

GUIDELINES FOR THE INTEGRATION OF THE

SCHOOL AND THE WORLD OF WORK

by

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SUMMARY

This study, largely based on literature review supplemented with information from lectures and interviews, attempts to give guidelines and make recommendations on how the gap between the school and the working world can be narrowed in South Africa to improve the employability of school-leavers.

Chapter One involves the identification of the problem to be investigated. Chapter Two defines the economic role and function of the school in society in the light of different theories and practices. The present state of education in South Africa, with specific focus on how it relates to the working world, is examined in Chapter Three. Chapter Four examines the relationship between schooling and the working world in selected countries. Chapter Five proposes some guidelines and recommendations for the closer integration of the school with the world of work in South Africa. Chapter Six deals with final conclusions, new perspectives and guidelines for future research.

Key terms

World of work; School's economic role; Economic theories; School-to-work integration; Career education; Entrepreneurship; Productivity; Business involvement; Apprenticeship; German education; Nigerian education; German dual system; Personpower needs; Basic education; Vocational and technical education.

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CHAPTER 1

PROBLEM FORMULATION, AIM AND METHOD

1.1 INTRODUCTION

The Republic of South Africa has for many years been generally regarded as a country with great potential and a bright future. It would be expected to be successful, having great resources, human and material. However, it is now plagued with numerous problems: social, political and economic. The weak component in the economic growth and development is the shortage of skilled manpower. Political instability has also stifled economic growth (McGowan 1993:39-40). The Reconstruction and Development Programme (RDP) of the African National Congress (ANC), describes the social, political and economic problems resulting from colonialism, racism, apartheid, sexism and repressive labour policies (ANC 1994:2-3). Education is a key component in increasing the availability of skilled manpower. Essop (1992:2) describes the crisis in education in South Africa. It has destroyed the culture of learning within many communities. During the struggle against Bantu Education many pupils died, many stayed at home, and many were involved in battles with the police. This resulted in a gradual and definite erosion of the need and desire to learn. The crisis is reflected in the lack of and disrepair of schools, overcrowded classrooms, high drop-out and failure rates, shortage of suitably qualified teachers and low levels of literacy and numeracy. This detrimentally affects the development and economy of the country. Its human potential has been badly stifled. This has been seen

in the lack of skilled labour.

1.1.1 Manpower needs

The economy has steadily declined over a number of years. According to Dr Chris Stals (South African Institute of Race Relations SAIRR 1992:xli-xlii), the average growth in gross domestic product (GDP) in the 1980's had amounted to only one % a year. Considering population growth, this meant a decline of 1,3% a year in GDP per head. Furthermore, SAIRR (1993:58) reports that real economic growth (GDP) measured at constant 1985 market prices was -0,5% in 1990 and -0,6% in 1991. SAIRR (1993:169) indicates that employment in the public sector had increased only by 0,8% between June 1990 and June 1991. According to a presentation by Dostal (1990:4), the growth in the Gross National Product (GNP) of South Africa decreased from an average of just below 6,0 % during the 1960's to around 3,0% during the 1970's and to 1,0% per year over the first seven years of the 1980's. The present pattern of industrial development and employment generation is not enough to accommodate the rapid increase in additions to the potential work force (i.e. 400,000 people per annum). Seven structural weaknesses in the economy have been identified in the Department of Finance's 1992/93 budget review (in Kane-Berman 1992:5). These were:

- falling per capita incomes
- high and rising unemployment and poverty
- skewed distribution of income
- unequal opportunities
- inflation
- shortage of skilled manpower, and low productivity of labour and capital.

According to the RDP (ANC 1994:58), the development of the economy and society have been profoundly effected by the fragmented, unequal and undemocratic nature of the education and training system. This resulted in the destruction, distortion and neglect of the human potential of this country. There were devastating effects on the social and economic development. This was seen in the lack of career paths for workers, the low motivation of workers and general productivity.

According to the Cape Chamber of Commerce and Industry report (Argus 17.10.1994), education needs a major revamp to meet the demands of industry and commerce and to enable the country to become more competitive. Unless education is improved, South Africa will be unable to compete internationally. As recipients of the products from secondary and tertiary institutions, industry and commerce believe that scholars and students are ill-prepared and often misinformed of the realities of the world of work (Argus 17.10.1994). The main factors for this are:

- curricula and syllabi taught are often academic and do not prepare the individual for the realities of the workplace
- teachers and lecturers have often "not left school" and lack an understanding of business-related needs, because they have not spent time in commerce and industry
- institutions of higher learning are producing high numbers of graduates in the social sciences and humanities, while entrepreneurial skills and potential are not encouraged
- matriculants view university education as "superior" to that of other institutions

- scholars and students are largely unable to think for themselves because of the prescriptiveness of the education system. This has resulted in a lack in lateral thinking and initiative
- there is an over-emphasis on "nice-to-know" subjects and an avoidance of "need-to-know" subjects.

These factors have resulted in ill-equipped human resources and low levels of productivity. According to Lascaris and Lipkin (1994:1), South Africa is a country of vast extremes. Having both First and Third Worlds, it has the most wealthy yet the most impoverished communities. The Human Sciences Research Council (HSRC) (1989a:1) states that the "economy has developed in a very undesirable manner in recent years". Furthermore, there has been stagnation in growth, employment has fallen far behind the natural growth of the labour supply and the country "now finds itself in the position of facing an ailing and apparently inappropriately structured economy" (HSRC 1989a:1). The HSRC (1989b:1) stressed that South Africa was a land of sorrow and strife and that the sorrow is mainly economic. This results in falling standards of living and further social unrest. Of particular alarm is that widespread poverty has been on the increase "... for more than a decade and show little sign of abating" (HSRC 1989b:1). In economic terms, the increase of poverty is a sign of wasted opportunity and resources. This is characterized by low productivity, which is caused by poor education and lack of skills. According to the HSRC (1989a:1) and the HSRC/National Training Board (1991b:1), the shortage of skilled manpower is a major problem.

According to McGowan (1993:44-45), the distinct cultural disadvantage of South Africa is its highly skewed

distribution and generally low level of skills and training. As a result of apartheid and Bantu Education, whites dominate all highly skilled areas of society, whereas about 60% of the economically active population are functionally illiterate. The lack of sufficiently skilled workers is a major economic constraint and disadvantage in comparison with other industrialising countries.

The South African government spends amongst the highest in the world on its education budget, yet it is not reaping the dividends commensurate to this huge investment. Cameron (Argus 17.10.1994) states that even though about 23% of the GDP was spent on education, South Africa was rated second last in a recent world competitiveness report.

The HSRC/NTB (1991a:179) claims that employers are left at present with the task of bridging the gap between the school and the labour market. Employers need to contribute to the economy and the country's growth, "but the level of expertise of those who enter the labour market makes this virtually impossible" (HSRC/NTB 1991a:179). Leading businessman, Dr J. Maree, describes this situation as the "mismatch between the output of the education system and the skills required by the market-place" (in Kane-Berman 1992:5). There is also the problem of the overqualified and educated unemployed (Lascaris & Lipkin 1994:1).

1.1.2 School curriculum

With regard to inadequate preparation of pupils, the writer has heard it expressed from various educators and educationists that there exists a gap between the world of work and the school. Largardien (Interview 21.11.1991), a

lecturer at the Peninsula Technikon, said that one lack in our schools is that most teachers have no experience outside of the school context. There is enough "book" knowledge and theory, but hardly enough first-hand experience. The HSRC/NTB 1991a:179) states that the educational level of many teachers supposedly undertaking the education of the youth do not meet the required standards for effective vocational education.

Esau (Interview 6.12.1991), a secondary school teacher, said that subjects offered in many schools are not related enough to actual work situations and that subject choices are too limited. There is a preponderance of teachers with training and qualifications in the humanities. Professor Kemp (Argus 9.4.1991), president of the South African Institute of Civil Engineers, called for an education system which provided for "... tertiary education with a reasonable balance between technology and the humanities". Beeton (1986:16) confirms this by stating that the experience and awareness of work before entry to the world of work empowers the individual in the education system because he or she can integrate theory and practice at school level. The young person thus prepares for a working future in a holistic and meaningful manner. Barker (1992:16) cites a number of shortcomings to the Republic's human resources development. These include continuous calls for education to be more oriented to work situations. Employers have problems in training people from the system because of the lack of a firm educational foundation. Training is too firm-specific, where workers must be retrained when making job-swaps. This points to a lack in nationally acknowledged qualifications. There is a lack of interaction between education and training, which function from two separate governmental departments, namely,

the Department of National Education (DNE) and the Department of Manpower. No formal structures ensure linkage and cooperation (Barker 1992:16). According to the National Education Policy Investigation (NEPI) (National Education Coordinating Committee (NECC) 1992g:12-13), there are pressing problems facing vocational education and training, such as the poor preparation in maths and science, especially amongst blacks, the dismal record of private sector training and the imbalance between enrolments between universities and technikons.

Generally, complaints emerge from industry and commerce that school-leavers are not schooled enough and that they have to be trained or re-trained to do some basic tasks. Badenhorst (1990:6-7) confirms this. Even pupils trained at school in practical subjects cannot use their skills effectively because these are not equal to that which is required in the workplace. Consequently, these school-leavers have to be re-trained at a cost in the work place. This means a loss in human resources and potential. NEPI (NECC 1992g:12) states that there is a poverty of vocational education at school and college level. NEPI (NECC 1992g:18) maintains that until recently the former apartheid state had effectively ignored the mounting educational and training needs of disadvantaged South Africans. No attempt had been made to implement a comprehensive youth training scheme as is done in industrialized countries. The Education Renewal Strategy (ERS) (Department of National Education 1991a:16) states that educational programmes are not relevant enough for learners and eventual employers and that they do not adequately "take into account the economic and personpower needs of the country". This is confirmed by the Curriculum Model for Education in South Africa (CMSA) (DNE 1991b:3).

The HSRC/NTB (1991b:2) stresses that no system of accreditation or recognition of training exists between employers in different industries and even between employers in the same industry. This leads to duplication of training, trainees being retrained in the same skills by different employers and an inability of a person to obtain work demanding skills already acquired. Furthermore, practical subjects like "Handwork" and "Woodwork", as they are taught, do not enable the school-leaver to utilize his skills effectively in the workplace. Training is too far removed from the practical work experience of the world of work. Visiting French building contractors were amazed to see so many workers on building sites here in South Africa. Antoine Faure (Argus 8/9.2.1992) said that they could do the work in France "with less than a quarter the number, almost all of whom would be skilled in some way". Therefore, there exists a need in South Africa for schools to impart skills more relevant to the real world of work.

According to the CMSA (DNE 1991b:vi-vii), education should be made more relevant by shifting from predominantly university-oriented education towards more vocationally-oriented education. This is important since thousands of pupils leave school before reaching standard 10. The ERS (DNE 1991a:3) states that "approximately 82% of white pupils entering school may be expected to reach Standard 10". The figure for coloureds is approximately 20% and for blacks 16%. These figures show an inordinately high drop-out rate among the two last-mentioned. Since many thousands never reach matric and enter the labour market prematurely, the question arises whether schools have adequately prepared them for the world of work. School-leavers who cannot use practical training and must be

re-trained are a liability to industry, to commerce and to the country as a whole (HSRC/NTB 1991b:2).

1.1.3 Training and teacher requirements

Education and training have always been seen as the means to overcome the problem of unschooled and unskilled manpower. This has been recognised as far back as 1981 in the HSRC Investigation into Education (The De Lange Report), and in the White Paper on Provision of Education in the Republic of South Africa 1983.

However, NEPI (NECC 1992e:4) states that, like other aspects of the Republic's education system, teacher education has been characterized by fragmentation, difference and discrimination. There has been no coherent teacher education policy or plan for national development. NEPI (NECC 1992e:8) relates that fragmentation resulted in no agreement about teacher education needs, especially with regard to the number of teachers required. Together with the manipulation of resources, the unwieldy system of bureaucratic control and a culture of secrecy, it had become extremely difficult to gain reliable data on which to base decisions about the present and future teacher education needs of the country. NEPI (NECC 1992e:11-12) describes the regional disparity in teacher supply. Equitable redistribution would be difficult, because many teachers would be unwilling to relocate, while others would lack the linguistic capacity or subject speciality to make redistribution feasible.

Furthermore, there is an imbalance in students studying at universities and technikons. Sonn (1991c:11), said it is difficult to understand tendencies in South Africa to-day in

which technical education is treated like the step-child. Universities receive a much better deal than technikons and technical colleges far worse treatment than teacher training colleges. "This makes one wonder if those in authority are serious about resolving our problems" (Sonn 1991c:11).

Van Vuuren (1989:6) stated: "Many informed parties are calling on universities to regulate their student intake and give priority to the scarcer kinds of expertise". He pointed out that the choice of courses were not in line with the country's manpower needs. It was a cause for concern that so many students, especially black students, were choosing popular degrees and subjects irrespective of whether these would secure them jobs or not. There is at present a need for technologists, but people are shying away from this, for example, 50% of all black graduates in 1985 received a B.A. degree (Van Vuuren 1989:6). According to the National Manpower Commission, we need a ratio of five technikon students to every one university student (Kane-Berman 1992:5). According to NEPI (NECC 1992g:16), student enrolments by major subject areas reveal serious imbalances. Far too many students enrol for the arts and humanities compared to those who enrol for science and technological education and training. Only four % of university students pursue engineering courses. At technikons only 19% do so, while only 29% are in the commercial and business fields.

Finance and funding immediately enters the minds of many South Africans when they hear statements like those above. However, the present problems in education may not be solved by the necessary money alone. The possibility arises that this is an education system problem. Therefore changes should be made in policy, legislation, teacher education,

implementation in schools and other educational institutions, financing, and the administration and control of education. The South African education system is not in line with the manpower needs of the country. The system may be inefficient in preparing pupils adequately for employment or the world of work. With regard to manpower needs, Van Vuuren (1989:6) confirms this and suggests that students and parents have not been sufficiently aware of the needs of the labour market. The present writer suggests that a solution should include many educators, educationists, planners and other authorities.

1.2 PROBLEM FORMULATION

Against the above background, the need exists to link the school with the world of work in order to meet manpower requirements in South Africa so that the necessary economic growth and development can take place. This problem is subdivided into the following sub-problems:

- What is the role of the school in terms of preparation for the world of work?
- What is the provision for integrating the school and the world of work in South Africa?
- What previous recommendations have been made concerning technical and vocational education? What structures are there at present to provide a link between the school and the world of work? What is the role of the technikons and the technical colleges in providing a bridge between the school and the world of work?

- What has been done in selected countries such as Germany and Nigeria with regard to the preparation of school pupils for the world of work?
- What guidelines can be formulated for the integration of the school with the world of work in South Africa?

1.3 AIMS OF THE STUDY

The aims of this study are formulated as follows:

- To investigate the function, purpose and actualisation of the school in preparing youth for their useful place in society in the light of major economic theories.
- To investigate the current educational provision in South Africa for integrating the school and world of work.
- To investigate what has been done in selected countries such as Germany and Nigeria, with regard to integrating the school and the world of work.
- To provide guidelines to improve the current situation in South Africa with regard to bridging the gap between the school and the world of work.

1.4 METHOD OF STUDY

The writer will conduct a literature study supplemented with informal interviews with academics, educationists, educators and pupils. These are reflected in the bibliography. The literature study will involve usage of local and international books and scientific journals. The writer will

attend addresses and meetings which will shed more light on aspects of this study. Details of these are found in the bibliography.

In the literature study conducted by the writer, attempts will be made to ensure that it stays objective by consulting as wide a variety of sources as possible. However, a certain degree of empathy will emerge towards certain concepts, because as Mouton and Marais (1990:16) say: "Objective ought not to be identified with 'neutral' or universally valid".

1.5 CHAPTER DIVISION

The first chapter refers to the background to the problem, formulation of the problem, aim and method of the study.

The second chapter deals with the function, purpose and actualisation of the school in society in the light of major economic theories.

The third chapter deals with a description and an assessment of the current position in South Africa. Previous recommendations regarding technical and vocational education will be looked at. An evaluation will be made of the attempts made to bring the school system in line with the world of work to see what has been achieved.

The fourth chapter deals with an investigation into what has been done in selected countries such as Germany and Nigeria with regard to integrating the school and the world of work. Successful as well as unsuccessful programmes will be assessed so as to provide examples and reference points in the devising of guidelines in the next chapter.

The fifth chapter provides guidelines to improve the current situation in South Africa in order to integrate the school with the world of work.

In the sixth chapter, final conclusions to the study are drawn and guidelines for future research are given.

1.6 SUMMARY

In this chapter, the significance of the problem and aim of the study were established. In South Africa the economy has been in steady decline. Much effort has been ploughed into education because it is generally perceived that education would contribute to the solution of the problem. However, despite all the effort and money spent on educational upliftment, the education system still fails to meet the manpower needs of the country. The country can ill afford the high loss in human resources and potential.

These problems have made it necessary for a closer examination of the education system, with a view to identify factors that cause the system to fail in meeting manpower needs, and to discover strategies that would solve this problem.

In the next chapter, the function, purpose and actualisation of the school and schooling in society will be addressed. The influence of different economic theories and practices on their societies, including schools, will be included. The place of vocational education and vocationally oriented education will also feature.

CHAPTER 2

THE ECONOMIC ROLE OF THE SCHOOL

2.1 INTRODUCTION

In Chapter 1, the need was described for linking the school with the world of work in order to meet personpower requirements in South Africa so that necessary economic growth and development can take place. In order to arrive at possible guidelines to achieve this, it was recognised that the various approaches to schooling, vocational and vocationally oriented education should be assessed.

This chapter will assess the function of the school and schooling in society. Various economic theories and systems will be assessed and how these impact upon theories of education and schooling. In 2.2 the role of the school, its historical development, its primary function, the influence of values, requirements of industry and critique of schooling are dealt with. Capitalist based theories will be dealt with in 2.3 and 2.4 deals with the socialist command economy. 2.5 deals with Market Socialism and 2.6 deals with education and work.

2.2 THE ROLE OF THE SCHOOL

Thomas (1991:10-11) explains various theories or perspectives on how the school functions in society. The structural-functionalist theory states that the bureaucratic organization of schools parallel that of business and other social relations outside it. The legitimation perspective

states that education policies, school structures and curricula are utilized to convince people to accept the existing political system and its present office bearers as legitimate and the best. Thomas (1991:25-26) points out that goals, aims, objectives, purposes and ends are best for identifying results that education is expected to produce. There are seven types of focusses in goals, namely, producing good people (social/moral education), preparing skilled communication (basic education in reading, writing and speaking), developing well-informed people who understand the physical and social universe (liberal education), promoting individuals' physical and mental health (health and safety education), developing faithful supporters of the society (citizenship education), producing efficient workers (vocational education) and equipping individuals to realize their self-selected destinies (self-fulfillment education). Every society attempts to provide all seven, but they can differ on objectives in promoting each type, or the agencies to be responsible for the various goals. Carnoy (1985:11) maintains that common good theories allow schools to serve the citizens of society and to contribute to increased productivity and social mobility. In the institutionalist-functionalist model the state uses schools to "normalize and reunify individuals into a new hierarchy" (Carnoy 1985:11). But instead of the good of the masses it turns out for the good of the bureaucracy, especially those at the top. Here the role of schooling is to produce power relations, which are "derived from a social class structure rooted in economic activities" (Carnoy 1985:11). Because education is a state apparatus, for what it stands and how it functions depend on the interpretations of the particular state. For instance, Marx saw public education, especially technical education, as the

basis for developing an industrial worker able to perform manifold tasks in modern production. He felt that "such education was inconsistent with capitalist production and could only fully emerge under socialism..." (Carnoy 1985:14). It is related that Althusser (in Carnoy 1987:30) saw education as "the reproduction of labour power and the reproduction of the relations of production in the capitalist formation". The diversified skills needed for the modern labour force are produced by the school. The two most important elements for maintaining capitalist society are the reproduction of its skills and submission to its established order (Carnoy 1987:30).

The present writer is inclined to accept the common good theory of learning in schools, combined with the structural-functionalist theory, and to reject the legitimation perspective because man is a social being and cannot exist outside a social setting. People are essentially part of social experience (Reid 1986:23). The role of the school is that of a socialisation agency alongside other agencies like the family, religion and social services. Modern society employs the agency of the school to educate children so that they can fit into their community. Education is a process in which children are converted into useful, responsible adults. This process involves more than just the acquisition of knowledge. There is cultural transmission so that children can fit in and associate with others (Shipman 1975:3; Tyler 1982:44). This moral education accompanies social training, which is to ensure that each generation shares certain common values. The school attempts to exclude negative influences contrary to these accepted values. Shipman (1975:4) suggests that a school must "approximate a hot house". School staff attempt

to organize school to be a model of accepted life: "moral, disciplined, hard-working and friendly" (Shipman 1975:4).

2.2.1 Historical development of the school

The school system of today is the product of thousands of years of historical development. Evidence exists that schools were started as far back as about 3000 BC in the ancient civilizations of Babylon, Egypt and China. According to Laska (1979:98), evidence exists that before 2500 BC the Sumerians had started schools where writing was taught. These were the first known complex societies, having improved farming methods to produce surplus food for the courts, towns, priests, soldiers and administration. They had to rely on written communications and schools were developed to produce small numbers of literate bureaucrats, such as priests (Shipman 1975:8). This had an economic and political purpose in that effective communication, including reading and writing, increased the economic efficiency and stability of the state. Preliterate societies stressed the need for the child's acquisition of skills and values that would enable him to play his part as an adult. Moral education and social training were stressed and an occupation would be learnt informally. As societies evolved into complex forms, division of labour was increased and individuals played different roles in many different institutions (Shipman 1975:4-5). According to Gardner (1993:128), early schools were designed for the memorization of important texts, which were mostly religious and written in languages other than those spoken by the community. Sacred texts formed the basis of the curriculum, because they were regarded as containing ideas and practices important to the survival of the community. Classical Arabic

learned by Muslim scholars, or Greek, Latin and Hebrew learnt during the Renaissance, had little meaning to many pupils who toiled to master them. Practical missions gave students the chance to master the vernacular. They were taught written language and the rudiments of whatever arithmetical system and notations that were in use in their culture. This knowledge was necessary to facilitate trade and other economic interests in their society (Gardner 1993:128-129).

According to Cole (1973:56-57), the economic structure of Greece depended on a system of slave labour and agriculture. Production was the job of the slave population. During the grandeur of Rome, craftsmen and artisans were a mixture of slaves and freemen. Skills were acquired mostly through family apprenticeship. Records show their vocational training reflected the transition from apprenticeship to the school system. The early Romans, being very practical, emphasized the utilitarian objectives in education. Training was intended to produce a good as well as skilled man. For this purpose they employed an apprenticeship system within the family and its connections. The custom was that a boy would accompany his father in his daily round of business and learn how to conduct himself according to his father's manner and example. Entering a profession, he would attach himself to the retinue of a successful man, usually a relative or family friend. He would learn by example instead of deliberate instruction. Among the lower classes, there was a similar custom which led to trades and various levels of business. Apprenticeship entailed reading, writing and simple measuring. Future citizens were taught to be good and earn their living. There was no aim to be erudite - "book learning" was incidental (Cole 1973:57). Baird (1992:7-8)

maintains that the early Romans applied good management in their society and organizations. They assumed that work was best done by specialists trained in one set of responsibilities.

To the Jews, before the diaspora, the synagogues became the centres of education for the people. Prayers were recited there, but the main purpose was not worship, it was instruction in the Law. The word used for the exposition of the Law was "teaching". Jesus "taught" in the synagogues, as well as Paul and other apostles (Boyd & King 1980:55).

The Middle Ages, from 300 AD to 1300 AD, show strong elements of apprenticeship in the formal training of the monks who copied the manuscripts. Apprenticeship and manual labour were built into Christianity and the preservation of learning. However, education was controlled by the church and the masses remained illiterate. The Renaissance and the Reformation from the fourteenth century saw a great revival of learning, but the role of industrial education was the same: the father-son or master-apprentice system. Some masters were also required to teach reading and writing (Cole 1973:57).

According to Barlow (in Pautler 1990:8-9), only from the 1880's did the idea of combining trade and academic education in the school take root. From the sixteenth to the nineteenth centuries there were occasional pointers to industrial education. Mulcaster's Merchant Taylor School in Britain taught drawing after 1561. John Locke promoted trade education and Rousseau wanted Emile to learn the carpentry trade. Pestalozzi developed educational theory and practice where industrial education would feature strongly during the

formative years. Neef continued this theme from 1825, teaching with physical labour combined with moral and intellectual culture. Von Fellenberg conducted educational experiments with strong social implications. Literacy instruction was combined with agricultural and industrial instruction. Manual activities were stressed. Barlow (in Pautler 1990:9-10) states that colonial America also practised apprenticeship. An education-conscious labour force developed rapidly with private charity schools and mechanics societies. During the nineteenth century these tried to supply educational advantages of apprenticeship to factory workers.

During the seventeenth century two aims of vernacular schools were that students learn as much economics and politics to enable them to comprehend their daily world of home and state, and the most important principles of the mechanical arts, so that they may not be ignorant of the world around them (Cole 1973:338-339).

During the seventeenth and eighteenth centuries among others there was the vocational school. In England these were supported by Parliament grants or by local taxes. There were two types, schools of industry and workhouse schools. They trained boys to enter trades and girls to enter domestic service. Being mostly vocational, they also included elements of reading, writing and counting. The schools were usually held in shops or industrial plants where the children were working (Cole 1973:437-438). In America the corporation schools developed as industrialization continued. Employers supported some form of industrial education. They would usually conduct their own system or support the plan of industrial training in the public

schools. Usually improved machinery required more skilled workmen. The company would establish a school which would teach subjects directly related to the work of the firm (in Pautler 1990:19-20). The economy of a nation would lead to a social need for industrial education. From 1870 to 1906 much attention was focused on the general problem of industrial education. Criticism was levelled at the common school because it failed "to reflect the life for which it was supposed to prepare youth" (in Pautler 1990:22).

Laska (1979:98) stresses two momentous events in the development of schooling, namely, the emergence of the Western European universities in the twelfth century AD and the universal access to schooling during the nineteenth century in Western Europe and the United States. He presents two reasons for the significance of the former, namely, the university and the university-preparatory school had usually presented the highest prestige study programmes, and the university has become the central institution in the world's school systems. Universal access to schooling has already been adopted in most of the school systems outside Western Europe and the United States. The specific procedures to bring this about have been accepted on a world-wide basis. This includes employing compulsory education laws and restricting access to the highest prestige institutions and programmes. Everybody is subjected to the direct effects of schooling. The average person spends about ten years of his life as a student. Hence, the world's school systems and structures and their societal role have emerged from particular historical factors (Laska 1979:98-99). O'Donnell (1985:243) traces this trend towards compulsory education. There were economic factors for this. Changes in production methods because of the industrial revolution led to large

factory units, which in turn led to increased urbanization and organized labour. A need for more educated workforces emerged, resulting in the need for the present school systems and compulsory education.

2.2.2 The primary function of the modern school

Divergent views exist on the function of modern schools. Some argue that schools will end poverty while others contend that they maintain poverty. Educating children for citizenship in schools has always been contentious, especially with content and purpose. There is also conflict over the use of public schools to pursue economic goals (Spring 1991:5). Spring (1991:6) distinguishes between public and private goals for schools. These can differ. According to the society, public goals for schooling can either be political, social or economic. Political goals use education systems to mould future citizens, maintain political stability and shape political systems. Social goals endeavour to reform society, give social stability and direct social development. Economic goals include using school systems to sort and select talent for labour markets, plan economic development and develop human capital. Spring (1991:19) cites the main argument in support of schooling: "...education increases national wealth and advances technological development". School contributes in two ways: socializing the future worker for the modern organization of industry, and aiding economic growth through sorting and training the labour force. Sorting would be identifying individual abilities and interests and determining the best type of individual training and future employment.

Kostecki (1985:5) stresses that, although the school has many facets, one of its primary functions is the transmission of knowledge. This has two elements, namely, learning to know and learning to do. The latter is concerned with technical productive skills and social productive skills. Schools are thus instruments of economic policies. A further function is screening, in which students are evaluated and granted certificates. Kostecki (1985:7) talks of the "evaluation mechanism of schooling" which purpose is "primarily the grading and classifying of individuals". Another function of schooling is its beneficial nature for public good. Kostecki (1985:10) distinguishes two aspects concerning this, namely, schooling enhances collective well-being and promotes government ideology. The former includes consolidating national identity, promoting a national language, self-sufficiency and self-reliance, strengthening local institutions, reducing cultural dependency on outside influences, and ensuring the physical health and well-being of citizens.

Schooling also reduces the rate of unemployment. Kostecki (1985:12) cites three ways this is done, namely, adjusting the skills of the unemployed to market needs, reducing the supply of the secondary labour force by offering alternative occupations and changing more unemployed people into students. O'Dowd (1992:6) points out that "schools should not be turned into vocational training centres", but should make people trainable for wide varieties of jobs. Dahwa (1986:185) indicates that in depressed labour markets, vocational and technical courses should not be the panacea for creating jobs or providing a remedy for the educated unemployed, open unemployment or poverty. Courses should be regarded as attempts in the search for occupational

commitment from students.

2.2.3 The school in industrialized societies

According to Blakers (in Poole 1992:54-55), industrial societies have developed an informal yet a clearly recognisable process by which children move from the status of child and youth to that of an adult. Husen (1990:10) confirms this and states further that entry into the full-time paid workforce has become the crucial point both materially and symbolically. It is the signal that youth have been accepted as adults and have been accorded place and status as members of society. In this process of transition, education has retained the position it has held throughout history, namely, the period of preparation and qualification for adulthood. The links between education, work and the transition of youth to adulthood are thus close and long-established. The prosperity of a society depends on the capacities and efforts of its people. Its character is closely related to the material and social recognition it accords to its variety of occupations. In most societies, work has been an obligation, stemming from the imperatives of continued existence. Husen (1990:10) states that schooling has increasingly become the central means of achieving status and gaining a successful career in working life. Blakers (in Poole 1992:55) suggests that in industrialised societies, it has become as much a matter of morality as of necessity. The work ethic imposes a strong social consensus that each member of the community ought to work at an activity acceptable to the society in order to contribute to the wealth of the society, to progress and to contribute to his own moral and material well-being. To the young school-leaver, it is clear that the social recognition

of adulthood depends on successful entry to the paid workforce. This has been the main and ultimate end of the education process, beginning with schooling. Husen (1990:29-30) describes a situation of rising expectations resulting from the increasing availability of education. Parents and youth are keenly aware of the decisive role formal education can play in determining future social roles and job status. It has widely become the case that school marks are instruments of competition.

Blakers (in Poole 1992:55) states that despite what is said about the irrelevance of schooling to work, in industrialised societies there has been a kind of symbiotic relationship between the practices of schooling and the needs of the labour market. While from time to time much has been hoped of schooling as an agent of social reform, the prime purpose of education since the nineteenth century has been to provide a workforce appropriately graded and trained for the needs of the labour market.

2.2.3.1 Society in transition

Bloom and Pearl (1994:10) state that, regardless of one's underlying philosophy, the most critical purpose of schooling is to prepare pupils so that they may be productive members of society. The future will require high levels of education and technical expertise. Clark (1993:210) maintains that today's school children are tomorrow's customers and potential workforce. Because prejudices often develop from ignorance, it is important to keep local communities informed about the kinds of work that are performed in firms and to allow future employees to see firms as desirable places for future careers. Schools and

colleges are obvious places to focus such activity. Such links can be mutually beneficial in a number of ways. Exchanges can be arranged in information, personnel, experience and facilities. Through this a cross-fertilization of ideas and expertise should take place. Local firms could supply placements for pupils to gain work experience and for teachers to broaden their knowledge. When resources are shared, economics can be effected. There will be less duplication of effort as the precise requirements of various educational establishments throughout a region become evident.

Husen (1990:27) suggests that rapid social change has affected old institutions and values. The impact of new technology is threatening the traditional idea of the school's role. According to Blakers (in Poole 1992:56-57), the modern school finds itself in the middle of a changing society. Education is again being regarded as a key to economic survival. It is as important as economic and industrial restructuring. The task of education now is to produce the highly educated and skilled population considered essential in a rapidly changing and technologically driven society. Behind unemployment statistics are labour market changes. Both have fundamental and far-reaching effects on work and living. Blakers (in Poole 1992:59-60) indicates that perhaps the most painful aspect of present change is that productivity depends more on technology than on human input. The growth of unemployment is a recent phenomenon in which productivity increases while employment decreases. Sophisticated machines are steadily displacing human effort and imposing unwanted leisure on whole sections of the population.

2.2.3.2 The role of the family

A code generator is an agent that gives off codes of meaning to children. Of all code generators, the family has the first and most direct influence on children. Butorac (in Poole 1992:99) states that the family influences the way children view work. It is a small group in which children experience intimate and caring personal relationships with significant adults. Butorac (in Poole 1992:101) states that family influences can be both specific and diffuse. Children may be directly tutored in some work habits and attitudes, yet in others they may unconsciously adopt family values and orientations. By the nature of its influence, it predisposes children to consider certain forms of work. The family provides work role models and helps to define options for children from an early age, that is, it sets in motion a dual process. It offers certain options and eliminates others. Children perceive "work" to refer to certain occupations in the marketplace or the paid workforce constrains their consideration of other possibilities. The family becomes the prime agency for defining and narrowing work options. Children acquire from the home concepts, skills and attitudes not unlike those of their parents. There is also socialisation to the world of work. Butorac (in Poole 1992:91) showed this in an analysis of the work code of rural children. It is a socially generated code, not taught explicitly, but available in an identifiable form in their community.

2.2.4 Schools of economic thinking

The present writer will investigate the two main branches of economic thinking, namely, capitalism and communism, as well

as that between the two extremes, Market Socialism. The implications of each for the school and educational provision will be assessed.

The school's one function is that of a socialization agency in society. Societal structure is determined by its economic base. Every society rests on an economic foundation (in Robinson 1981:27). According to Robinson (1981:6), the Marxian view includes materialism (how we know about the world) and dialectism (we are in constant interaction with the material world). People change the world and are changed by it. The driving force behind the Marxian view derives from the relationship people have with the means of production. This relates to the control people have over their labour, its inputs and outputs, and the necessary technologies to complete tasks. Thompson (1989:40) describes capitalism as having the freedom to purchase the various components of the labour process. For the capitalist, the capacity to work is transformed into a means of producing value. The capitalist also needs to exchange commodities for a price greater in value than the production costs.

Close relationship exists between political and economic foundations. Various societies expect the school to prepare the youth for the political and economic system (good citizens and skilled workers). Socialism views schooling in terms of contributing towards production (Carnoy 1985:14-15).

2.2.5 Requirements of industry

Industrial societies change rapidly. Families after the Industrial Revolution could no longer prepare children for

occupations because of changes in work, which required other skills in different settings. This task was taken over by schools and colleges (Shipman 1975:5-6). Social change forced the expansion and specialisation of schooling (Shipman 1975:9). Schools had to prepare for a new life because of changed urban and industrial values. Included were fast changing production techniques needing advanced division of labour in big concerns. There were also new class and prestige structures with new occupation relations and power distributions. Values became more rational and materialistic. Economic influences required progressive educational extension. Required for the increasingly complicated technology was a highly skilled labour force. Accompanying administration, government and communication needed professional and clerical skills (Shipman 1975:9-10). Thompson (1989:13) confirms this and states that industrialism replaced capitalism. Technology requires rising levels of skill and responsibilities. Mal'Kova (1988:46) makes similar statements for socialist society: accelerated tempos of scientific-technological and social progress force upgrading of general education and specialist training. Boutwell (1994:15) describes the new demands of the Information Age today in information-based high-tech workplaces. The world will increasingly demand learning "sophisticated processing skills, synthesizing ideas, creating formulas and developing capabilities of indentifying and solving problems" (Boutwell 1994:15). Toffler (1980:16) states that so profoundly revolutionary is the world today that it challenges all our old assumptions. Old ways of thinking, old dogmas, formulas and ideologies are no longer fitting. New values and technologies, new lifestyles and modes of communication are emerging. Toffler (1990:9) talks of being "bombarded by the future". There is

now the use of robots and sophisticated manufacturing methods heavily dependent on computers and information. Toffler (1980:23) uses terms like the Space Age, Electronic Era, Global Village, post-industrial society and super-industrial society to describe contemporary society.

2.2.6 Critique of schooling

Disillusion has been expressed in the school and schooling. Illich (1981), in his book "Deschooling Society", places doubt on the effectiveness of schooling. Deschooling has had an impact and challenged the existence of institutions. De-institution could lead to improvement, but there is a worldwide move towards increased institution and bureaucracy. Illich (1981:14) attacks obligatory schooling because inequality exists even in schools of equal quality. Obligation is economically unfeasible, polarizes society and creates an international nation caste system, determined by average attendance. Equal educational opportunity should not be equated with obligation. Modern society regards it religiously, yet it cannot fulfil promises to the poor in a technological age (Illich 1981:16-18). Richmond (1973:8) points out that schools have failed because many pupils leave without learning much of anything that is of lasting value to them. Freire (1972:46-47) describes the negative aspects of schooling as a mirror of oppressive society. These practices include:

- teacher teaches and pupils are taught
- teacher knows everything and pupils know nothing
- teacher is the subject of the learning process while pupils are mere objects.

The school system holds the illusion that most learning results from teaching. Teaching does contribute but most people gain most of their knowledge outside of school. Robinson (1981:166) confirms this. Illich (1981:20; 35) claims that speaking, thinking, loving and feeling are learned outside the school. New skills and insight are supposed to come from learning, yet social roles and learning are melted into schooling, which does not promote learning, because of the insistence on certification. Promotion depends on an opinion others have formed. When learning results from instruction, then role and job selection depend increasingly on mere length of attendance (Illich 1981:19).

Belief in certificates makes skills teaching scarce and creates market manipulation. Arts and trade teachers become less skilful, inventive and communicative than real craftsmen and tradesmen. Certified teachers then block the way for other competent persons to learn and instruct (Illich 1981:22). Dahwa (1986:40-41) connects this chase after certificates to the emphasis on examinations, especially in Africa. Examinations have been criticized by developed and developing countries. Schools end up spending too much of their time and resources on preparing for examinations, which tend to produce people good at reproducing factual information, but unable to show intellectual initiatives and attitudes. Tyler (1982:63) suggests that sociological research "should aim to liberate teachers from the dehumanizing constraints of their own situation". According to Illich (1981:29), work and leisure become separated: the spectator/worker arrives at the workplace (school) to fit into a ready-made routine. Illich (1981:36) stresses that schools "create jobs for

schoolteachers, no matter what their pupils learn from them". School initiates certain myths. The myth of unending consumption teaches that instruction produces learning. The existence of schools produces the demand for schooling. There is the myth of measuring values such as imagination. The myth of packaging values emerges in the promotion of school curriculum. The myth of self-perpetuating progress is related to schools teaching the value of escalation. Schooling is an open-ended process counted in pupil-hours. The population becomes educated according to school standards (Illich 1981:44-47).

Illich criticizes the economic role of the school on two levels. It develops self-defeating consumption of services, alienating production and institutional dependence (Illich 1981:77), which result in failure to teach skills and develop creativity. According to Toffler (1990:166-168), there is a revolt against bureaucracies because they cannot handle the pace of change today. The bureaucracy has two key features, "cubbyholes" and "channels". The former are specialized executives with power derived from control of information. The latter are managers with power from the control of information flowing through channels. Political pressures, budgets and other forces can freeze these cubbyholes and channels into place in institutions like schools. This results in the freezing of knowledge organization and obstructing reconceptualizations. High-speed decisions, because of high-speed change, cannot occur in bureaucracies because of their power struggles. Bureaucratic power crushes creativity, eliminates intuition and replaces it with mechanical idiot-proof rules (Toffler 1990:178).

2.2.7 Conclusions

Society continually undergoes changes. Since the school should reflect its society, it should undergo changes and adapt (2.2.5). This has been traced historically. From the earliest of times schooling of a sort occurred because of the need to train youth in certain essential skills required in the community. There were times in history when learning skills and work were left to slaves. For hundreds of years, especially during the Middle Ages, learning occurred in the family apprenticeship situation. There grew a separation between book learning and practical work, but from the 1880's there was a gradual turn towards including the utility value of learning (2.2.1).

Although schooling is a universal sociological phenomena, social, cultural, economic and historical factors give it a particularly individual nature in different communities. How schooling is actualized in a community, is dependent upon its economic, cultural and ideological base (2.2.4). Robinson (1981:31) agrees with Illich and Tyler about the school. It has failed even in its aim for equality, because the oppressed must first learn to relate to the school's culture before they can learn its message (2.2.6). To Dahwa (1986:244) the problem seems that "the school is educating for a society which is not there". The present writer notes the critique of people like Illich and Toffler and suggests that this problem is related to the growth of bureaucracies, which, in order to survive and function effectively, hinder the process of change and adaptation. The issue is raised of just how effective is schooling and compulsory education in bringing about actual learning and skill teaching? For this study, this means the emphasis on schooling and compulsory

education should be reassessed and placed into another perspective. Possibly other agencies for learning and skill teaching should be considered. In the next section capitalist based theories and how they relate to education will be assessed.

2.3 CAPITALIST-BASED THEORIES

2.3.1 Introduction

According to Maasdorp (1989:6), there are in general two types of economic systems in the modern world: the market and the centrally planned economies. Both have a number of variants. Maasdorp (1989:17) contends that there is no pure model of either central planning or market economy anywhere. According to Pickersgill and Pickersgill (1985:6-7), systems are classified for a purpose. They are primarily political, social or economic in identity. Each has many characteristics, which together make up a particular label. Regardless of this, each society has political, social, economic and religious dimensions. Economic systems are multidimensional, having complex social and cultural interactions. They are classified by: who owns the means of production, who makes economic decisions and what mechanisms are employed to ensure the execution of these. Pickersgill and Pickersgill (1985:9) mention sources of variation among systems, such as: property relations - public or private, bases of decision making - individual or collective and mechanisms for allocating resources - market or command. Pickersgill and Pickersgill (1985:9) classify systems into the following: market capitalism, the mixed economy, the socialist command economy and market socialism. Capitalist systems are characterised by private ownership of the means

of production, individual decision making, market mechanism to coordinate decisions of individuals and the voluntary exchange of goods and services. In such a system the school is regarded as a socialization agent, where students are prepared to fit into the society as useful citizens.

Blackledge (1985:134-135) states that education serves to perpetuate the capitalist system. There is the constant quest for profit and an inequality in the ownership of productive and financial resources. Maasdorp (1989:10) states that Marxian theory views capitalists as exploiters because they appropriate surplus value. To avoid this, the means of production should be socially owned. Pickersgill and Pickersgill (1985:11-13) describe the socialist command economy has the state ownership of the means of production, central decision making and no individual enterprise. The school is seen as the agent to train units of production to be of service to the good of the state. The mixed economy is one with a combination of capitalist and socialist practices. The school is viewed as a place to socialize pupils for useful places in society. There is much scope for individual development and creativity, but certain aspects of society are state controlled.

Market Socialism involves publicly owned enterprises influenced by market forces. Supply and demand are determined by the market, but central planning boards exist to decide according to shortages and surpluses. The implication for the school is that there is place for individuality and creativity. Society is more open for individual incentive, unlike the pure communist system (Pickersgill & Pickersgill 1985:12-13).

2.3.2 The Progressive Reformatory Pedagogical approach

2.3.2.1 Introduction

This is a type of structural-functionalist theory. It has the ideal of capitalism, while many see elements of socialism in it. A proponent of this is Van Schalkwyk (1986). Elements of it operated in the South African education system, sometimes referred to as Christian National Education. Education and teaching are regarded as acts of opening up (unlocking)(Stone 1985:28), which take place in a planned manner or casually. When planned, it is described as formal education. The education system is established specifically to provide formal education, which usually takes place in institutions of learning (Stone 1985:28; Van Schalkwyk 1986:135). Educational institutions occur only on the local and executive level of the education system. These institutions are places of teaching and learning (Stone 1985:21). The various structures within the organizational structure perform their differentiated functional tasks. Other social institutions determine the learning content, the aim and policy of education, its support, its management, the training, appointment and administration of the personnel needed for it (Van Schalkwyk 1986:137-138). Essentially the authentic purpose of and the foundation of the education system is educative teaching (Van Schalkwyk 1986:15,36).

2.3.2.2 Community needs and the occupational world

It is undesirable for a country's education system to concentrate solely on providing for the educational needs of individuals. The learner's education could become unsuitable

for service to the country. For instance, a country cannot utilize a generation with only primary education, or one with chiefly academic subjects and no others. Educational programmes should not be one-sided in the courses they offer. This is confirmed by Beeton (1986:16). For example, everybody cannot be a civil servant or clerical worker. Venter (1985:37) confirms this and furthermore talks of the need to broaden the educand's view (Venter 1985:93,101). On the other hand, a well-developed education system can unfold a community so that tasks and projects, which it could never actualize before, are achieved. Conversely, the further a community unfolds, the more advanced and differentiated its educational needs become (Van Schalkwyk 1986:46). Educational needs arise in relation to various facets of community life, such as demographic circumstances. This would involve infrastructure such as transport, communications, electricity and water. Engineers, motor mechanics and other workers with special skills would be needed. Human life highlights the need for food, health, agricultural services and the vocations these offer. There are psychological and analytical aspects. These highlight the need for psychologists, teachers and scientists. The language of a community highlights the need for developing communication (written and spoken). A wide range of vocations derive from this, such as writers and journalists. Other facets include cultural, social, economical, religious and aesthetic fields, each of which are served by various vocations (Van Schalkwyk 1986:46-47).

Every community develops needs, such as, food, housing, transport, education and health. Undertakings are launched from within the community to supply these. The aim is to make a profit or supply a service. Opportunities for work

and an increase in the community's prosperity are created. Business undertakings form either the private or the public sectors. The former indicates the initiative and enterprise of individuals. The latter relates to state involvement, usually in areas such as postal and health services (Van Schalkwyk 1986:191-192). Business undertakings are usually interdependent. Agriculture would need fuel and tractors, education would need the building industry and the clothing industry would need the cotton industry. Many undertakings are dependent on education because they need educated, trained and literate people to function effectively. On the other hand, education needs industry to create the jobs for its charges because it is useless to train people without ensuring they have the opportunities to realize their training and talents.

Education cannot exist for itself. Van Schalkwyk (1986:193) states that this is "the basic misconception of most African countries today in their aspiration for universal education (the right of every person to read, write and calculate)". This right must be qualified. It is a right only when the opportunity is there to utilize it meaningfully in a suitable vocation. Educational and business undertakings need to unfold in conjunction with one another. Hence, certain societal structures need to be established to effectively liaise between the two sectors of community life (Van Schalkwyk 1986:193).

2.3.2.3 Nodal points in the education system

The education system is bound to a firm unity by nodal points or structures, within which all social bonds are represented. For education, these nodal connections should

collaborate with one another. They are bodies with interested parties working collectively together on their reciprocal interests on behalf of education. Nodal points can be divided into two groups: essential (permanent) structures and temporary (utilitarian) structures (Van Schalkwyk 1986:228). Permanent nodal points include connections between the school and state, school and family, board of control and management council, department of education and families/communities, and department of education and the professional world. Through representatives from industry and education the two undertakings meet and reach agreement concerning fields of study, courses and programmes in order to ensure that they both gain from the liaison (Van Schalkwyk 1986:229-231).

Utilitarian nodal points are temporary collaborations when temporary needs arise. A cultural body may liase with a school to promote a relevant culture. Other examples are nodal points between schools and organizations to preserve and promote environment, tourism and science (Van Schalkwyk 1986:231).

2.3.2.4 Conclusions

The present writer agrees with Melnick (in Alarcao, Kant, Leite, Grimmett & Melnick 1991:48) that all governments, "despite their varied ideologies, traffic in the realm of what their leaders claim to be the promotion of the public good". Intentions may be good but methods employed determine outcomes (2.2). Economic systems are classified by the ownership of the means of production, the style of economic decision making and the method of implementing these decisions. The school is a microcosm of its society and

education can be for a particular purpose, including indoctrination.

The Christian Reformatory Pedagogical approach (2.3.2) has the ideal of giving the school its rightful place in society, but critics have perceived it as the basis for the racist education system (called Christian National Education). Segal (1993:182) criticizes the subject Fundamental Pedagogics and indicates that its procedures of critical scrutiny are "arbitrary and contradictory" (Segal 1993:182). He concludes that its concepts of etymological and phenomenological analysis are flawed (Segal 1993:188-189). However, educative teaching should be regarded as the foundation of the education system. Several nodal points (2.3.2.3) should work with the school in the interests of education. It is important that education should not exist for itself. Evidence of this misconception can be seen in many African countries that aim for universal education. One example is Nigeria which will be assessed in chapter four. Education and business should cooperate with each other to ensure that school-leavers have relevant skills.

Because of the rapid changes in modern industrialized society, the needs of industry (2.2.5) require flexibility in schooling. The demands of the Information Age (2.2.5) require new skills to keep abreast of new technologies. The next section will deal with the mixed economy.

2.3.3 The mixed economy

According to Pickersgill and Pickersgill (1985:13-14), the mixed economy has aspects of capitalism and the command economy, which entails central planning of demand and supply far away from actual markets. It differs from market socialism in that it places greater reliance on individual decision making, private property and allocation of resources according to market determined prices. It differs from competitive capitalism in the larger share of collective decision making in the economy. This includes powerful groups like organized labour, big business and government. It differs from the command economy in the dominance of market forces and the big role of private capital. Since the 1970's Britain and France have mixed economies but their economic performance has forced a rethink. In Britain, Thatcher attempted to stop state interference into ownership and management of the economy. In France Mitterand regarded poor performance as a result of inadequate control and requested socialism.

2.3.3.1 Thatcherism

Ridley (1992:6) contends that Thatcher, prime minister of Britain from 1979 to 1990, was strongly influenced by Keith Joseph, a member of parliament and Industry Secretary under her leadership. Joseph promoted the policy of the Social Market after 1974 because socialism had failed. He wanted demand management replaced with money supply control, expenditure control, lower taxes and privatization. Market Socialism meant free markets with the state providing social security, free healthcare and free education. To meet societal needs and expectations, wealth had to be created

through efficient use of scarce resources. This needed a vigorous, efficient and well-motivated private sector. The surplus profit produced would go for welfare-service development (Ridley 1992:6-8). The basic beliefs of Thatcherism are: sound money, trade union reforms, welfare targetted to where it is needed, low taxes and the rebuilding of Britain's world position (Ridley 1992:13). Thatcher worked towards greater privatization and away from the "dependency culture" (Ridley 1992:15). She wanted "sound money and good housekeeping", with minimum public expenditure leading to minimum taxation. Social welfare should go only to the genuinely needy (Ridley 1992:17). Although Britain has a mixed economy (Heidensohn 1979:69; Pickersgill & Pickersgill 1985:14), Thatcher was anti-socialist because it conflicted with her faith (Ridley 1992:18). Her most important concept was "Freedom under the rule of law" (Ridley 1992:19). Extremes of capitalism, like substantial inherited wealth and landed gentry with large estates, were also not approved of. Good housekeeping meant that money should be ploughed back into business. Corporate managers should not be paid inordinately large salaries. Money should be earned and should not be from fathers or social security (Ridley 1992:19).

2.3.4 Conclusions

Capitalist societies adopt the principles of individualism, competition, ownership of property, free flow of goods, services, prices and markets. The driving force is the pursuit of profit, decentralized decision making, independent firms and prices determined by market forces (Heidensohn 1979:69). However, theory conflicts with reality, as small competing firms are replaced by groups of

firms creating monopolies and manipulating prices. Private gain from consumption does not always equal total social gain with ill effects like pollution. Overproduction and underproduction of goods can occur (Pickersgill & Pickersgill 1985:50-51).

Capitalism as practised in South Africa appears to follow the principles of a mixed economy. The systematic provisional inequalities of the former National Party's Christian National Education ideology "simply failed to provide the skills necessary for a modern economy" (Heese & Badenhorst 1992:9). Maasdorp (1989:17) states that Slovo (former Minister of Housing), businessmen and liberal economists agree that South Africa should continue to have a mixed economy. Mixed economies like that of Britain and France encounter problems in balancing socialism with free enterprise. This may have implications for a uniform education policy, how schools are managed, and the direction and content of lessons. For instance, education legislation and curriculum reforms would be difficult with the two ideals competing with each other. The role of business and other nodal points would become unclear. These factors could hinder effective education. The main feature of South Africa's present economic policy is the RDP. The RDP (ANC 1994:78-79) states that reconstruction and development would be achieved through the leading and enabling role of the state, a thriving private sector and active involvement of all sectors of civil society. The RDP (ANC 1994:81) includes plans for urban and rural development, industrial strategy, support for small and micro enterprise and job creation, all of which require human resource development on a massive scale. Maasdorp (1989:19-20) states that a major driving force in post-apartheid politics is the redistribution of

incomes and wealth to rectify the historical legacy (apartheid) of extreme inequality. There is now the removal of regulations which had impeded economic activity, especially the participation of blacks in the economy.

2.4 THE SOCIALIST COMMAND ECONOMY

2.4.1 Introduction

A socialist command economy is at the opposite extreme to competitive capitalism. It is for this reason that it should be examined. Although communism had failed by the early 1990's, socialistic thought still exists. For many decades communist ideology presented the strongest opposition and contrast to capitalism. Many countries, especially in eastern Europe, are still in the process of dismantling communist ideology and practice. Therefore, it should be compared with other economic systems. Its characteristics are: public ownership of the means of production, collective economic decision making and resources allocated from the planning elite. This includes all decisions concerning production, investment and distribution. Individuals own no resources, are directed to their employment sites and are supplied with planner designed consumer goods. Enterprises and firms are publicly owned and operated by local managers appointed by and totally obedient to planners (Heidensohn 1979:68; Pickersgill & Pickersgill 1985:11-12;). The best example of the communist state and education system is the former U.S.S.R. Since 21.12.1991 it has become the Commonwealth of Independent States (CIS) (Europa 1993:2397). Communism endorsed totally different economic theories and systems. These actualized themselves in the education and school systems. The social and economic systems derived from

some basic ground motives, which permeated the education system. The ground motive was collectivistic, communistic, idealistic, atheistic, anti-capitalistic and expansionistic. The ground motive manifested itself in the creation of the Soviet school system (Pickersgill & Pickersgill 1985:11-12; Vos & Brits 1990:131).

2.4.2 Fundamental principles

The groundmotive is the driving force behind the thoughts and actions of an individual or community. Vos and Brits (1990:39) state that the development of culture, including that of the education system, unfolds from a ground motive. National education systems form integral parts of the culture of a community. Vos and Brits (1987:38) state that without culture "there can be no education, and without education no culture and no community." The education system is actually more than a school system. It has roots in a particular socio-cultural system and the state plays a particular role (Vos & Brits 1990:31-32).

According to Matyash (1991:5-6) there was a discrepancy in Soviet educational practices between stated aims of education and the means to realise them. Soviet schools aimed for the all-round development of the personality. In the process, social realities were totally ignored. A stagnant, dogmatised aims-formula inverted social reality for its own ends and produced conflicting outcomes. Teachers were supposed to plan activities according to a certain standard. In reality, planning activity was distorted. Teachers applied a rigid formula; a ready-made plan and followed it as a prescription. This produced a stereotype; a person following prescriptions. The life path of an

individual was predetermined from early childhood by the social order. Matyash (1991:7-8) maintains that the social standard was so fixed that it was considered anti-social if somebody started to challenge this system. Curriculum policy was highly prescriptive and indoctrinatory, especially in the content of the humanities. The knowledge in the humanities that students gained did not contribute to their professional thinking and doing. Generally, those encouraged in an education system to follow prescriptive programmes do not develop their abilities to think critically and reflectively.

2.4.2.1 Dialectical reflection and atheism

Soviet thinkers believed that all values originated in and out of social conditions. There was no need for the supernatural because everything was based on dialectical reflection. This was characterised by two aspects: constant change and activity. Robinson (1981:6) described Marx's view of the inevitability of change. Truth was revealed by political action, where ideas were put to the test in the world. This conflict, as Brubacher (1969:28) described it, was similar to what Robinson (1981:7) described as a "process of class struggle". Man could reflect on society and this was eternal. Marx viewed people "in constant interaction with the material world" (Robinson 1981:6). Man was capable of knowing the universe and its laws. He could accelerate, control and direct the changing process. There was only a materialistic reality and there was no knowledge outside of man for his guidance. Communists believed there was no god. This made man master of his own destiny. Communist education taught youth to be anti-religious. According to Oelkers (1992:79-81), the highest goal of

socialism was the perfection of humanity. It was not merely a redistribution of property or new organization of labour; it was towards the highest earthly determination of man himself. It was realised that the fundamental socialist ideas could only be achieved by rigid state control. This would be done by the cultivation of a proliferating bureaucracy.

2.4.2.2 Anti-capitalism

Communists worked toward universal equality and a one world socialist state. Because it believed in no private ownership or use of labour for personal gain, it was totally anti-capitalist. Marx argued that "under capitalism, man's real condition is one of alienation" (Robinson 1981:6). Toffler (1980:86) also describes the anti-capitalist nature of socialism and communism. According to Toffler (1990:216), Marxist revolutionists believed that power flows from the owners of the means of production. Workers would remain powerless unless they seized the means of production from the capitalist class. Brubacher (1969:28) describes the twentieth-century struggle between capitalism and communism as the "economic perplexities honeycombing education". Communists aimed towards making people units of labour. Individuality may be lost for the sake of the whole. The aim was to create a classless society, which is a Marxist-Leninist ideology. Education was utilized in this aim to achieve a classless collectivist society.

2.4.2.3 Collectivism

Collectivism forms a basic feature of communist society. There is no individual property. The means of productivity

are owned collectively, namely, by the state. Collectivity is a vital aspect of communist morality. Only that which promotes communist collectivism can benefit communism (Truter 1989:179-180).

The present writer uses the former U.S.S.R. as an example here because it was the leading example of the socialist command economy and communism. It was an elaborate federal structure with 15 constituent Soviet Socialist Republics and 22 subordinate autonomous republics. In reality the Russian Federative Socialist Republic dominated of the other republics. In theory it was a democracy but in practice it controlled and dominated the whole Soviet society (Vos & Brits 1987:140). Almond (1974:271) states that "official mythology" places the industrial worker as the leading class, but actually "the outstanding rewards of the society are reserved for others". Workers are constantly pressurized towards increased production, but have little opportunity to express discontent as workers or consumers (Almond 1974:271).

2.4.3 The ground motive in communist education

2.4.3.1 The relationship between economy and education

The ground motive of atheism, collectivism, idealistic communism, anti-capitalism and universalism are actualised in an economic system that denies individual or private property. Earning money to buy goods or to sell for profit is prohibited. The state launches and controls almost all enterprises. Individual interests in the system are second to the state and its collective interests. Private initiative and motivation is discouraged (Truter 1989:175).

Industry cannot play an independent role alongside the state. It functions merely as an extension of the state (Truter 1989:193).

Direct links existed between the economy and education in the former U.S.S.R. The basic communist principle of economic determinism had a considerable influence on the education system. The state planned the economy and dominated education. Vos and Brits (1987:143) state that educational control in the U.S.S.R. was "in the hands of the only party, the Communist Party of the Soviet Union". According to Almond (1974:261), the dominant political culture was essentially the culture of the Communist Party, especially of its elite members.

2.4.3.2 Polytechnical education

The link between the economy (labour) and education is seen in the system of polytechnical education. This is another Marxian idea of linking labour with education at a very early stage. The aim is to increase productivity and to develop the human being as a whole. Polytechnical education must teach or introduce basic principles of production processes and also basic skills of the various branches of industry. Labour training is therefore a basic aspect of Soviet education. Marx was of the opinion that "an early combination of production labour and education was one of the most powerful means of transforming society" (Truter 1989:176). Vos and Brits (1990:132) state that the aim of polytechnical education was to eliminate the differences in esteem between mental and physical work, and to emphasize productive labour. According to Vos and Brits (1990:137) polytechnics have the same status as universities. Some

specialize in fields like shipbuilding, pharmacology and hygiene.

Verbitsky (1988:123) describes how a network of education institutions had developed over the years in the former U.S.S.R. These collectively made up the system of public education. Verbitsky (1988:125) claims that "a true integration of higher education, production and science" had been achieved. This leads to a reconsideration of the "traditional contents and methods of teaching", "the development of new flexible forms of training, mastery of professional skills and the retraining of personnel" (Verbitsky 1988:125). He states further that the U.S.S.R. had gained much experience in training personnel in this cooperation between higher education, scientific institutions and enterprises. There were special enterprises using programmes "which combine classroom instruction and practical work" (Verbitsky 1988:125).

Atutov (1986:26) describes how the polytechnical knowledge system permeated the general education school. Pupils learned about the "scientific foundations of technical procedures and technology", "production economics and the organisation of production". Various pathways were created which integrated the secondary polytechnical training system. The shaping of polytechnical knowledge had various stages from elementary to senior grades. The term "building bricks" was used for each year's instruction in the construction of the "edifice" of polytechnical knowledge (Atutov 1986:34). It was Marx and Engels who demonstrated the objective need for and defined the aim of polytechnical education. Lenin had proposed its acceptance in the 1919 Party Program, so that youth could be familiarized in theory

and practice on all "the fundamental branches of the production sector" (Atutov 1986:8).

The philosophy and approach towards polytechnical education has since changed with the failure of communism. According to Kitaev (1994:111-112) the basic trend in current development is to copy Western educational standards and degrees. The drawback is that with uncoordinated decentralisation, these standards and practices are often copied blindly without adaptation to the ex-Soviet mentality. There is a tremendous social demand for new knowledge and skills corresponding to democracy and market economy. Much of public resources is wasted in teaching overspecialised disciplines while students and graduates are defenceless in a market economy.

2.4.4 Educational and economic limitations

Communist ideology permeated the communist education system, which was created in order to make a Soviet system based on Marxist-Leninist principles. The ideology determines the very nature of the communist education system (Truter 1989:166). Historically, the peasants had to be lifted up from their state of backwardness. Workers had to be equipped for their task of constructing socialist society. The education system was characterised by the aim to help the socially backward with opportunities to become socially mobile (Truter 1989:168).

However, the Communist Party dominated the political system, society and hence also the education system (Vos & Brits 1987:38). Robinson (1981:7) states that the ruling group in a society "controls not only the productive forces within

society but also the ways of thought". The party viewed education as the greatest opportunity to mould future generations of adults. This included political propaganda and indoctrination, which was expected of every teacher. Most people involved in education were members of the communist party. It was expected that every principal should be a devout member in order to effectively supervise communist education. The educational aim of the party was the instruction of communist ideology. Education was to help establish party orientation, protect pupils from ideology that hindered fulfillment of political aims and to prevent disloyalty to communist ideals (Truter 1989:173-174). This extended to the classroom. The teaching method was characterised by repetition of slogans and indoctrination. The teacher was not free in his method. The curriculum was strongly prescriptive and spelled out subject-content and the roles of teacher and pupil (Truter 1989:180). A single curriculum involving one set of syllabi and textbooks was used for general education throughout the former Soviet Union. The collectivistic ideal made choice of subjects, directions of study according to individual ability, talent or interest almost non-existent (Truter 1989:188). The party emphasised political aspects to benefit political leaders instead of the child (Truter 1989:174; Vos & Brits 1987:38).

Kitaev (1994:111) points out that this has been changing. It is difficult because, despite the move to democracy and a market economy, the education system remains centralized and dependent for decision making and finance on the national level. Kitaev (1994:119-120) asserts that change seems progressive on the surface but the control of education just underwent a change of signboards. There is the problem of long-serving personnel reluctance to take any initiative

unless forced to by the market environment. Many teachers are still convinced communists and find it hard to abandon or criticise long cherished beliefs. Although textbooks are being revised, it is difficult to change the mindset of those taught in the courses under the old regime. Kitaev (1994:121-122) indicates that the failure of Soviet-made theory and practice, and its market incompetence have created a high demand for foreign curricula and teaching methods. With no clear accreditation system, higher education institutions call themselves what they prefer: college, university and others. They issue self-made certificates and experiment with the length and organisation of the school year, teaching materials and methods. The labour market is unbalanced with a deficit of low-qualified workers and an abundance of overqualified specialists. This results in situations where janitors with a secondary diploma are offered more pay than that of university professors. "Perestroika" (Gorbachev's restructuring programme) (Schiller 1991:941) has not yet improved the condition and prestige of teachers. Miners still earn about three times as much as teachers.

According to Pickersgill and Pickersgill (1985:253-254), the Soviets believed they had no unemployment, yet they experienced labour shortages. True unemployment was disguised through inefficiency. They admitted seasonal and disguised unemployment in agriculture, which caused under-utilized human resources. Evidence shows that shortages of raw materials and spare parts resulted from short run fluctuations in output. Managers allowed themselves safety margins of productive capacity by over-ordering equipment, which would then stand idle for years. Central planners lacked the necessary information to

ensure that resources be used to the optimum benefit. Plans were so taut that bottlenecks resulted, causing under-utilization of capital and labour. The economy was seriously drained by a large bureaucracy expending resources on continuous supervision of lesser units. Pickersgill and Pickersgill (1985:255) state that attempts to decentralize failed as the size of the bureaucracy continued to grow. Traditional management assessment and perpetual uncertainty of material supplies enhanced inefficiency. Hoarding and placing quantity before quality were continuous problems. Quality targets conflicted with other targets like labour productivity, cost reduction and growth of output. Planners did not have proper guides towards the optimal allocation of resources. Prices did not reflect relative scarcities, rate of production transformation, or rate of consumer substitution. Interest and rent were not included for decades. Evidence of this static inefficiency were found in pollution of the air, water and natural environment. This occurs in any society where prices do not include total social costs. Maasdorp (1989:7-8) confirms these points and mentions that the model attempted to balance supply and demand among all enterprises through setting up "material balance sheets". The statistical demands were tremendous. Soviet mathematical economists had pinned their hopes on input-output models and computers, but these had proved unable to cope with the tasks of detailed planning. In practice, plans were not related to reality. The system bred irresponsibility, inefficiency and permanent deficits. It became hostile to innovation and quality, demoralized the workforce and made life difficult for the consumer.

2.4.5 Conclusions

During the late 1980's communism showed signs of failure. It collapsed in the early 1990's (Schiller (1991:xxiii;923;941)). The chief reason was economic because the communist state could no longer operate with its failing communist socialist economic practices. Some reasons have been cited for the failure of the "pure" socialist command system to perform, namely, centralized physical planning and allocation of supplies, the role of the bureaucracy, the lack of incentives, the inadequate price system and taut planning (Pickersgill & Pickersgill 1985:265; Schiller 1991:16-17). The implications for the school have been extensively explained under educational and economic limitations (2.4.4). The system encouraged indoctrination, was centrally planned, closed and prescriptive. The learner was an object to train for state production. Incentive and creativity were ignored. Ability, talent and interest were sadly neglected. During 1990 to 1992, the USSR admitted that its ideology and economic practices had failed. The Cold War was over and Eastern Europe is now opened. The former communist republics now struggle to convert their economies to more workable systems by incorporating capitalist principles and practices. The next section deals with the system that realised the failure of central planning.

2.5 MARKET SOCIALISM

2.5.1 General

The theory of market socialism grew from the ideas of some socialists and communists who concluded that central planning suited the early stages of socialism, but greater

industrialization needed some alternative organisation for further progress (Pickersgill & Pickersgill 1985:281-282). Schiller (1991:941) states that even before the failure of communism was publicly acknowledged, most of the communist countries had dabbled with market incentives. According to Pickersgill and Pickersgill (1985:12-13), the main features of market socialism are that enterprises are publicly owned and influenced by market forces. Individual state-owned enterprises compete in markets for inputs and sales. Decisions on allocation of resources are made collectively and also by individual producing and consuming units. The primary mechanisms for product exchange are prices and markets, which determine prices by the forces of supply and demand. Otherwise central planning boards would decide according to their perception of shortages and surpluses. Firms could freely decide what and how to produce according to prices. The difference to the competitive Market Economy is the ownership of the means of production. Accumulated wealth may not be in the form of property. Production profits are transferred back to members of the economy, in line with the state-devised allocation scheme. It is flexible - the state may or may not play a significant role in the allocation of resources. Schiller (1991:941) asserts that the main component of the transition was price reform. The distorted prices dictated by central planners had generated the wrong signals. To correct these wrong signals, communist countries had to raise previously subsidized prices.

2.5.2 Market socialism in Yugoslavia

Several East European communist states attempted aspects of Market Socialism but abandoned these after Soviet pressure

(Pickersgill & Pickersgill 1985:289). Heidensohn (1979:76) calls it "participative socialism": state-owned means of production, workers collectives determine their use, and share losses and profits. According to Maasdorp (1989:9), Yugoslavia effectively jettisoned its command economy in 1950 by adopting a system of worker self-management. Maasdorp (1989:11) asserts that agriculture is now mainly in private hands. According to Pickersgill and Pickersgill (1985:282-283), Yugoslavia adopted a market socialism differing slightly from the Lange-Lerner model. Lange, a socialist and top economist, had to devise an economic system based on socialist property relations, consumer sovereignty and decentralized decision making. He impressed other socialists to recognise the conditions of static and dynamic efficiency. This model has the familiar assumptions of the capitalist market economy. It assumes that all capital, plant and equipment are owned by the state. The firm is an organization managed by a civil servant, whose responsibility is to produce goods at minimum social cost. The state is unconcerned with what is produced, how it is produced, or to who it is sold. Pickersgill and Pickersgill (1985:290) state that Worker's Councils were introduced where employees assumed responsibility for their firm's management (labour-managed market socialism). Councils comprised of staff, labour forces and professionals - a democratic miniature of society. Industrial capital was neither owned by private individuals nor state agencies. Title rested in society: "everyone in general and no one in particular" (Pickersgill & Pickersgill 1985:290). Workers could not own the firm; they were merely trustees. Firms received capital on a loan basis but were held legally accountable for debts. Creditors could not gain control of firms through councils. Firms being autonomous, independent

of state and outside owners, can purchase all inputs in free competitive markets.

2.5.3 Conclusions

Theoretically, labour managed market socialism is not fully developed and incomplete. Initially workers abused the system because they came from circumstances of lack, shortages, inefficiency and poverty. However, the discipline of the market is sobering to both the workers council and the capitalist entrepreneur. Pickersgill and Pickersgill (1985:292) state that in practice, the Yugoslavian economy "has accommodated the new organizational forms very well".

It is difficult to evaluate market socialism because of its short and varied history, and the limited parallels. The Yugoslavian economy was and is still underdeveloped, finding it difficult to maintain world trade and to survive. Its function, growth and innovation indicate its a viable alternative to centrally planned socialism (Pickersgill & Pickersgill 1985:307). According to Maasdorp (1989:12) an important theoretical deficiency is a tendency for labour-managed firms to be capital intensive rather than employment creating. This had implications for the Third World and is one of the reasons why the Yugoslavian model has declined. The attraction towards this model was its democratic nature: all workers could contribute to managerial decisions. Experience has shown, however, that the notion that workers can manage collectively in their spare time is utopian. In practice, workers do not have the time, skills or inclination to participate in management. Being elected by the workers, they are ill-placed to resist the latter's pressure for excessive wage increases.

2.6 EDUCATION AND WORK

2.6.1 Introduction

According to Davis (in Poole 1992:212-213) many countries have invested a great deal of their resources in education for economic and labour market purposes. Many times these strategies have given disappointing results. Evidence of failure in both rich and poor countries is educational oversupply along with educational under-achievement. Many developing countries, such as Bangladesh, have remained poor. Massive educational campaigns have failed to lift literacy levels as was hoped. Meanwhile unemployment levels have tended to rise among the educated. The same pattern is emerging in developed countries. In the USA and Western Europe many people are over-qualified for the job market while others are educationally inadequate. Much of this over-education is disguised by unemployment being shifted on to lower education levels. Meanwhile, education of the disadvantaged is inadequate for their effective performance in the labour market. For strategies to work effectively, the establishment of a three-way harmony between education, households and work should be planned and implemented. This should replace the fragmented and uncoordinated educational economic strategies and educational social strategies that exist in several countries. There is a need to develop educational, economic and social strategies that are holistic and integrated. Beeton (1986:16) also calls for this in terms of a society providing a range of choices for workers, a work environment offering challenges for self-fulfilment and an education system creating opportunities for future happiness. Harrison (1993:306-309) says the failure of education as a tool to aid development

and equal opportunities is not because governments failed to expand education. It has been a boon industry in the Third World. Despite all the effort and expense, much went to create social and economic misfits and much was wasted. All the effort and sacrifice was to alleviate poverty but it increased inequality. The poor have less access to education and when they do, they are more likely to fail academically. Non-enrolment, absenteeism and drop-out rates increase in relation to distance from school. The drop-out wastage is a chronic ailment in poor countries. The few years at school of a drop-out are wasted years of servitude. He would have hardly picked up anything of use to him in his working or domestic life. Those from poor homes are likely to be undernourished and understimulated (Harrison 1993:309-311). This study assesses this holism or lack of it in the integration between the school and the world of work.

2.6.2 Work experience

According to Evans and Poole (in Poole 1992:111), the obvious function of work is to earn a living. However, working for a living has much wider importance. It provides a sense of individual identity, imposes a time frame on daily life, provides for interaction and shared experience with other people, is a source of friendship, forces activity, and involves people in wider goals and purposes than their own immediate concerns. However, for many people work is less of an opportunity for self-fulfilment than a major constraint on their freedom. Mason (1988:6) challenges the common viewpoint towards paid work: "the myth that only paid work is real work" (Mason 1988:6), and "the hoax of full employment" (Mason 1988:6). He highlights household productivity and own work. Continuing unemployment in the

formal work sector, and the huge and mostly unrecognised contribution to the national welfare of the base economy, are interwoven. Own work includes paid employment, casual work, and household and family production. A future trend will see individuals and groups able to restructure their means of livelihood. This will be in response to changing external situations, like lessening full-time employment opportunities. Own work combines the base economy with work options in the formal sector so that individuals and families have a variety of ways to support themselves (Mason 1988:10-11). Bown (1988:19-21) also sees the need to change the common notion towards paid employment. Because of the reduced human input into all jobs resulting from new technology, there will be an increase in the service or informal economy. Unemployed groups should be encouraged to organize themselves cooperatively to "avoid being brainwashed on the virtues of competitive enterprise, where this would lead to fragmentation and failure" (Bown 1988:21). For people to gain access to meaningful work, they must first grasp the nature of their society and the economic structures within which they are working. Liberal education has thus a vocational value. The present writer views these points as important in view of the question Boutwell (1994:14-15) asks: "will the jobs be there?" The trend will be towards increasing unemployment, advancing technology and the demand for more sophisticated skills at the workplace.

2.6.3 Precursors to work

Many provisions now exist to improve the bridge between schooling and work. Formal provisions within school are career education, counselling and guidance services, and

work experience. The experience of schooling itself might in some cases also be seen as a preparation for working life. Alternative programmes exist which emphasize social life skills, vocational knowledge and academic work. Outside of school, together with higher education courses, direct training in specific areas is provided by apprenticeship programmes. The Australian Technical And Further Education (TAFE) programmes are concerned with business studies, computer use, hospitality and catering, decoration and others, and one-year pre-vocational programmes in trades, business studies, catering and other areas (in Poole 1992:112). According to Schackel (1994:22-23) several partnerships exist between enterprise and schools, especially in developed countries, to improve the youths' preparation for working life. These partnerships need to be extended and improved. Jamieson (1991:55-57) emphasizes the need to bring school work closer to real work, that is, to promote economic and industrial understanding in the curriculum.

2.6.4 Bridges to adult work

According to Evans and Poole (in Poole 1992:113-114), knowledge and attitudes are important in this regard. Knowledge is concerned with specific job information and skills, with general cognitive, social and psychomotor skills, and general knowledge. Attitudes involve the way youth feel about work and school settings and to their major concerns in the transition from school to work. It also involves the two major systems of self-perception: evaluative aspects of self-concepts in particular contexts and the orientation youth bring to these contexts. Adult life increasingly requires social skills such as exercising

responsibility to others, negotiation and reciprocity, and other social skills like making friends, conversing, dealing with others in a working environment and cooperation. Knowledge of the world of work includes understanding work as a social phenomenon, and knowledge of values and expectations in workplaces. This means the responsibility of working in return for wages and how to handle workplace relationships. Thomas and Smoot (1994:34) assert that today's jobs demand higher-order thinking skills of workers. Amongst other things, they would have to learn to be flexible and respond to change rapidly, perform multiple tasks, work cooperately with people of different personalities, races and sexes, and to identify problems. Boutwell (1994:15) states very much the same and asserts that the future curriculum involves students in sophisticated use of integrated technology such as computers and other components of technology. Figueroa and Del Buono (1994:26) also emphasize the students' need for higher-order skills, regardless of their chosen paths beyond high school. Husen (1990:107) describes how minicomputers can be used for instructional purposes. Pupils should be made familiar with computers because of their growing role in society. School education is placing stronger emphasis on "computer literacy". Hallett (1994:57) asserts that one of the goals of education is to prepare pupils for work, but by the year 2000 there will be little requirement for manual skills or pure academic qualifications in the job market. Employers will require people who can offer transferable skills like communication, problem-solving and interpersonal skills.

Evans and Poole (in Poole 1992:113-114) state that specifically, youth seek information for job choice, like the kinds of activities involved in particular jobs. They

also seek competency in particular job skills and knowledge of a particular industry. Tensions exist between some features of understanding social aspects of the working world, developing broad cognitive and social skills, and learning to fit in and cope with particular jobs. One criticism is that some programmes overemphasize fitting students into existing society, instead of making them more socially aware. The attitudes youth direct specifically to work relate mainly to the type of tasks in the job, their difficulty and amount of effort required, and opportunities for meeting people and making friends.

Evans and Poole (in Poole 1992:116-117) assert that career decision making is an important aspect. This is associated with school counselling and explicit career education. It may indirectly emerge from part-time work experience or experience arranged by schools or certain colleges like TAFE. Career counselling has two major approaches. The one aims at matching the person to particular work environments using tests, questionnaires and interviews. The other involves process-oriented models that place more emphasis on the pupil learning to make his own career-oriented decisions. Decision making is an important aspect of work preparedness. The ability to make decisions is related to vocational knowledge, that is, a clear and stable picture of one's goals, interests, personality and talents, and reflection on one's preferences in various work aspects.

2.6.5 Work-related activities of school and colleges

According to Evans and Poole (in Poole 1992:117), unlike work experience, achievement-oriented programmes do not involve youth actually working in industry. Instead,

situations are set up in school where youth are directly involved in adult-like roles of responsibility, decision making, cooperation with others to attain group goals, and aiming to benefit specific community client groups. There are a number of examples, like running a restaurant for school or community use and assisting in running a school-based creche. Other projects involve pupils setting up mini-enterprises, aimed at involving them in kinds of cooperation, business practices and concepts, management procedures and others that are typical of small business. Mini-enterprises, apart from profit-making, provide a controlled educational bridge to adult roles. Related to this approach is work simulation programmes which involve students in making low cost simple products. The emphasis is not on efficiency of enterprises, but in simulating contextual, management and working conditions. Like mini-enterprises, they involve consultants from industry. The aim is to help students to understand the total industrial setting. Evans and Poole (in Poole 1992:118) state that work education can also include inquiry-based programmes. Work is more the object than the actual participation. Work shadowing involves students going to the workplace as outside researchers. They observe all the activities of the individual at work. This has the potential for students to amass information for later analysis and experiential knowledge of particular workplaces. This knowledge can be combined with written sources to assist pupils to understand work as a social phenomenon. Schools can provide an important bridge to adulthood by increasing a more active role in the life of the school. School can be experience akin to work. This can be better realized through a curriculum imparting economic and industrial understanding, that is, incorporating the world of work

(Cumming 1988:545; Jamieson 1991:55).

2.6.6 Work experience programmes

In Australia work experience refers to two week programmes to allow school and TAFE students, doing a year pre-vocational courses, to visit a work site. They participate in instruction, observation and work tasks. The aim is vocational education to help pupils to understand work as a social phenomenon, to gain general knowledge of the character of workplaces and specific knowledge of particular jobs and related skills, and to help formulate vocational goals. They also help to promote social and life skills, particularly in relating to management and co-workers, and personal competence (in Poole 1992:119). The main thrust seems to be a socialising one in line with employers' desires to fit students smoothly into the workplace (in Poole 1992:122).

2.6.7 Expectations of education

Harrison (1993: 315-317) talks of the modern phenomenon of the educated unemployed and the great expectations people have of education to achieve individual success, group development and self-sufficiency. The rural and urban poor make great sacrifices for their children in education, many of whom fall by the wayside (drop-outs). In many cultures manual work has a low status and is avoided. The school certificate is the ticket out of poverty and the depression of rural life. But in selecting desirable, better-paid jobs, competence and intelligence are not measured by skill on the job, or performance. They are assessed mainly by the number of examinations a man has passed. Harrison (1993:319)

suggests that when examinations matter so much, rote learning is encouraged and creative, adaptable thinking is suppressed. It also contributes to huge numbers of repeaters, especially in the Third World. The aim for the higher paid jobs leads to excessive numbers of aspiring candidates for limited jobs, resulting in an oversupply of qualified people with exaggerated hopes and the educated unemployed. Harrison (1993:321) believes there is little hope of an early end to this trend unless radical policies cut deep into excess income differentials.

2.6.8 Career guidance and lifeskills in the classroom

According to Ainley (1990:62), the position of careers education within schools and their relation to careers services is an indicator of the importance attached to vocational education. Careers education, according to Lindhard and Oosthuizen (1985:20), produces knowledge and awareness in pupils of their opportunities in the world of work. They discover their own needs, abilities, limitations and interests, and which jobs are open to them. It shows them how to choose a job and how to progress in it. The programme should show them how to cope with unemployment and underemployment. It teaches pupils how to cope with change and prepares them for the transition from school to work, or to university, technikon or college.

The present writer feels that unemployment and underemployment should be an important component of the programme. Guidance programmes must include self-employment, entrepreneurship and productivity as themes. In schooling systems, where most of the stress is on preparing for careers and where employers supply all the jobs, not enough

is being done to develop entrepreneurship. In economic recessions school-leavers should be better equipped to deal with no jobs and unemployment. There should be an awareness of self-employment. The hardest hit are usually the least educated, the young and the unskilled. One can agree with Lindhard and Oosthuizen (1985:84-85), who state that teachers must put reality into the programme by discussing problems of unemployment and methods of overcoming the worst effects it has on the individual. The first remedy is to encourage pupils to stay at school as long as possible. This keeps the youth off the streets and increases their chances of employment when they eventually leave school. Collection of unemployment benefits, knowledge of the tactics of finding and getting jobs, further education after school, the use of work-groups and self-help societies, should be discussed.

2.6.9 Conclusions

An important function of schooling is to socialise pupils to understand work as a social phenomenon. Work is not only a means to earn a living. It involves individual development and fulfilment, cooperative interaction with others and the economic necessity for the community. The traditional viewpoint towards paid work needs to be altered. Base economy, own work and home/family productivity need to be recognised (2.6.2). Pupils should be influenced and made aware of all aspects of work, including self-enterprise (2.6.5). Tensions exist between social aspects of the working world, developing broad cognitive skills and particular job skills. The important process of career decision making is done specifically by school counselling and career education (2.6.8). It also emerges from part-time

work experience and from work experience arranged by school or college (2.6.5; 2.6.6.) There are two major aims: matching the pupil through tests and leading him to his own decision to a vocational identity through process oriented models.

2.7 SUMMARY

This chapter focussed on the universal phenomena of the school and schooling in society. There are divergent viewpoints of the role of the school, both for and against. The former (2.3.2) is promoted by pedagogic considerations and the latter (2.2.5) by agitators for deschooling and de-institutionalizing society.

No other organization like the school exists. It is a microcosm of its society, yet it also reproduces its society. Various societies exist, each characterized by its particular ideological, cultural and economic base. The influence of the ground motive on the economic system of a community and its education system is quite evident. There is no totally "pure" economic system, because aspects of capitalism, socialism and market forces are present in various degrees (2.3.1). Various economic systems and theories were assessed in order to understand how they impact on schooling. An effort was made to look into the relationship between the education system and the world of work. Communism and capitalism stand at opposite extremes to each other. Overlap exists in societies; in between lie mixed economies (2.3.3) such as found in Britain, France and Germany. In South Africa, the idealist Christian Reformative Pedagogical outlook, which dominated education after 1948, based on capitalism, views two basic purposes for education,

namely, the transmission of existing knowledge, culture and other realities, and the preparation of the learner for a general and specific mandate (2.3.2). The former is to fit the child into society and the latter deals with what he is going to do for a living.

The Soviet ground motive (2.4.3) of atheism, communism, collectivism and anti-capitalism, created an education system dominated by the Communist Party. The state owned everything. Individuality was sacrificed for group interests. The education system was arranged for production. There was a build-up of polytechnical knowledge throughout all stages of education (2.4.3.2). Educational successes have been made. The literacy rate and the standard of education of the lower levels of society have been raised. For instance, the number of doctors and medical services rate amongst the highest in the world.

There are criticisms for the communist system. Many claim that it is unpedagogical, because it leaves no room for the development of the individual. Its denial of private rights, use of labour and its aim to make units of labour out of people, are unacceptable to the Christian pedagogical outlook. God is replaced by the state, which desires everything to be done for it and the collective good. The "pure" socialist command system had a poor performance as evidenced in the demise of the former USSR.

The basic disadvantage of socialist economies (2.4.4) is its inability to produce efficient allocation of resources. The task is too difficult when performed centrally and remote from markets. What was necessary is participative decision making in state-owned firms operating in competitive

markets. This could free socialist economy from inefficiency in allocation (Heidensohn 1979:75-76). Yugoslavian market socialism (2.5.2) presented an example and an experiment. Experience has shown that workers do not have the time, skill or inclination to participate in management and tend to support excessive wage increases. According to Maasdorp (1989:19), social democracies such as Germany and Sweden offer another model for a mixed economy in post-apartheid South Africa. They combine an efficient private sector with a well-developed social welfare system. However, a successfully functioning social democracy presupposes an efficient state apparatus, an integrated market, good flows of information and a level of income enough to sustain the welfare system. The last-mentioned is absent in South Africa. Much of the population is imperfectly integrated into the market, the bureaucracy is too big and mean per capita incomes are not high.

The relationship between the school and work (2.6) was assessed. It is important to have a curriculum that includes economic and industrial understanding, while encouraging active business and education partnerships. Programmes to introduce pupils to the world of work are also essential (2.6.5; 2.6.6). Productivity and entrepreneurship should form part of career guidance programmes in the classroom (2.6.8).

The next chapter (3) will examine educational provision in South Africa in the light of the link between the school and the world of work.

CHAPTER 3

THE PROVISION OF EDUCATION AND ITS LINK TO THE WORLD OF WORK IN THE RSA

3.1 INTRODUCTION

The previous chapter dealt with the function, purpose, basis and actualization of the school and schooling in society. Although a universal occurrence, school "cultures" differ, depending on their economic, political and socio-cultural backgrounds. Chapter 2 addressed the theoretical basis of education and school systems. The influence of the ground motive and the economic system on a community's educational outlook and practice was seen. Different theories and approaches were studied, namely, capitalist-based economies such as Thatcherism, and socialist systems such as that of the former USSR and Yugoslavia. This chapter deals with the link between the school and the world of work in South Africa.

South Africa has been recently in the difficult process of transition. Educational provision has been an important issue. The formation of a non-racial unitary system is underway. It is difficult to conduct a study on education with so many changes occurring nationally. A special problem is the demand for and expectation of equality in education and equal educational opportunities, with the reality of First and Third Worlds alongside each other and an economy unable to bridge the gap. Hence, a major theme is the upliftment of the disadvantaged. The RDP (ANC 1994: 78-79)

has this as a vision and objective. Its aim is to address economic imbalances, democratise the economy and to empower the historically oppressed. The present writer feels that improving the links between the school and the world of work will contribute to reaching these goals. More effective preparation of pupils for the world of work, imparting skills more relevant to the working world and enhancing entrepreneurial skills will increase the number of skilled people, which will improve employability and reduce unemployment.

3.2 POLICY

This investigation was initiated prior to the 27 April 1994 election, and has been conducted during the transition to a unitary education system. Education and politics cannot be separated. One must understand the previous political dispensation to comprehend its educational provision. As a result of the policy of apartheid, the population was separated and segregated into ethnic, cultural and language groups. This policy had been entrenched into the South African constitution since 1948. Segregation had permeated and dominated life to the extent that intercultural contact only took place after formal education had been completed. The education system was based on the policy of multinational (separate) development for the main cultural groups. According to the principle of cultural differentiation, each group was served by its own sub-system of education. The whites, coloureds, Indians, blacks, and blacks in the self-governing and independent states, each had their own education department (Vos & Brits 1990:52-53). This had implications for the link between school and working world. A great many pupils were not adequately

prepared for the world of work because of the unequal provision, quality and financing of their education. Large numbers of pupils, especially blacks, received inadequate education and were inadequately prepared for further training and the world of work (Sonn 1991a:5-6).

3.2.1 The De Lange Report

In 1980 the HSRC was instructed to investigate a feasible education policy for the RSA. This was in line with the need for reforms. There was much dissatisfaction over education, especially from the black community. There were constant demands for one education department, and that the education system should be brought more in line with the manpower needs of the country. There was strong economic motivation for the study because economic growth had stagnated and education had contributed to this. The report proposed principles for the provision of education (Hartshorne 1992:156-157).

3.2.1.1 Principles and recommendations

The report recommended equal opportunities and equal standards for education. Education provision was to meet the needs of the individual, society and economic development. It should take into consideration the manpower needs of the country. There should be a positive relationship between the formal, non-formal and informal aspects of education in the school, society and family. Non-formal education should be the joint responsibility of the state and the private sector (Hartshorne 1992:156-157). This indicates that there was an attempt to bridge the gap between the school and the working world. There should be horizontal mobility, with more

curriculum choices and options (Hartshorne 1992:159-160).

3.2.1.2 Management and financing of education

The report aimed to recommend management structures and processes that would make education more relevant to the needs of individuals and of society. It should be of a quality capable of serving these needs. These structures should be representative of all players in society, including the private sector (Hartshorne 1992:161-163). In striving for equality, backlogs should be addressed. There should be parity in finance provision. Separate provision should be made to eliminate backlogs (Hartshorne 1992:167).

3.2.1.3 The educational structure

According to Hartshorne (1992:167), it was recognised that formal education alone would not suffice to cope with the education backlog. Adult and non-formal education was viewed with considerable potential for future needs, to redress inequalities of the past, and to encourage a strong developmental momentum in society. There was a need to strengthen links between formal and non-formal education and to make these assessable to learners. Education should be provided in successive phases: pre-basic, basic and post-basic. Pre-basic should be directed towards school-readiness. Emphasis should be placed on this "bridging period" aimed at achieving school-readiness for as many children as possible before they begin with formal schooling. Basic education should be directed towards basic literacy, numeracy and their subsequent consolidation. Hartshorne (1992:167-168) indicates that similar to Third World literature, the report stresses basic education. It

should be the focal point of any long or short term strategy for education reform. It is the foundation for any design that may be proposed at post-basic levels. A society's level of basic education has a direct influence on its world of work because preparation and training cannot be achieved without that foundation. Post-basic education should be directed towards differentiated educational needs.

The report was concerned with educational support services within the general structure. Curriculum, guidance and counselling services, learners and special needs, educational technology and health services gained specific attention. Many of these were linked to the report's proposal for the setting up of cooperative educational service centres to serve district groups of schools (Hartshorne 1992:168-169).

3.2.1.4 Language issues

The report did not support the enforced use of mother tongue instruction because the demands of the transition to a new language medium were great. There was a need for much research into language teaching methods and mother tongue interference (Behr 1984:334-335). The link between the school and the working world was affected because language medium contributed to the high failure rate and the difficulty of training school-leavers in black schools.

According to the present writer, few recommendations were implemented because of the huge backlogs in education, political strife, and as the ERS (DNE 1991a:14) puts it, a learning culture "hampered by disturbances and disruptions in the schools". The De Lange Report had found that the

highly centralised management and strong bureaucracy were hindrances to the provision of effective and relevant education for all South Africans (Hartshorne 1992:160). It recommended more openness and flexibility in admission practices at school and tertiary level, in education planning and in its democratization. There should be more horizontal mobility throughout tertiary level institutions. Education would have to compete with other government functions like housing, health and job creation, all of which play essential supporting and complementary roles to education (Hartshorne 1992:167).

3.2.2 Recent policy initiatives

3.2.2.1 The Walters Report

The Walter's Report (Department of Education and Culture (DEC) 1990:113-130) reflects much of the same concern for economic matters. This report resulted from a request in October 1988 from the Administration: House of Assembly that the DEC should make an evaluation and promotion of Career Education (CE) in its department. Its proposals aimed to make school subjects and content more relevant to the world of work. It proposed that entrepreneurship should be encouraged and the subject, Productivity Studies, be introduced (DEC 1990:1). These proposals were not carried out, probably because they came from one department (separate development) at a time when a move to a single education system was being discussed.

3.2.2.2 The Education Renewal Strategy

Since 1986 the former Nationalist government had sought to

improve the provision of educational facilities and redress inequalities. Since 1990 it embarked on a programme of policy reform in education. The ERS and CMSA discussion documents emerged. The ERS, released in June 1990, sought short and medium term managerial solutions for some of the most pressing problems in education. Several factors gave rise to it, such as the numbers of pupils choosing maths and physical science, and the need for more emphasis on vocational and vocationally oriented education in the school curriculum (DNE 1991a:6-12). It suggested institutional changes at post-secondary level, which include creating edukons. These would offer academic bridging courses to universities and technikons (SAIRR 1993:583).

3.2.2.3 Curriculum Model for Education in South Africa

The CMSA, released in November 1991, was aimed at integrating curriculum development with the ERS investigation. It suggested greater emphasis on vocational streaming within formal schooling by introducing a new subject: Economic Education and Technology. This streaming should be introduced into secondary education after exit points at standards five and seven. Here scholastic tests would identify who should be directed to:

- generally oriented education up to matric
- vocationally oriented education for students who wished to go to universities, technikons or technical colleges, or who would undergo specific career preparation and in-service education and training (INSET), and
- vocational education, offering job-specific subjects for

career and INSET (DNE 1991b:25-34).

The ERS indicated a major move away from a system based on apartheid racial premises. The CMSA addressed the curriculum and set out the three core components of the learning process as knowledge, skills and values. Intellectual, social, communicative, numerical and technically related skills had to be developed.

3.2.2.4 The National Education Policy Investigation

NEPI was a project of the NECC which was conducted between December 1990 and August 1992. Its aim was to investigate policy options in all areas of education within a value framework derived from the ideals of the broad democratic movement. The report comprises of 13 books published in 1992. It included more than 300 direct participants and it signals a new departure for collaborative effort amongst political leaders, academics and practitioners (NECC 1993a:vii). It suggests that the aims for education should be to develop the individual's intellect, moral character and personality so that he gains independence and occupational competence, and becomes a responsible and useful citizen (NECC 1992a:36-37). It proposes that education be directed towards the demands of the economy and its manpower needs. There should be a shift from education that is chiefly university oriented to that which is vocationally oriented. The first nine years of schooling should provide general formative education, but from the junior primary phase, positive attitudes towards work should be developed. An awareness of the vocational world, different economic systems and activities, and the gaining of economic literacy and entrepreneurial skills should be

developed (NECC 1992a:41).

3.2.2.5 African National Congress policy proposals

During the latter half of 1994, the RDP (ANC 1994:1-2) was introduced as an integrated, coherent socio-economic policy framework. It seeks to mobilise all the country's people and resources toward the eradication of apartheid and to build a democratic, non-racial and non-sexist society. It was drawn up by the ANC-led alliance in consultation with other key mass organisations. The ANC proposes affirmative action to redress backlogs, that is, more attention should be given to the disadvantaged. According to Adams (1993:15), major corporations accept this. The RDP (ANC 1994:60-62) aims to develop an integrated system of education and training that will provide equal opportunities for all citizens. There should be a new human resources development strategy and a single national ministry responsible for education and training. There should be industry-based education and training boards with union and employer participation. Within education and training programmes, special attention must be given to the special interests of women and girls. They should be encouraged to pursue non-traditional subjects such as maths and science. There should be an integrated qualifications framework. Early childhood educare (ECE) must be an integral part of the education and training system. It should be expanded by an increase in private and public funding. The RDP (ANC 1994:68) proposes a substantially restructured and expanded training system, integrated with adult basic education, post-standard seven formal schooling and higher education. Education and training for skills development must be modular and outcome-based. It must recognise prior learning and experience, and must develop

transferable and portable skills. All this must be integrated within the national qualifications and accreditation system. Schooling and training programmes after standard seven should form part of an integrated system. Training for self-employment is essential and must be offered.

3.2.2.6 The Draft White Paper on Education and Training

According to the Draft White Paper on Education and Training (DWPET) (Department of Education 1994:10), the Ministry of Education recognises that education reconstruction and development involves rebuilding the system from the ground up, expanding learning opportunities for all and intense effort for many years. The goodwill and active participation of parents, business, community leaders and others is welcomed. An important programme of the RDP is the development of human resources, which involves people empowerment through appropriate education and training, so that they can effectively participate in the processes of democratic society, economic activity, cultural expression and community life. An underlying goal is that citizens should have access to lifelong learning in schools, educational institutions, homes and workplaces.

The DWPET (Department of Education 1994:11) indicates that, although the state must assume central responsibility for the provision of education and training, it should provide a facilitative framework in which learning opportunities may be provided on a wide scale. This framework of policy should provide incentives for employers to invest in the education and training of their workers. Human resource development should be on a massive scale to provide the basis for

employment growth, to raise workers' level of general education and skill, to support the introduction of more advanced technologies and to gain effective worker participation in decision making and quality improvement. A National Qualification Framework (NQF) should be established to encourage a new and flexible curricula, to upgrade learning standards, and to monitor and regulate the quality of qualifications (Department of Education 1994:11). The DWPET (Department of Education 1994:13) states that this NQF must expand the avenues for people to acquire learning and qualifications of high quality.

The DWPET (Department of Education 1994:15) points out that the Ministry of Education is committed to a process of full participation in curriculum development and trialling. All relevant role players (teachers, subject advisors, etc.) should participate. It also intends to explore an integrated and holistic approach to education support services, which in the past tended to function separately. The Ministry regards teacher education as central to the national human resource development strategy (Department of Education 1994:15-16).

The DWPET (Department of Education 1994:19) indicates that the care and development of infants and young children must be the foundation of social relations. It must be the starting point of a national human resource development strategy. Responsibility for ECE should be shared between the national and provincial Departments of Education. They should liaise with the Departments of National Health and Welfare to establish an inter-departmental working group to develop their joint interests in policy for young children.

3.3 GENERAL EDUCATION

3.3.1 Introduction

Although this study concentrates on how schooling should prepare pupils for the world of work, general education should not be excluded. In the present writer's opinion it forms an integral and essential part of this preparation. Vocationally oriented education should be well-integrated into the general education programme. The former involves the gaining of knowledge, inculcating values and attitudes, and the transmission of skills necessary in one or more broad vocational directions. It is hoped that on leaving school the learner will be ready to train for a certain career (DNE 1991b:18,52,70). Vocational education is "primarily aimed at preparation for career entry and in-service training" (DNE 1991b:24).

In an assessment of educational provision to meet manpower needs, it has been necessary to distinguish between education for whites and that for other groups. This is because of the legacy of apartheid and separate development. The former government had aimed at having segregated, differentiated and unequal education for different racial groups. This included political control over all education in the interests of Afrikanerdom (NECC 1992a:6). There were four separate education systems for Transkei, Bophuthatswana, Venda and Ciskei, six for the self-governing territories, one each for white, coloured and Indian education, and one general system which dealt with black education. The result was 19 departments under 14 different cabinets implementing regulations from 12 Education Acts. Seventeen different authorities employed teachers (NECC

1992a:7). According to Vos and Brits (1990:52), politics and education cannot be separated. The political dispensation operative in the Republic has a direct bearing on the educational provision for its citizens. The policy of segregation permeated and still dominates this society. According to NEPI (NECC 1993b:38), the poor quality of black education is one factor contributing to the worsening economic position and unemployment crisis in the Republic. Inadequate teaching of maths and science has hampered high-level expertise in engineering, the sciences and business. Poor skills in language and communication hamper training, cultural development and social mobility. The next section deals with general education in the various school stages in the RSA.

3.3.2 Pre-primary education

3.3.2.1 Introduction

According to Vos and Brits (1990:60), basic education is the minimum education that must be provided to ensure that the learner will benefit from the next phase. The present writer agrees with Heese and Badenhorst (1992:109), that pre-primary education (PPE) must be available and affordable. They state that there is a vast body of research indicating PPE contributes to conceptual development, which impacts upon further education. This means that pre-basic education creates a sound foundation for basic education, that is, school-readiness is achieved through PPE (3.2.1.3). Pearce (in South Newspaper 29.5.1993) confirms this. Compared to children who did not attend a high-quality pre-school, those who did were more likely to complete high school and half likely to require special remedial

education. The former government's view was that education begins when a child is six years old and not before.

In recent years the care and education of young children enjoys much attention. A happy child has a far better chance of becoming a happy, well-balanced adult. The increase in the number of working mothers has increased the need for places that provide quality care and education for young children. The people in these places will determine the quality of education and the care provided. It is paramount that they receive the proper training and that they possess the right attitude and disposition. The rapid pace of social change creates conditions which require new ways of thinking about child care and development (NECC 1992d:1-2).

3.3.2.2 Present needs

According to Plaatjies (1993:89-90), apartheid was responsible for the brutal and systematic denial of conditions necessary for the development of the full human potential of the majority of children in the RSA. Only 400 000 out of approximately seven million children under the age of six experience some form of ECE provision. Only 25% of African children are successful in the first grade and 50% of these end up repeating grades before they reach grade five. The dearth of ECE is a major cause of poor school performance. Govender (1994:20-21) indicates that in 1990 only two % of the estimated 5,2 million African children under the age of six were in registered pre-schools, compared to 33% of the white children of this age. Overall, 14% of children in the three-to-six-year age group were in some sort of educare. Welfare subsidies are provided only for those attending registered full-day centres. In 1990,

over six out of every ten children in educare attended centres which received no state support. The subsidy for African children was less than one-sixth of that for white children. According to SAIRR (1994:700), in 1993 there were 195,123 pupils registered at PPE schools. Only seven % of blacks below the age of six had access to some form of pre-school care, compared with 33% of whites. Provision of pre-school care was poorest in rural areas, with less than four % of children in the northern Transvaal under six years and less than two % of those on farms having access to PPE.

According to NEPI (NECC 1993b:27), some education and welfare departments and local authorities partially subsidize PPE. This support is inadequate and uneven. In Lebowa and QwaQwa nearly half the children are accommodated, but less than one % in KwaZulu and Transkei. About six % are enrolled overall in subsidized pre-primary classes. The subsidy ranges from R100 to R1500 per child. A wide variety of PPE is offered from private facilities, non-government organisations (NGO's) and voluntary community organisations. It remains totally inadequate in availability and quality. This undermines home-based learning and primary schooling except for a small minority. The present writer agrees and regards this sector of education as paramount for the future growth and stability of this country. According to Landman (in Heese & Badenhorst 1992:37-38), nearly all black children register for school, but about one in every six drop out the first year. This phenomenon may be related to the fact that 2,5% of the RSA's pre-schoolers attended infant schools. This could account for the one and a half million who later in the system do not attend school. Some deprived communities have up to 30% of pre-schoolers not at school.

3.3.2.3 Development and improvement

According to Olivier (in Verster 1989:292-293), the pre-school movement in the RSA has come a long way. Several problems are cited but it is generally accepted that this age group has an enormous capacity for gaining knowledge, and that this period is of utmost importance for the moulding of a human being. Olivier (in Verster (1989:299) indicates that Act 33, the Children's Act, required that all institutions which housed and cared for six or more children for remuneration should register with the Department of Social Welfare and Pensions. Since the 1970's every province adapted the national policy on nursery education to fit in with their own programme. This resulted in a wide variety of pre-primary school types in the RSA. Positive developments did occur. Since 1970 the Bernard Van Leer Foundation initiated Early Learning Centres in Athlone (for coloureds), in Entokenesweni, Soweto (for blacks) and in Chatsworth (for Indians). All these presented opportunity for research into infant education and the training of nursery personnel. Various universities established institutes, child guidance clinics and child development departments. The University of Cape Town initiated the Institute of Child Health. These made it possible for advanced training, guidance and research. The Rural Foundation's Community Development Association and the Western Cape Society for Early Childhood Education made valuable contributions. Many playgrounds such as the Nyanga Community Playgroups were established. In the Ciskei the education department integrated PPE with the system of education quite well and the Ciskei Association for ECE was quite active in this. There are a vast number of other associations, projects and programmes for the promotion of PPE, which space does not allow to mention (in

Verster 1989:299-301). For blacks, 12 to 15 weeks of the school year must be devoted to school-readiness programmes to improve primary education (PE). Since its institution in 1981 the drop-out rate in Sub A has decreased markedly. In support, pre-primary teachers' courses were started, school programmes for this level were constructed, and the department started subsidising PPE (Vos & Brits 1990:85).

The present writer feels much has been done in the area of preschool care but the need for facilities still lags behind, largely because of the legacy of apartheid. The black and coloured communities are the hardest hit. SAIRR (1993:595) indicates that in 1990 there were about 6,4 million children (5,3 million blacks) under six years in the RSA. NEPI (NECC 1993a:118-119) shows the same and highlights the inequality and lack of provision, and the need for day-care education programmes. Full-day, low-quality centres, only providing custodial care, bring the development of young children into risk. Because of the need for mothers to work, several day care and preschool centres have mushroomed in various areas. This has the advantage of assisting the economy and creating work in the informal sector. However, educatively, many of these centres are inadequate. Several of these centres operate from hired community or church premises, or from residential homes, where the personnel have no formal training. The present writer observes this in the southern suburbs of the Cape Flats. Esau (Interview 25.7.1993), who serves on the parent committee of one such centre, stated that several teachers had admitted feeling inadequate with no formal training. Their committee decided to sponsor teachers on INSET courses. According to Vos and Brits (1990:93), the DEC subsidised these institutions and attempts are being made to

incorporate them into the formal school structure. One such centre, where pre-school teachers are trained, is the Athlone Training Centre in Crawford (Cape Flats).

3.3.2.4 Special programmes

Scrutiny of local educare centres provides insight into the need for, the potential of, and the reason for school-readiness. According to Adams (Southern Mail 18.8.1993), an educare with a difference is the one run by the Jehovah Jireh Ministries in Grassypark (Cape Flats). It has a creche, pre-school and after-care. It is open from 7am to 6pm with a full curriculum. Fees are R20 for the creche and pre-school, and R15 for the after-care. Under fours receive a special introduction programme which includes painting and drama. Five to six year olds receive the school-readiness programme. Besides qualified staff, there are cooked meals, regular outings, educational tours, clinic visits and visits to libraries, theatres and swimming pools. After-care children receive homework, special reading and artwork. Subject advisors are available to provide guidance. There are plans for a small library and to run a crisis centre. Too difficult problems would be referred to outside agencies. Unemployment assistance, feeding schemes and educational tuition, such as literacy classes, would also be offered. Besides educare facilities, its objective is to uplift the community in all facets: social, economic, spiritual and emotional. By educating children also on social problems in the community, it is hoped that this would spread to their families.

The present writer has observed the recent trend towards multi-racial pre-schools with school-readiness programmes.

One such centre is the Bon Dia Pre-school in Elfindale, Cape southern suburbs. The demand for such centres is so great that children have to be turned away and there is a long waiting list. In view of the fact that school-readiness programmes are so necessary for the further schooling and development of children, this situation is highly undesirable. According to Wilson (1990:102-103), there exists informal and formal opportunities for care-givers to improve training and skills. Informal situations may be spontaneous or planned, while formal are those that are planned to address specific needs. There should be on-the-job training, workshops, seminars, speakers, short courses, continuing education courses and technical school courses. Biersteker (in Van Den Berg 1987:84-91) argues for home-based alternatives in ECE. They become effective when intervention is begun as early as possible, services are provided to parents and children, there are frequent home visits, parents are involved in the instruction of children, and there are fewer children per teacher. It is a cost-effective alternative. Parents are empowered through parent education. This includes parent awareness programmes, parent education programmes, home early-learning programmes, mother-child group programmes, and training for parent educators. The present writer observes that a valuable asset is the informal educational television programmes which are screened from time to time, such as "Pumpkin Patch", "Kideo", "Noddy's Toyland Adventures", and many more. Own Observation suggests that these are not utilized enough.

3.3.2.5 Conclusion

PPE is of paramount importance because of its link to basic education. School-readiness programmes enhance the chances

for success in further levels of education. Youth cannot be effectively prepared for the world of work if they do not receive this firm foundation. Hence, there is a need to have a holistic view to education, which would include this important pre-basic component. The levels and quality of PPE have much relevance for the world of work. If children are made school-ready and given this good foundation, they have a better chance of gaining the knowledge, values, attitudes and skills necessary for the world of work. Successful training is made more possible (NECC 1992d:4-5).

3.3.3 Primary education

3.3.3.1 Introduction

According to NEPI (NECC 1993b:50-51), education entitlements in South Africa are more unequal at primary level than at any other level. The revitalisation of basic schooling is the central core of education development. Basic education refers to general formative schooling prior to specialization in academic or vocational directions. It comprises of six to seven years of primary schooling and about two years of junior secondary schooling. Primary schooling needs to be upgraded. NEPI (NECC 1993b:54) indicates that there has been a huge growth in PE. In 1990, enrolment constituted about 110% of the primary school-age population. Enrolment growth in black schooling has been rapid during the 1970's and 1980's, so that there is close to universal enrolment for up to nine years of schooling. However, without systematic upgrading of township and rural primary schooling, the enrolment will continue to exceed the corresponding population by 10%. Secondary schooling will continue to be undermined by large numbers of over-aged

pupils.

The junior secondary phase shows no differentiated syllabi for most of the pupils with normal ability. Pupils are prepared for the world of work in a general way, for example, in attitudes towards work, task completion, listening and speaking. They are given the foundation for further training. A special practical vocationally oriented course provides for those whose mental abilities fall below what is regarded as normal, and for those who are in the highest level of the mentally retarded. These pupils are prepared directly for the working situation because they cannot benefit from further academic work. According to Vos and Brits (1990:90), school attendance for whites was compulsory till the age of seven. Education was compulsory for other population groups up to the age of 16, but this was not fully implemented, especially in the case of the blacks and the coloureds. According to the DWPET (Department of Education 1994:53), from 1995 compulsory education will be for all and this will be phased in starting with all six year olds in 1995 (Department of Education 1994:56). In linking the school with the working world, it is important that all children receive a sound basic and PE, which will reduce the levels of unschooled citizens.

3.3.3.2 Youth preparedness

Provision was made in white schools to prepare children for life with the subject, Youth Preparedness. This was not offered in black schools. Griessel (1990:177-179) equates it with inculcating a life view, which involves any activities deemed suitable for the furtherance of the particular life-view of the community the school serves. Another

purpose is to prepare pupils for dangers in society, like permissiveness (Griessel 1990:194). It aims to prepare the child to become a "viable person", who would seek a career. He would first have to know himself. Youth preparedness involves getting to know oneself. According to Grod (Interview 28.12.93), its activities include all kinds of crafts such as knitting and crochet. It also includes driving lessons at some schools. There is no uniform curriculum. Each school utilizes the period as it deems fit for preparing pupils for life. In practice there is no real career guidance at primary schools. The subject Guidance is offered, but it is generally formative in nature and content. Emphasis is on cultivating realistic attitudes, ideals and expectations.

3.3.3.3 Problems and difficulties

The requirements for coloured PE is similar to that for whites, with the same subjects, syllabi, outlook and differentiation. However, there are major problems in the implementation of compulsory school attendance. Van Rensburg (1975:89-91) cited in the 1970's that obstacles included shortages of suitably qualified teachers, classroom accommodation and funds. It has been difficult to provide the level of diversification needed to meet the needs of individual pupils. The present writer observes that many of these obstacles still exist, together with general poverty and other socio-economic problems. The Commonwealth Secretariat (1991:25) maintains that despite the expansion in schooling, at least a quarter of all children are still outside primary school and half do not reach secondary school. The former government undertook to pay for stationery and textbooks but supply is erratic and of poor

quality (Commonwealth Secretariat 1991:27). Vos and Brits (1990:93-94) cite the problem of pupil numbers and the shortage of teachers and buildings. The emergency measure of double sessions had to be used, where two groups would be taught using the same school facilities and teachers. In Indian education the syllabi were based on those applied in other departments.

In senior primary a wide curriculum ensures that every child is catered for. The emergency measure of double sessions is used in certain areas because of shortages in facilities (Vos & Brits 1990:96). Continual efforts to keep abreast of modern developments has resulted in much progress in many subjects. Regular courses were given to teachers to improve methods, techniques and knowledge. For black pupils there are various types of junior and senior primary schools. There are also farm schools. PE failure rates and drop-out figures are serious, with about 40% during the first phase. Remedial teaching was offered in necessary subjects to counter the high failure rate and drop-out trend (Vos & Brits 1990:85-86).

In terms of PE, Hartshorne (1992:23-24) questions the "numbers game" the previous government applied to education. It would quote enrolment statistics, growth figures and increases in expenditure, without seriously assessing the quality and relevance of what was learned, its value to the children, the communities from which they had come and the development value it had for the Republic as a whole. There has been a failure to provide the resources to establish and maintain PE, a failure to address the fundamental issues and even to ask the right questions. Assumptions are made about its fundamental purpose. Hartshorne (1992:23) queries

whether PE has value and relevance of its own or is it preparation for what follows?

3.3.3.4 Backlogs in rural education

Because of the RSA's racially segregated nature, farm schools occupy the lowest level. They have the highest pupil drop-out rates, the lowest qualified teachers and are the least provided for in state finances. Most lack the most elementary facilities like electricity, telephones, running water, toilets, sports fields and teacher aids. The distances children have to walk everyday to impoverished schools are great (De Graaf, Louw & Van der Merwe 1990:1). SAIRR (1993:603) indicates that 95 farm schools had been closed during 1991 because of political and economic pressures. This left over 10,000 pupils stranded. According to SAIRR (1993:601), former government policy has resulted in an uneven spatial distribution of farm schools. The result is limited access to education in rural areas. The erection and location of farm schools depended on the decision of local (white) farmers. If these comply with departmental specifications, they would receive about 80% of the capital costs from the Department of Education and Training (DET). Farmers are able to determine who attends the schools and the level of education to be provided. Educational resources are generally poorer than at other DET schools. This is undesirable. The poor provision and standard of education in farm schools is a hindrance to the effective preparation of large numbers of pupils for the working world. This amounts to a huge loss in human potential as mentioned in 1.1. The RDP (ANC 1994:84-85) also cites this lack. NECC (1993b:28) indicates the need and states that farm schools are the most disadvantaged

component of the education system. This is confirmed by the DWPET (Department of Education 1994:49).

3.3.3.5 Special programmes

According to Walker (in Sunday Times 27.6.1993), there is a great need to introduce productivity studies and entrepreneurial skills as early as primary school. A highly successful initiative, which the present writer feels is the right direction for schooling in the RSA, is Hilton-Green's schoolboy enterprise programme introduced at Kingswood College Junior School in Grahamstown. Hilton-Green's motivation was that, since opportunities in the formal job market will diminish, pupils should be taught how to go about earning a living. The increase in job-seekers will force people to create their own opportunities in small business. Teaching the three R's only is not equipping pupils for the future. They must be introduced to courses nurturing entrepreneurial skills. The programme involves all the pupils in basic parliamentary procedure, so that they become familiar with skills such as conducting meetings and taking minutes. Standard five pupils would divide into groups, choose a business, calculate costs, write this in theory, register the company, appoint a managing director, and so on. There is flexibility for rules to be changed as pupils develop. Prizes are awarded in several categories, such as most successful company in each field, businessman or woman of the year, entrepreneur of the year and the best in advertising and marketing. Hilton-Green (in Sunday Times 27.6.1993) believes that this level is most suitable for this type of learning. This is because the academic pressures are less, it is fun, the pupils are keen, and they are smarter than what adults think they are. Conventional

wisdom, that if one works hard at school one gains a good job, no longer applies. Hilton-Green touches on relevancy when he states, "It is better to learn to make a living than to be taught about, say, wheat fields in North America - they can read all about that later" (in Sunday Times 27.6.1993). Hilton-Green (Interview 10.11.1994) said that several high schools have copied his idea. These include Kingswood College in Grahamstown, Richards High in Richards Bay, and Wykham Collegiate in Pietermaritzburg. Not much of the same has been done at primary level, but Wykham Primary has started a programme during 1994.

3.3.3.6 Conclusion

PE performs an important function in the preparation of pupils for the working world. It imparts the basic skills necessary for further training to take place. PE generally performs this function for certain groups. However, there are huge backlogs, especially for blacks (3.3.2.2; 3.3.3.4). Without redress it can be said that PE comes short of preparing our youth for the working world. The present writer notes that hardly any scope for career guidance is given in PE. A possible reason for this is that PE is traditionally regarded as basic and general, with an emphasis on the three R's. The guidance offered is generally formative in nature and content but attention should be given to CE. Youth Preparedness, as presently practised, is inadequate to forge the necessary link between school and the world of work (3.3.3.2). Proposals for subjects like productivity and entrepreneurship (Walters Report) point in the right direction for improvement (3.2.2.1).

3.3.4 Secondary education

3.3.4.1 Introduction

Most secondary schools are of the academic type and are valued highly by all groups. The prestige associated with academic subjects is great. A problem arises when this education must be related to the world of work. Many secondary schools provide training that has little relevance to what most students will do after leaving school. Blacks avoid occupations associated with hard manual labour and gravitate to those with prestige. The emphasis on academic training has lowered the value of practical and technical training. These attitudes are the same for whites. There are historical, socio-economic and cultural reasons for the emphasis on academic education (Dreijmanis 1988:14-15). Nasson and Samuel (1990:104-105) describe the diploma disease in South Africa and call for serious reconsideration of the processes whereby educational knowledge is presently legitimated. The abnormality is that the school system becomes a sorting system with the main focus on examinations and diplomas. The following are suggested for consideration:

- early recruitment into productive environments
- aptitude instead of achievement tests for selection
- work-study principles for in-career selection, and
- pre-career selection and training (Nasson & Samuel 1990:104-105).

According to NEPI (NECC 1993b:77), there is tension between the provision of general education for all and the differentiation of the curriculum to cater for differing interests and abilities. Tension also exists between the quality of secondary schooling and the extent to which access is afforded to all. There is the further problem that differentiation may deepen social inequalities rather than reduce them. Teachers can strongly influence and shape the performance and choices of children. According to NEPI (NECC 1993b:78), there is the need to have a differentiated curriculum that would create opportunities for youth to pursue academic, technical, technological, commercial and other broadly vocational directions. It would be necessary for post-school opportunities to offer much greater diversity and flexibility.

3.3.4.2 Curricula

The primary and secondary school pattern for whites, coloureds and Indians is seven plus five years. Provision is made for eight different fields of study: the natural sciences, human sciences, art (fine arts, music, drama, ballet, etc.), technology, commercial, agriculture, home economics and general. Differentiation extends to the examination system. Some subjects are offered only on higher grade and others only on standard grade. Some subjects are offered on both levels according to ability and future plans (Dreijmanis 1988:14). The junior secondary phase is broadly based and generally formative, with a restricted subject choice. All normal pupils would receive fixed syllabi of each subject. The senior phase involves the preparation for the senior certificate. There are compulsory non-examination subjects such as Scripture and Physical Education. Final

subject selections and gradings must be made at the end of standard seven. In 1973 a practical course was introduced, but this was abolished in 1982 because pupils could not move out of it because all subjects were taken at the practical level (Vos & Brits 1990:91).

The Walters Report (DEC 1990:82; 113-116) concluded that the then curriculum did not adequately prepare pupils for the working world. It was found to be too academic and examination directed with less regard for general work skills, work-specific skills and business concepts. It proposed changes to the curriculum to include promotion of entrepreneurial skills and productivity studies. Subjects like Handwork, Needlework, Basic Technology and Technical Orientation should be re-curriculated in their entirety and brought closer to the English "Craft, Design and Technology" (CDT) approach (DEC 1990:121-123). During the 1980's, Britain improved its National Curriculum by having its CDT transformed from traditional woodwork and metalwork to design and technology using new plastic materials. This mirrored some of the changes occurring in local industry (Ainley 1990:22). The ERS (DNE 1991a:16) cites the same problems with the curriculum. Several proposals were made to make it more relevant, to rationalize it and to bring it more into line with the technological age (DNE 1991a:47-48). The CMSA (DNE 1991b:21,26,35,38-40) gives more broad and specific subject details and directions necessary to redress the unbalanced curriculum. Broad vocational field subjects include engineering studies, enterprise management, arts education and agricultural science. Specific vocational field subjects include civil technology, electrotechnology, typing and office administration, animal production, plant production and clothing technology (DNE 1991b:38).

NEPI (NECC 1992a:24-25) asserts that teachers have worked in highly bureaucratic and authoritarian education departments, which excluded them from curriculum decision making. Teachers do not play much part in creating curriculums. Their input is further restricted by overloaded syllabi and prescribed texts. This in turn dampens classroom activities. The situation is worst for black teachers who face large classes with poor resources, and who work in highly politicized environments.

3.3.4.3 Career education

Not all schools teach CE. In the experience of the present writer, who has taught guidance for several years, enough teacher guidelines are given, but the subject is taught unequally at many schools. This has a serious effect on the ability of the school to adequately prepare pupils for the world of work. According to NEPI (NECC 1992f:20), vocational guidance and life-skills have emerged as major aspects in the last decade in all departments. The content of the curricula reflect the dual vocational and general guidance approach. The main focus areas are vocational, educational, social, personal and family guidance. NEPI (NECC 1992f:21) states that the major deficiency is that guidance is not seen as part of mainstream education. Vocational guidance has remained a marginalized service in all the education departments. This has been perpetuated by the lack of resources allocated to this area, and by the low priority accorded it by administrators, teachers and therefore by the pupils. This resulted in the demoralization of guidance teachers and the virtual non-existence of group guidance activities in most schools. NEPI (NECC 1992f:23-24) cites the further problem of fragmented guidance services as a

result of apartheid. While services were linked to psychological or auxiliary services, in practice there is very little coordination. This resulted from a fragmented conceptualization of support services and the lack of clarity in overall focus or goals. In the process, little or no role is played in curriculum development or the development of wider services by teachers, parents, pupils and community groups. There had been a hierarchical approach to policy planning, decision making procedures and curriculum development. Administrators were the key players. This hierarchical approach to governance of support services was perpetuated in the schools. Regarding group guidance programmes, the existing syllabi are irrelevant. This arises from the lack of sensitivity to local needs and issues. There is the lack of integration of guidance into the overall school curriculum. Inequalities exist with regard to personnel. The departments for blacks have hardly any specialized personnel to cope with referrals or supervision. There is concern over the competency of many who have to provide services.

Van Den Aardweg and Van Den Aardweg (1988:35) define CE as "the process involved in teaching students the skills necessary to make a living and the equipping of students for the labour market". Critics maintain that over-emphasizing CE would cause individual and social values to be neglected. However, this emphasis is in response to the need of parents and employers for children to be equipped for the labour market. They expect schools to undertake this, because not all learners undergo further training after leaving school. Many enter the labour market immediately and they should have learnt basic skills in order to become successful employees. Parents and employers stress that work programmes

have many gains, such as a sense of one's own value, chances of obtaining a certain social status, possibilities for self-realisation, creative occupation, and the realising of goals and ideals (Van Den Aardweg & Van Den Aardweg 1988:35).

The CE programme is a purposeful effort for all. It should commence not later than grade one, stress education as a preparation for work, attempt to assist learners to make meaningful choices, know his limitations, potential and capabilities, and understand the requirements of the various careers that interest him, so as to ascertain whether he can meet such requirements. This is coupled with career guidance and counselling, the purpose of which is to orientate every learner to make a responsible, realistic choice of career. This entails meaningful choice of subjects and courses, systematic guidance towards self-knowledge, and an awareness of vocational reality and all its demands. There are two components to this education in school: general school guidance and career guidance (Van Den Aardweg & Van Den Aardweg 1988:105). Hayes and Hopson (1977:7) stress the "employability" aspect of CE. It is more than just career choice. Some school-leavers cannot find or keep a job because of serious personal inadequacies. They may show hostility to those who would teach or supervise them. CE may therefore include remedial education. Lindhard and Nondumisa (1990:19) promote the concept of Lifeskills, that is, coping skills. Schools should teach more skills and less knowledge, because knowledge gets outdated but skills never do. Lindhard and Nondumisa (1990:7) indicate that school-leavers would not find access to traditional jobs or career paths of previous generations. New economies are based on relationships and networks, and require skills instead of

mere qualifications.

February (Interview 30.3.1992), a standard 10 pupil at Sea Point High (near Cape Town), gave the impression that an effective and successful programme is used there. Along with a graph of career choices (a "guess graph") and an assessment of the pupils' strengths and weaknesses, they are taken out to real work sites ("business visits"), to see for themselves. Pupils note, amongst other things, pay, work hours and work conditions. According to Chuenyane (1990:26-27), there is hardly any vocational guidance at black schools. Where it is offered, this is through the curriculum as part of Social Studies for Forms One and Two. Being non-examinable, it tended to be ignored by teachers and pupils. It usually placed emphasis on cultivating realistic attitudes, ideals, expectations and the importance of manual work. School counsellors trained mostly through short courses. Their work entailed a "superficial testing service" used for statistical research rather than for guidance. Guidance posts were invariably filled by teachers inadequately trained to handle guidance and counselling. From the 1970's, outside organisations undertook career guidance and counselling for black pupils on a large scale. These include the Career Research Information Centre, the Education Information Centre and the Soweto Careers Centre. The Walters Report (DEC 1990:14-22) addresses CE and proposes that economic and socio-economic perspectives be included in it. As part of its call to develop entrepreneurship and productivity education, it proposes that syllabi be revised in consultation with employers so that pupils will be better prepared for the labour market (DEC 1990:115). This attests to the fact that little input is made by the private sector in terms of syllabi.

3.3.4.4 Business education

Business education involves teaching concepts like buying and selling, income and expenditure, and trade and profit in terms of public needs (markets). Certain schools offer Business Economics but it does not include lifeskills such as preparing for self-employment and entrepreneurship. Klein (1991:12) stresses that preparation for self-employment should be presented to the youth because it is another career option. Not everyone will be able to step out of school into a training field or find employment. Most ordinary careers have specific training paths, but the entrepreneur has numerous ways of starting.

According to Mcqueen (Interview 2.11.1993), Business Economics and Accountancy are still too theoretical with a need for increased relevance to the working world. The present writer observes the same, especially in the light of productivity studies and entrepreneurship mentioned in paragraph 3.3.4.2. Smollan (1986:143-144) describes the lack of small business development and the need for it. Hence, the present writer suggests that a good start should be from the school.

3.3.4.5 Special programmes

a. Informal Business Training Trust

In the light of paragraph 3.3.4.4, it is appropriate to study some business training initiatives. Internationally, there are many success stories in the realm of small business. Peacock (Weekend Argus 2/3.10.1993) reports that two-thirds of new jobs in the USA were created by small

businesses since the 1970's. South Korea spends about 10% of its budget on promoting small enterprise. Yet in the RSA it was discouraged and stifled for the past 10 years. For this reason, the Informal Business Training Trust (IBTT) organised the Be-Your-Own-Boss pilot programme for youth in danger of being marginalised. Because of the weak link between school and the working world, outside organisations contribute towards preparing youth for the working world. IBTT is funded by the Joint Education Trust (private companies and overseas firms) (Weekend Argus 2/3.10.1993). Over 10,000 entrepreneurs have been trained by the trust. It costs R684 to put a person through the programme. The student has access to its facilities and counselling for three years. In Johannesburg, 43 students between 15 and 16 years old have done the course. It will be repeated in Cape Town. A vast need exists for this programme to draw out hidden talents and to ensure this gains expression. Weekend Argus (2/3.10.1993) reports that over seven million youths (dropouts) are in danger of being marginalised because of the lack of opportunities. They may have attempted matric, failed and felt it was the end, or have struggled with fees. Potential is blocked by the lack of opportunities. There are success stories where students proceed at their own pace. They attend courses when they can, since the informal sector is irregular. For those who have access to bank loans, a start-up fund works like a loan scheme on a small scale. A vital component is business counselling, which helps students to put theoretical knowledge into practice. Focus is on giving options, instilling independence awareness, self-reliance and initiative. Students do not write any formal examinations. It is aimed at those who have left the formal school system. There is a need to network all other organizations doing the same work.

b. Lugobe School Project (LSP)

The Constructive Business Movement (CBM)(Constructive Business Movement 1993:99) promotes the concept of networking. In the LSP they have networked various companies around a particular school in Umbumbulu in Natal. They have identified various needs and have cooperated their efforts around electrification, provision of school equipment and teacher upgrading, sinking a borehole and providing water supplies, and a hot-shower shop to generate school funds. CBM (1993:85-86) stresses that the private sector has a critical role to play in education. It needs to have focused and targeted programmes, and needs to move away from "cheque book charity" to greater involvement. There should be more community control in charge and a move towards more self-sufficiency in schools and communities.

3.3.4.6 Conclusions

In secondary education the curriculum needs to be made more relevant to the world of work. More vocational orientation needs to be introduced. The ERS, CMSA, Walters Report and NEPI (3.2.2) point in the right direction in this regard. Not only the subjects but also the content, presentation and emphasis should have greater focus on economic matters and acquisition of skills. The severe neglect of CE needs urgent attention (3.3.4.3). The proposals for CE in the Walters Report should be extended from the Cape Education Department to include the entire country. Greater emphasis should be given to the development of entrepreneurship and productivity (3.2.2.1). There should be a move away from rote learning to what Manning (1988:70) calls "risk taking". From the few isolated programmes mentioned above, there are

lessons for the private sector and the school. There are ideas for linking and networking, and for developing productivity awareness and entrepreneurial skills in school pupils (3.3.4.5). Sonn (1991b:9) states that more people need to be trained to become entrepreneurs and producers.

3.3.5 Post-school and tertiary education

3.3.5.1 Introduction

According to NEPI (NECC 1992c:19-20), the post-secondary education (PSE) planning process is conducted by the DNE and the Universities and Technikons Advisory Council (AUT). The big problem with this planning, is that few of the DNE's plans have really been implemented successfully. There are a number of factors for this. One is that despite its view on university autonomy, it has been the agent of the former government's ideology, regarding issues of race and ethnicity as more important than the proper planning of the PSE system. The result of these failures is that the RSA does not have an effective PSE system.

According to Sunter (1994:93), the value of technikons and technical colleges in South Africa have been totally underrated. At the heart of this problem is the myth that only university graduates are successes later in life. Much of the success of Germany and Japan after the Second World War came from the fact that they emphasized manufacturing. To do this they had to concentrate on training in technical skills.

NEPI (NECC 1992c:78-79) proposes that the PSE system in the RSA should be under a single education ministry. Any changes

to individual PSE sectors must be made in the context of a national education policy and plan. The PSE system must emphasize the importance of sound basic education. It must be responsive to national manpower needs. It must permit a high degree of student mobility between different levels of tertiary education institutions. In changing the PSE system, care should be taken not to exacerbate the present inequalities. The historically black universities should be given major support. In student enrolment and staff appointments, affirmative action must become a major feature. There should be an expansion of academic support programmes to deal with increases in the intake of educationally disadvantaged students.

According to NEPI (NECC 1993a:205), PSE in the Republic consists of three main sectors: universities, technikons and teacher-training colleges. A smaller role is played by three other sectors: colleges of nursing, agricultural colleges and technical colleges.

3.3.5.2 Technical colleges

According to NEPI (NECC 1992g:17), a number of serious problems exist in technical colleges in the RSA. Most white technical colleges were developed with substantial state and employer organization support. They were well integrated into the urban industrial map of the Republic. Their graduates generally gained jobs in neighbouring industries. Generally, employers were highly critical of the training these colleges offered. Curricula were regarded hopelessly out of date. Training in the black colleges was even worse. They were built in underdeveloped rural areas far from industrial enterprises which could offer on-the-job

training. These colleges hardly served the training needs of the rural communities where they were located. Machinery and syllabi were outdated, instructors poorly trained and there was no active support from local industry. Only a small minority of students were sponsored by companies. NEPI (NECC 1992g:17) states that blacks from these colleges are unable to secure training-related employment because of the poor quality of their training and the prevalence of racist employment practices.

According to Govender (1994:28-29) technical colleges cater for students from Standard eight to post-matric level and are more vocationally orientated than technikons and universities. Gender and racial imbalances are starker at these colleges than at other levels. Men outnumber women in Engineering, Science, Maths and Industrial Arts. Women outnumber men in Business and Home Economics. However, with regard to the requirements of commerce and industry, Loynes (1993:122-123) stresses that technical colleges are ideally placed to find solutions. They already offer courses which are essentially vocational. These should be extended and constantly revised to meet the changing needs of the business world.

According to Beukes (in Klein 1991:14-15), technical institutes were also established in terms of Act 41 of 1967. They make it possible for youth to improve their qualifications after leaving school and taking up employment. Courses in commercial and technical subjects are offered on a part-time basis for recognised certificates. These institutes are spread around the country, are mostly in the rural areas, are under the control and management of their own councils and are subsidised by the state. There

are also correspondence colleges and training facilities by state departments. The Technical College of South Africa (TECHNISA), under the DNE, offers post-school pre-tertiary education by correspondence. State departments offer training schemes for their employers. The South African Transport Services, the South African Police and the Department of Posts and Telecommunications have their own colleges. There are colleges for foresters and for training in agriculture, mining and nursing. Technical colleges form the largest group of the four types of education institutions, the others being universities, technikons and teacher training colleges. There are approximately 120 throughout South Africa. Beukes (in Klein 1991:15-16) indicates that their fundamental role is to offer post-school career training to school-leavers on both the pre-tertiary and tertiary levels of the education system. The education and training students receive is academic, formative, specialised and career-orientated. Training programmes provide for theoretical and practical preparation for future careers. Part of the academic year is spent at the college and the other in a real life work situation. Industry and commerce collaborate in these cooperative training programmes. Their role is to indenture students for approved competency-based modular training programmes. Their formal education courses lead to either a national or a National N-Diploma. Full-time or part-time training is offered in the following fields: technical/engineering, hair care, commercial, educare, community services and the fine arts. Non-formal education programmes provide opportunities for people to improve their qualifications, to better their positions at work, to develop particular hand-skills, or to update career knowledge (in Klein 1991:14-16).

3.3.5.3 Technikons

According to NEPI (NECC 1992c:18-19), the 12 technikons in the RSA are like universities, that is, public institutions established by Acts of Parliament. Their governance structures are similar in that they are required by law to establish a council. Each has to appoint an academic board which functions similar to a university senate. The Certification Council for Technikons sets academic norms and ensures that academic standards are maintained. Since 1989 technikons had to set internal examinations, but the Certification Council issues all certificates and diplomas. (NECC 1992c:18-19). The Technikon RSA offers different courses in technology ranging from architectural draughtsmanship to building inspection. Other general courses range from cost accounting to safety management (Klein 1991:39-40).

According to Dreijmanis (1988:19-20; 38), Act 40 of 1967 was to create an institution intermediate between a technikon and a university: the College for Advanced Technical Education (CATE). In terms of this act the following colleges became CATE's: Cape, Natal, Pretoria, Witwatersrand, Port Elizabeth and Vaal Technical Colleges. The Advanced Technical Education Amendment Act 1983 gave technikons the status similar to universities. It also redefined the kind of education they offered. Together with advanced technical education, they could offer post-school education on a part-time basis. NEPI (NECC 1992g:15) states that there are low levels of enrolment at technikons and technical colleges. There are also alarming imbalances in enrolments between universities, technikons and technical colleges. The ratio of student enrolments between

universities and technikons is 7:2, whereas the norm in most countries is 1:1. NEPI (NECC 1993a:137) states that African enrolment in technical colleges is less than 20% of the total. Vocational education for black school-leavers has been mostly of a poor quality and as a result unpopular. The weakness of maths and science teaching in black schools has undermined effective technical education.

3.3.5.4 Universities

According to Govender (1994:27), in 1994 there were 466,000 students at post-secondary institutions, of which 66% were at universities, 22% at technikons and 12% at teacher training colleges. Out of every 1000 of the white population, 51 were enrolled at these institutions, compared to 35 per 1000 Indian, 13 coloured and nine African. By 1993, black students made up only 41% of the total university enrolment. NEPI (NECC 1993a:216) also points out the imbalance in student enrolments at PSE institutions. Those registered for university studies are too high in proportion to the other two sectors. Student numbers distributed across the different areas of specialization are inappropriate in relation to the Republic's human resources development needs. Enrolments in science and engineering are low compared to those in more industrialized countries.

According to the DWPET (Department of Education 1994:19), the higher education system is dealing with the effects of rapid enrolment growth and decline in the real value of state subsidy. Students are under financial pressure, which is transferred to their institutions. The actions and counter-actions resulting from this have led to instability at institutions and study programmes being interrupted.

Higher education struggles with the consequences of poor secondary education and the distortion of curriculum choices, especially the under-development of language skills, the sciences and maths. The ERS (DNE 1991a:53) admits that the difference in study requirements between the last school year and the first year of university has become a serious difficulty in achieving equal academic standards at all universities. The ERS (DNE 1991a:55-56) indicates that the demand for university places has caused a fresh look at admission requirements. The minimum admission requirement for degree studies is a matriculation certificate or a certificate of exemption.

3.3.6 Curricula

It is evident from the ERS, CMSA, Walters Report and NEPI (in 3.2.2) that the curriculum needs to be made relevant to the working world. In paragraphs 3.3.4.2 and 3.3.4.3, it was explained what kind of subjects need to be introduced. Also mentioned was the new approach and emphasis needed. Mention can be made here of the multi-cultural nature of the population in the RSA. Cronje (1990:7) reports that this can present serious problems. Hence, there is a need for a curriculum that is relevant to South African conditions, research to show what direction management training should take, and greater stress on skills to promote better interpersonal and intercultural relations. Howe and Le Roux (1992:146-147) state that in order to transform the South African economy, the first step is to change the curriculum and make it more relevant to the current situation in the Republic, and for the manpower needs. NEPI (NECC 1993a:107) presents some policy options for the curriculum. An option is to have highly centralized curriculum decision making,

where a standard curriculum would be developed centrally, with no regional or local variation. A national system of assessment and certification would further ensure standardization. Equity targets for the curriculum would be set and appraised centrally. Resources would be allocated centrally. Commissioning, approval, provision and distribution of textbooks would take place centrally. Another option is to have highly decentralized curriculum decision making. The curriculum would be developed at regional and local level, and school-based curriculum development would be encouraged. There would be no standardized curriculum. Regional assessment and certification would encourage curriculum diversity. Equity targets would be set and appraised regionally. A strong decentralized curriculum would promote regional and local participation in curriculum decision making, accommodate diversity, and allow high levels of teacher involvement in curriculum decision making and curriculum development (NECC 1993a:107-108). All options should aim to achieve greater openness and participation in curriculum decision making. Structures and procedures for involving major interest groups in society could be established. Policies could be developed which systematically increase teachers participation in curriculum decision making and development.

Measures for ensuring quality and accountability in the curriculum also need to be systematically developed, as do procedures for the evaluation and reviewal of the curriculum (NECC 1993a:109-110). There is the need to maintain commonality and diversity. A common curriculum, which addresses issues of diversity appropriate to education, is a major policy challenge (NECC 1993a:112).

3.3.7 Teacher performance and training

According to NEPI (NECC 1992e:13-14) all the Republic's 21 universities, except Medunsa, offer teacher education courses. There are 102 teacher education colleges chiefly focusing on PE. They currently offer 14 different certificates and diplomas. These colleges present education planners with a dilemma. On the one hand, they are spread throughout the country bringing tertiary education closer to far-flung communities. This makes them able to understand and respond to local needs. On the other hand, they are far from centres of debate on national, academic and professional matters. Academic development is difficult and many are small and inefficient, making them less cost-effective.

NEPI (NECC 1992e:14-15) relates the argument that colleges of education do not produce teachers of outstanding quality. This is because they do not attract students who are academically talented and committed to teaching. The low entrance requirements and their heavy subsidization make them attractive to students seeking tertiary education but who do not qualify for, or can afford, technikon or university entrance.

NEPI (NECC 1992e:15) states that the 12 technikons also offer teacher education. However, the three levels, university, technikon and college, are isolated from each other structurally. The transfer of credits or status from one level to another is very difficult. The duplication and wastage in human and material resources hinders mobility from one element of the system to others. No coordinated INSET teacher education programme exists in the RSA.

Cronje (1990:6) reports that training continues from education with the emphasis on moulding expertise and skill. Education provides the substrate on which knowledge and values are based. Training which develops skills is a further elaboration of the structure. With the stress on redistribution of wealth, teaching and education are central to improving the ability of the poor to produce. This would improve their incomes and hence satisfy their needs. Quality in education is dependent upon the quality of the teacher, that is, his qualifications, experience, classroom competence, professional confidence and commitment. In all of these the black teacher is fighting for survival. The majority of black and coloured teachers need upgrading and hence INSET. The private sector is funding some innovative approaches to INSET (Hartshorne 1986:17). Examples of this are found in the IBTT and LSP programmes (3.3.4.5).

With regard to productivity studies and development of entrepreneurship (3.2.2.1; 3.3.3.5), it is obvious that teachers must be aware of and have had training in these to become facilitators. These have not only been absent from the curriculum of the school but also from teacher training programmes. Gluckman (1992:51-53) stresses the need for a new approach to learning in the classroom and expounds concepts like pupil empowerment, initiative, creativity and risk-taking. There is a vast disempowered workforce in the RSA. Individuals must be helped to discover their personal power and be taught to use it in the same way as they are taught technical skills. Failing this, there is the risk of crippling the entire economy. Manning (1988:70, 175-177), promotes the concept of "risk-taking" in the classroom, with a "Let them go, let them grow" approach. This does not suggest freedom from discipline, but suggests moving away

from the teacher centred instruction approach towards increased creativity. With regard to CE and employability (3.3.4.3), not only a need exists for upgrading CE teacher training, but CE remedial education needs to be catered for. Hayes and Hopson (1977:228-229) stress the need for forecasting manpower needs and the adjusting of CE to changing situations. This has implications for teacher training. Student teachers should be closely informed and kept abreast of personpower data. They should be made aware of a possible slump in the need for skills because of an economic slump (Howe & Le Roux 1992:127-128). Much depends upon the teacher, as he has to convey the right knowledge and teach relevant skills. However, teachers have had little experience outside the classroom. Ways and means should be found to address this situation at the teacher training colleges and for INSET programmes to be launched. In view of all these points, there is a need to involve parents in CE.

Raubenheimer (1993:69-70) indicates that the key fault with INSET programmes was that teachers were taken out of their real life situations and taught things not relevant to their contexts. The models were prescriptive, assuming that developers knew what teachers needed. Teachers had no role in identifying their needs nor in the design of the programmes. Hence, workshops conducted in a prescriptive manner, need reconsideration.

3.3.8 Conclusions

Given the need for a sound general education for the entire school population and knowing that this has a profound influence on the ability to receive skill training, it is noted that there are vast imbalances in the caring for this

task in the education system of the RSA. Amongst other factors, this had been caused by fragmentation as a result of apartheid, inequality in provision and a laissez-faire approach to nursery care. The high number of failures and school dropouts would not be so pronounced if adequate care was given to school-readiness programmes. The Children's Act permits parents financial contribution to site maintenance and financial support from local authorities. Where there is no support, a subsidy can be applied for (Vos & Brits 1990:85). However, the backlog from apartheid and general poverty makes this arrangement inadequate.

It is the present writer's perception that a number of factors count against the effectiveness of education departments in the RSA. One is the hierarchical approach to management (3.3.4.2). Another is the criteria for appointment to promotion posts. The bottom line for any consideration for promotion is not academic qualifications, but the promotability status of the teacher.

Problems and failures in the provision of general education affect the ability of the school to adequately prepare youth for the world of work. The next section deals with vocational and technical education and how it interacts with general education.

3.4 TECHNICAL, VOCATIONAL, AND VOCATIONALLY ORIENTED EDUCATION

3.4.1 Introduction

The aim of vocational education is the teaching, preparation and orientation of learners toward the needs of the

vocational world, so that they can be productive in the work situation. It has traditionally been the area of preparation for careers with the development of vocational competence and economic self-sufficiency in learners. It provides schooling in the application of the operations, rules, techniques and procedures required in various occupation groups and guidance in the gaining of the required attitudes necessary for the work situation (DNE 1991b:71). Vocationally oriented education differs from generally oriented education in that the emphasis is primarily on the exposition of knowledge, the inculcation of values and attitudes, and the transmission of skills used within one or more broad vocational directions. In this way the learner will be ready for training with a view to career entry on leaving school (DNE 1991b:18). It prepares learners for education at university, technikon or technical college (advanced phase), or for career entry and INSET (DNE 1991b:24,53).

According to Rautenbach (in McGregor & McGregor 1992:358), traditionally technical education regarded the acquiring of manual skills and work habits for skilled manual jobs as essential. Presently most strenuous manual work is done by machines. Their complex processes are controlled and maintained by skilled workers. This makes contemporary technical and vocational education different. It is now necessary to develop a understanding for complex technological processes and a capacity to adapt to technological change. Most technologies are science-based. Understanding the underlying science and maths is a must to master them and to keep up with new developments. Also important are planning and fault-finding skills. Therefore, the function of technical and vocational education would be

to develop a combination of skills in the career for which the learner is preparing himself.

3.4.2 Problems, perceptions and attitudes

Rautenbach (in McGregor & McGregor 1992:358) states that vocational and technical education in the RSA is that which takes place at a technical college, a technikon or in an apprenticeship situation. It usually commences at the age of 16 after a general preparatory education. The aim is preparation for a job or career in a specific area. Up to very recently it was regarded as fitting for the less intelligent. Attitudes had changed from the traditional viewpoint where it was important to acquire manual skills and work habits for skilled manual work.

According to NEPI (NECC 1993b:79) government-funded technical colleges, education colleges, nursing colleges, and colleges of agriculture and forestry enrol about a quarter of all matric passes, and about five % of school-leavers each year. Outside of colleges, technikons and universities, there is little further vocational education. Available learning opportunities are far below potential demand. Either secondary schools must take on a wide range of career-oriented programmes, or post-secondary colleges must be expanded to meet vocational education needs. NEPI (NECC 1993b:80) states that if colleges continue to be rigidly controlled and weakly funded, workers and employers would have to seek other sources of support for adult education and training. However, a flexible and growing college sector could lead the way in shaping vocational education and training courses and introducing new programmes.

According to Bot (1993:16) and Charney (1993:27-28), there are mismatches between manpower produced by the system. There are enough graduates but a great need to train more at the diploma and artisan levels. The product mix is also mismatched. Too many students enter the humanities or the service sector. Too few are prepared in primary and secondary production, and marketing and management careers. It is the same at school level. Thousands of pupils gain Standard 10 but cannot find jobs and are also not in a position to create jobs. The problem is caused partly by the economy. According Heese and Badenhorst (1992:52), the Walters Report had stated that far too few pupils are channelled into vocational and pre-vocational education. Teaching skills are questioned. Many school-leavers can hardly read and write properly to write out a report. Many are not numerate enough to quantify information and solve problems by numerical analysis. Ideologically, education is also questioned. There is the desire for Christian National Education, for Liberal Education, and for People's Education from various groups (Heese & Badenhorst 1992:52-53).

3.4.3 Relevance of education to the employment market

The relevance of education to the employment market has come a long way. As far back as the 1970's experts were calling for the same thing. Wright (1977:2-3) had said that in order to deal with unemployment or underemployment, and to generate development from the black community themselves, the training and education of black technicians and entrepreneurs is of paramount importance. This education must be relevant and practical to solve present problems. Judging from the problems of education and the recommendations of the Walters Report, ERS, CMSA, NEPI, ANC

and the DWPET (3.2.2), the school has not managed to respond effectively to these calls since 1977. Another factor is the status of the matriculation exemption certificate. It leads to exaggerated emphasis on examination results, sometimes pointless and harmful competition, and schoolwork revolving around written examination and quantitative evaluation. This accounts for the emphasis on academic and neglect of vocational education (Dreijmanis 1988:16).

SAIRR (1990:852) stresses that traditional attitudes to technical and vocational education perpetuate the major imbalance in education. A country that does not achieve relevant education, risks allowing its greatest resource, people, to become its greatest liability instead of asset. Ngubentombi (in SAIRR 1990:853) refers to this obsession with academic and theoretical education and the white collar jobs it prepares people for. Generally, technical education is rated below academic, despised and regarded suitable for academically weak pupils. The De Lange Report described the problem in 1982 as a well-entrenched resistance to technical education in the RSA. There has even been insufficient funding for technical colleges from both the private sector and the government. Schlemmer (1992:26-28) feels technical colleges have not gained the legitimacy and respectability to attract promising black pupils. It is "a tragic commentary on the state of educational consciousness" (Schlemmer 1992:28), with the lack of bursary support, that this badge of legitimacy cannot be achieved. There is a need for efficiency of expenditure, a culture of learning, and political legitimacy of the system.

In general, a measure of technical and vocational education is offered at school level. Enrolment figures of pupils

taking practical, technical and commercial subjects are documented in SAIRR (1990:854-855). Technical schools have not solved the problem, because aspects like teacher training, curriculum, syllabi, content, methods and approaches were not in line with the aim. As pointed out above, the lack in PPE, PE and CE, productivity studies and entrepreneurship, and the state of the economy are factors.

3.4.4 Expectations of the private sector

3.4.4.1 The need for links between schooling and business

Cawker and Whiteford (1993:70) maintain that an education system should be responsive to the needs of the economy. The Republic is currently faced with the situation where the majority of the population is poorly educated and many people lack basic skills. Business in general expects the school to produce skilled manpower. Sonn (1994:2) states that industry and commerce have complained that the products of the South African education system do not comply with their requirements. Vast amounts of money and time had to be spent on bringing the knowledge and skills of the newly qualified in line with job needs. CBM (1993:99) confirms this and states that business is well aware of the problems in education and the need for links between business and the school. They promote the concept of networking. Countless reports in the media show there is a direct connection between economic well-being and the role of education as provider of highly skilled manpower. Argus (23.3.95) reported on the strong call for industry and academia to work as a team. Inefficiency is costly and society is demanding more of the good things they know science and technology can produce. Allen and Cook (1993:10) report that

at the top there is a shortage of skilled people and at the bottom a vast reservoir of unskilled or lowly skilled people far in excess of the jobs available. Landman (1993:253) indicates that the private sector needs people who have the ability to develop new skills, to gain new knowledge and concepts and to adapt to technological change fearlessly and enthusiastically. The aim should be technological literacy rather than technological skills.

3.4.4.2 The need for business literacy

There is increasing sophistication and complexity in the production of goods and the provision of services. Engineers, physicians and scientists will become out of date in many aspects within five years if they do not keep up their continuing education. Commenting on school-leavers in general, Hartnady (in Weekend Argus 29/30.5.1993), director of the business training company Stratagem, said staff, particularly blacks and those lacking adequate literacy skills, needed to be business literate. This includes knowing the principles of profit and loss, investment and return, demand and supply, the role each person had in a company and the contribution this made to the economy. Previously companies restricted business skills training to senior management. There should be wider training, which would help in improving productivity, labour relations, the reduction of wastage and ultimately, company performance. The Stratagem programme related to personal life as well as the work place and was aimed at merging the goals of the individual with that of the company.

3.4.4.3 The need for balance between skills and manpower needs

According to Cawker and Whiteford (1993:14), South Africa has had an oversupply of lower level human resources, but a relative shortage of high and middle level human resources. Howe and Le Roux (1992:150) maintain that research shows that business sees a need for an equitable balance between schooling and skills and manpower needs for the RSA. There is the imbalance between academic and vocational and technical education skills. The skills and knowledge needed by business and commerce are mismatched by the skills and knowledge emerging from the schooling system. Howe and Le Roux (1992:127-128) stress the need for a fine link between schooling and the working world.

According to Stals (1993:4-5), productivity is critical for economic development. The reasons given for the Republic's poor performance are: the low level of training and education, a shortage of competent managers, the lax attitude of workers towards their responsibilities, and the increase in the extent of labour unrest over the past decade.

General work skills, work attitudes, personal characteristics, thought skills, social skills, language skills, bilingualism and numeric skills are regarded as important by employers. This emerged from the Walters Report (DEC 1990:79-81) with research through a questionnaire to employers. Basic knowledge of business concepts is more important to those in the private sector than those in the public sector. School-leavers do not, in general, live up to employers' expectations. According to employers in general,

their most important shortcoming is in the field of work attitudes and thought skills. Those in the public sector indicate serious shortcomings in language ability. Although employers differ in the requirements they set, they feel that those regarding personal characteristics, language skills, bilingualism and numeric skills are met to a certain extent. Productivity awareness, planning and problem-solving, listening and speaking, writing, reading and basic calculation skills are regarded by employers as the most important skills which school-leavers ought to possess. As far as productivity awareness is concerned, it is felt they "fall extremely short" (DEC 1990:81). School-leavers in general have enough measuring and drawing skills, but these are regarded as less important. This was the same for manipulative skills, basic computer literacy, technological literacy and entrepreneurship (DEC 1990:81). With regard to the question of who should take responsibility for teaching school-leavers to provide for the requirements employers set, most regard general work and work-specific skills and business concepts as their primary responsibility. The development of personal characteristics, thought, social, language, numeric skills and bilingualism are seen as the task of the school. The public sector places greater responsibility on the school for teaching business concepts and general work skills than the private sector. The development of positive work attitudes is seen as an important function of both the school and the employer (DEC 1990:80-81).

3.4.4.4 Entrepreneurship and productivity education

The Walters Report (in 3.2.2.1) places much emphasis on the development of entrepreneurship and productivity education.

The importance of these to business and the country is seen in the numerous articles in magazines such as Human Resource Management and Financial Mail. Gluckman (1992:51-53) gives an overview of the problem. South Africa has a vast disempowered workforce and needs entrepreneurship. This involves creativity and the ability to drive the future. The Republic needs entrepreneurial leaders to create an entrepreneurial climate. Organizations must create a reward system that encourages initiative and risk-taking at all levels. This means empowerment. Individuals must be helped to discover their personal power and be taught to use it similar to the way they are taught technical skills. The present writer feels this is the rationale for the Walters Report proposals regarding productivity and entrepreneurship. Cawker and Whiteford (1993:118) assert that, whether people enter small businesses for profit or survival, specific training is needed to enable them to run a business. Even at an elementary level they need skills like marketing and sales, financial management, stock control and record keeping.

Nyati (1993:85) suggests that the problem with South African education is that it does not teach entrepreneurship. University and college students are trained to become employees and not employers. Thompson (1994:10) stresses the need to create a culture of enterprise in South Africa, that reflects the values of individual initiative, hard work and honesty. South Africa desperately needs people motivated by a spirit of enterprise rather than entitlement. People should set out to improve themselves rather than demand what they think is owed to them.

3.4.4.5 Advantages of business and school partnerships

According to Pretorius (1993:12-13), there are a number of advantages from partnerships between business/industry and education. There are advantages for teachers, policymakers, business and industry. There is no neat and universal explanation of what employers want from school and university education. One general expectation is qualities of mind. The education system must deliver youth enquiring and challenging, able to synthesize disparate material, and make practical and not only academic conclusions (Pretorius 1993:13). There should be numeracy and computing skills. This does not mean advanced maths, but that people could handle basic data with ease and imagination, and be able to draw sensible conclusions therefrom. People should gain interpersonal skills. Workers should be able to interact well with each other and in the group. They should have an ambitiousness to succeed, and an awareness that their work has tremendous social value for creating wealth and providing services. What employers should not look for are automatons to move onto the next assembly line. They need flexibility, independence and the ability to use knowledge to solve problems. The abilities to read, write and communicate, and to be part of a team are essential. Students should have made informed career choices and must understand how the working world functions and the challenges it offers. Business people want to see the gap between the world of work and the school sharply diminished. They want the opportunity to influence the content, tempo and balance of the curriculum. Preparation for the world of work should be an organisational aspect of the secondary school curriculum (Pretorius 1993:14-15).

3.4.5 Conclusions

There is a need to introduce economic and socio-economic matters into the curriculum of the school to improve the link between the school and the working world. Employers expect certain skills, values and attitudes related to the real work situation. Business and education should get together to bring about partnerships and networking. This process would help towards creating a school curriculum more relevant to the working world. More emphasis could be placed on skill development so that school-leavers are better prepared for tertiary institutions and/or commerce.

3.5 EDUCATION AND TRAINING

3.5.1 Introduction

For many years effective education and training had been hampered by several factors. Structurally, they had been handled separately by the two departments of education and manpower. Each produced its own training and development initiatives with inadequate coordination. It was difficult to forge closer links because of the highly centralized and bureaucratic nature of state departments. Other factors were the fragmented system of ethnic and racial education departments, the inequality in financial provision, facilities and standards, resistance to repressive political ideology and political unrest (3.3.1; 3.3.8).

3.5.2 Nodal structures

The education system is united by nodal points (in 2.3.2.3), which collaborate from time to time. Nodal structures

include accrediting and examining bodies. In all societies, certificates act as incentives and legitimation for school learning. In the RSA there was another dimension to this. Ten examining bodies under the control of the Joint Matriculation Board (JMB) reflected the racial and regional divisions. The original function of the JMB was to control access to universities and to issue the standard 10 school-leaving certificate. Because of its focus on university entrance, it had an undue impact on the curriculum. In the process it promoted academic and devalued vocational and technical subjects. There are a small number of technical secondary schools offering the "technical" matric. Subjects include general and motor mechanics, technical drawing and woodwork. This matric provided entry to university in engineering orientated courses. The JMB attempted to achieve equivalencies between the various examining boards. There has been much dissatisfaction from various quarters regarding certificates from some departments. Universities saw the level of education of some students as below standard. Pupils perceived a difference in value of their certificates from that of others. Employers rejected some certificates as not a true assessment of abilities (NECC 1992a:90). Hartshorne (1992:106) indicated that with the JMB system, the issue was how to maintain internal standards at acceptable levels.

Two new certification bodies have since been set up to ensure corresponding certificates do represent the same standard of examination and education. These are the South African Certification Council (SAFCERT), for schools and technical colleges, and the Certification Council for Technikon Education (SERTEC), for technikons (NECC 1992a:91).

3.5.3 The role of the private sector

Corporate social responsibility is displayed in various forms and degrees in South Africa. In 1991 the African Explosives and Chemicals Industries (AECI) reported it had devoted one % of its previous year's profit before tax to its social investment programmes for the twelfth year running. That year R4,6 million was invested in 129 projects. About half went to promote scientific and technical education, to upgrade teachers' skills and qualifications and to promote job-creation programmes. R80 million was contributed over five years by Barlow Rand in 1991 to the Private Sector Initiative, an education trust. Barlow Rand's Education Trust gave the biggest donation of R3 million to the Alexander Technical College. Barlow Rand reported that 60% of its social investment allocations went to education (SAIRR 1993:117).

According to Etheredge (in Smollan 1986:138-139), a sad feature of manpower development in the RSA is that much has been written on it but too little action taken. Recession means a cut in training budgets, and with small firms no training at all. The private sector does much less than what is required to meet future needs. Bigger corporations are heavily involved in training, but many businesses are doing little or no training. The training of supervisors and managers is important. The country is being under-managed with a ratio of managers to workers of 52:1. The problem is that blacks have been kept out of better education and training. Although there has been an increase in black matriculants, the black matriculant is educationally way behind his white counterpart (in Smollan 1986:140-141).

According to NEPI (NECC 1993a:92), the corporate sector had some influence on adult education policy options through bodies like the Urban Foundation, the Education Foundation, and the Private Sector Education Council (PRISEC). However, private sector initiatives in education governance have been very limited. It involves itself in peripheral aspects with the support of the NGO movement. However, the only relevant governance involvement came through PRISEC in the ERS investigation. Regarding education, the business sector is not a well-organized interest group. No clear governance proposals have emerged from it. It did not have input into examinations and hardly influenced curricula and syllabi. The kind of investment mentioned above cannot alone solve the problem. Programmes such as Be-your-own-boss, conducted by IBTT, and LSP (in 3.3.4.5), set the example of how the private sector can contribute to education, but much more would have to be done and in terms of networking.

3.5.4 The role of non-profit organizations

There are so many needs in the RSA that Non-Profit Organizations (NPO's) are actively involved in various concerns like housing, urbanisation and education. The Independent Development Trust (IDT), the South African Housing Trust and the Urban Foundation do valuable work in assisting to diminish the backlog in housing and urbanisation (SAIRR 1993:223-225). This is a very necessary area, because the lack of adequate housing and poor housing conditions detrimentally affect education standards and results.

According to Wilmot (in Smollan 1986:146), a wide variety of NPO's exist in the Republic. Each represents an interest

group or activity. There are basically two different groups, those with broader business interests and those representing a specific interest groups. NPO's representing commerce and industry are very close to business and are very aware of the needs of their members. This enables them to make accurate analysis of needs and priorities. Members who serve on their committees are practical businessmen who make meaningful contributions to discussions. Business is very concerned with the emphasis on academic qualifications and the lack of stress on technical skills. The government should reduce the subsidy available to tertiary institutions for "soft sciences" and increase it for the "hard sciences". This would increase the output of technically orientated students and reduce those qualifying in the "soft sciences". This would increase and encourage the number of students who would be of greater value to business and industry. They would also lead more satisfactory, useful and fulfilled lives. It is regrettable that so many black students at tertiary educational institutions study such subjects like political science and sociology. It is extremely difficult for business to absorb such students. The result is many black graduates walk the streets unable to be employed. This also breeds radicalism (in Smollan 1986:146).

3.5.4.1 Management and on-the-job training

Another priority identified is the training of managers. This has reached serious proportions. About 1,6 of the active workforce are managers and administrators. If only the whites were considered, this figure would increase to 6,6. This indicates that the whites cannot continue to supply the skills for the country's future development. There are still some legislative hindrances to black

advancement into management positions. NPO's sometimes act as pressure groups to approach the government with regard to legal impediments to black advancement. Since they represent a vast number of businesses, they have a powerful voice which can force the authorities to pay attention (in Smollan 1986:147). Nyati (1993:85) indicates that institutional prejudice to black business remains a reality in the RSA.

Many whites at shop-floor and at management levels resist black advancement in the work-place. White attitudes have to be changed to create a climate in which blacks can progress to levels determined by their own ability. There are also economic limitations to the training of personnel. The accelerated advancement of blacks would be expensive in terms of capital outlay and loss of productivity in the short term. NPO's representing private enterprise are often asked by government to make representations on issues affecting business. This places them in special positions of direct access to all parties (in Smollan 1986:148). Those representing special interest groups have each of them representing a very specialized body of knowledge and skill. These can be applied by way of research, information and guidance for the benefit of blacks in the economy. The importance of collective skills, expert opinion and pooling of resources, is seen in the Continuing Education Programme, launched jointly by the Manpower and Management Foundation, the Urban Foundation and the Institute of Personnel Management. Blacks are given the opportunity of attending classes preparing them for higher standards than those achieved at school. The various resources of the sponsors complement each other in furthering the aims of the project (in Smollan 1986:148).

3.5.4.2 School programmes and teacher training

Havenga (in Smollan 1986:146) points out that black education is indirectly benefiting through the efforts of the Urban Foundation, whose objective is to improve the quality of life through development in housing, education and training, and access to the private enterprise economic system. It has conducted research and negotiations aimed at improving the educational system, has participated in the HSRC Investigation into the Provision of Education, and has conducted research into selected areas of education, notably non-formal education. It finances and sometimes manages educational projects and programmes. In most cases these are pilot in nature, designed to test innovative approaches to educational needs and to define appropriate roles for the private sector in education. In non-formal education, it has focussed in areas like pre-school, technical and adult education. Involvement includes activities like the financing and constructing of pre-school and creche facilities, financial assistance to existing pre-school bodies, financial assistance for the training of pre-school teachers, and provision of advisory services to these institutions. It was always aware of the strong community demand for pre-school education. Research has confirmed that high drop-out rates, especially in the standard 2 level, is partially caused by a lack of school-readiness in the child. This problem can be overcome by pre-school experience. This is the motivation for the Urban Foundation's involvement in pre-school projects (in Smollan 1986:149).

The particular interest of the private sector in technical expertise and training has caused the Urban Foundation to focus in this area. In view of the increased need for

technically trained blacks, the foundation's projects included emphasis on the financing and construction of technical training facilities, financial assistance to technical training institutions, and planning for new technical training methods, especially in the training of artisans. It concentrated on adult education, especially directed at teachers, and INSET, which is a major national need. Some general adult education programmes have been undertaken. The foundation is also involved in enterprise development among blacks. It is a major responsibility of organisations representing private enterprise to educate and involve blacks in this system. International evidence shows that the formal small business sector and the informal sector create real employment opportunities and financial support for the poor (in Smollan 1986:149).

Big contributions are made by organisations like Career Information Centre (CIC), Operation Upgrade, Adopt-a-School Programme, Rotanda, Programme for Technological and Engineering Careers (PROTEC), and Teacher Opportunity Programmes (TOPS). They usually operate after school hours. CIC attempts to expand youth awareness of the current situation in the RSA. Operation Upgrade aims to eradicate illiteracy. TOPS offers in-service programmes to upgrade under-qualified black and coloured teachers. PROTEC provides career guidance, assists in arranging bursaries and applications to tertiary institutions, visits to factories, building sites, offices and training centres, and helps place pupils in full-time jobs (in Smollan 1986:150-152). Gluckman (1992:51) sees the need to create an entrepreneurial climate, which should be started by organisations creating rewards systems that encourage initiative and risk-taking at all levels.

3.5.5 Conclusions

Because of the failure of state institutions to meet the manpower needs of the RSA, many NGO's and NPO's have taken the initiative to alleviate shortcomings. Much is done outside of the formal school to enhance education and training. Socio-economic problems and educational shortcomings are so acute that NGO's and NPO's help perform an important function. There is an urgent need for closer cooperation between the different nodal structures. There is need for networking of the assistance from the private sector, NGO's and NPO's.

3.5.6 Constraints to development

3.5.6.1 Political and social instability

Socio-political and economic conditions have both a direct and indirect effect on the level and quality of education a great many children receive in the RSA. Political violence and its effects are documented in SAIRR (1993:449-466). During 1992 and 1993 there had been increased violence between political parties like the ANC and the Inkatha Freedom Party, and between hostel residents and householders, hostel residents and shack dwellers, and in the transport sector (railway commuters and taxis).

SAIRR (1993:197-198) also describes the hindering effects of general poverty on the quality of life and hence education. Poverty does not only concern low income, but includes dirty drinking water, high infant mortality rates and poor housing. Housing, a big problem and issue in the RSA, is the source of much instability. Problems in education,

especially amongst blacks and coloureds, are exacerbated by the lack of sufficient housing and poor housing conditions. These factors detrimentally affect the atmosphere for learning in the home and in the school.

3.5.6.2 Migrant labour

Migrant labour has an impact upon educational standard, output, training and ultimately, economic development. It is important to understand its historical background. Although this system is associated with the policy of apartheid, it has firmly been established as part of the country's traditional way of life since the previous century. This pattern was well set-up in agriculture, the Natal sugar industry, the 1866 Hopetown diamonds and the Witwatersrand gold from 1886 (Wilson 1972:1-3). There was the phenomena of thousands of single men in the urban areas without adequate accommodation. This resulted in the hostal system (Wilson 1972:30-33). Several evils emerge from migrant labour. These include hindrances to skills training, rural development, female earning power, do-it-yourself investment and proper management. There were social evils like unemployment, illegitimacy, bigamy, prostitution, homosexuality, drunkenness and violence. Migrant labour brings the law into disrepute, breaks down parental authority, degrades men, breeds corruption, spreads venereal disease, tuberculosis and malnutrition, and reduces the pressure for reform (Adam & Moodley 1993:142-144; Wilson 1972:68-71). Crush, Jeeves and Yudelman (1991:3) confirm the destructive impact of migrancy on black rural society. Wilson (1972:186-187) correctly predicted that it would eventually cause violent upheaval and black political opposition. He describes it as a rejection of man's humanity. It is cruel and has a definet

effect on white South Africans (Wilson 1972:174-191). The present writer feels the extensive reliance on foreign migrants has had a negative effect on education provision, training and economic development. It has hindered the need to develop secondary industries, higher skills and training, that would result in improved education standards and provision. The private sector had become complacent and did not see the need to become involved in education in an increased way.

3.5.6.3 Industrial relations

According to the SAIRR (1993:65-66), the RSA has been badly effected by strikes. Statistics show that during the first half of 1992 there were a total of 169 strikes involving about 43,000 workers and a loss of 339,000 mandays. This entailed an estimated loss of R18,5 million in wages. The main reasons for strikes were wage disputes. This was the case during the second half of 1992. A month-long strike of 80,000 metal workers cost about R880 million in lost production and R110 million in lost wages.

The Basic Conditions of Employment Act of 1983 and the Unemployment Insurance Act of 1966 were ammended in 1992. This brought farmworkers under the ambit of the acts for the first time. The Labour Relations Act and the Wage Act would be extended to farmworkers and domestic workers (SAIRR 1993:66). The present writer mentions this because in the past not enough protection existed for many categories of workers. Apartheid, discrimination and poor wages, amongst other things, negatively impacted on large sections of the population. Poor educational results and problems in education could never be effectively addressed with

underlying problems like poverty, poor housing, unjust wages, poor working conditions and inadequate worker protection. The problem has been especially acute in rural education. Farmworkers' children have been denied education on a large scale. The implications for this study is that the preparation of pupils for the world of work could be disrupted by all these factors. Economic, political and social relationships in society are closely interrelated. Wide-ranging discriminatory legislation and practice have hindered blacks from meaningful participation in the economic system. These include the Group Areas Act, the Apprenticeship Act and influx control. Influx control, job reservation, and education and state expenditure are just some of the ways blacks have been denied access to economic resources (in Smollan 1986:81-82). All these factors have caused poor and unstable labour relations. Trade union activity and the number of and nature of strikes, mentioned above, are testimony to this.

3.5.7 Conclusions

There had been many developments and initiatives in education and training in the RSA. The major player, the state, undertook formal education and the financing, creating and maintaining of structures. However, provision, quality and relevance of this education was in question, mostly because of apartheid and the fragmentation it caused. This includes long lines of accountability, dissipating challenges, badly coordinated bureaucracy, top-heavy status quo and multiple sites of policy formulation.

The private sector is not organized and committed enough to make the necessary contribution to education and training.

NGO's and NPO's play a major role and set the example and pace for the state and the private sector. However, much more can be achieved if their efforts can be better coordinated (networking). The state, private sector, NPO's and NGO's should work much closer, because education and training do not operate in isolation. Each should have inputs into examinations, curricula and syllabi through bodies set up for this purpose. Poverty, poor housing and migrant labour cited in paragraph 3.5.6 necessitate affirmative action in social matters so that initiatives in education and training can succeed. This is the central theme of the RDP (ANC 1994:7-8) and the DWPET (Department of Education 1994:10-11).

3.6 INNOVATIONS AND PAST MEASURES

3.6.1 Introduction

There have been measures to improve the education system and the quality of education provision in the RSA (in 3.2.2). There were the various commissions of investigation into education appointed by the previous government. There were far-reaching recommendations from the De Lange Report (3.2.1). There have been also developments in various areas of education provision, yet there remain some areas hardly changed, especially in rural education, and particularly farm schools. Some innovations have been cited above, such as those in paragraph 3.3.3.5.

This research study is conducted during very momentous times. Great changes have taken place. An atmosphere exists in society where there is generally an expectancy, and in some areas, a demand for change. There is a wide spectrum of

attitudes and approaches toward improvements in education. It is generally accepted that educational output is one of the most important driving forces of economic development. However, this myth that education expansion leads to economic growth and employment generation is belied by increasing unemployment and underemployment in the Third World and the RSA. Instead, education expansion "seems to lead to growing unemployment amongst the educated" (Dostal 1990:10). It is well-known about the growing shortage of technically trained people against the growing surplus of work seekers with human sciences degrees. Advancing socio-economic development is "not to educate more people, but to give more of the right education" (Dostal 1990:10-11). The "right" education needs careful consideration. The present writer agrees that presently we only know the education received now is inadequate.

Much effort and skill is employed in addressing the education crisis in the RSA. Sonn (1991c:11) pointed out that there is today "a proliferation of foundations in South Africa to address the educational crisis". The ERS, CMSA, NEPI and others (3.2.2) reflect this concern to modernize the education system and to bring it into line with subject needs like maths, science, and vocational and technical subjects. The present writer feels that the world of work should form an integral part of all discussions, planning and execution.

3.6.2 Research findings

The NEPI Education Planning, Systems and Structure Report (1993) deals with the links between education system change, democratization and economic development. Human resources

development is central to economic growth and improving income distribution in the RSA. Education and training are important for skills and productivity. They facilitate social and occupational mobility of individuals and families. This promotes industrial growth, urbanization and rural development. Major political players like the ANC have made policy proposals that show their commitment to revitalizing education and training. The ANC proposes affirmative action to redress backlogs, that is, more attention should be given to the disadvantaged. Education should be free for all children. The following are key features of a well-managed education and training system (NECC 1993a:133-134):

- Good-quality general schooling available to all
- Good-quality secondary and higher education
- Internal efficiency within schooling with effective departmental administration
- Coordinated and supported adult education
- Effective and flexible vocational education and training.

Financial matters have dominated the effectiveness of the South African education system for decades. The former government had adopted the principle of equal education and equal standards in education in 1983 (HSRC 1983:3). It was generally accepted that this would entail substantial amounts of money. However, the economic capacity and other commitments such as defense and community needs have been an excuse for huge backlogs and persistent problems that plague

the education system and prevent it carrying out its mandate (HSRC 1983:312). The present writer feels that amounts spent on education should not be such a strong factor in the efficiency and effectiveness of the system. For instance, huge sums of money can be spent injudicially. Wastage, corruption and inefficiency could erode what resources do exist and ensure failure. According to Sonn (1991c:1-2), the major problems in education have been: racial fragmentation of educational management, discrimination in financial provision and discriminatory educational policy.

3.6.3 Implementation of policy changes

As was experienced in the past, the implementation of research recommendations is difficult. The political dispensation and economic realities have an impact on implementation of new proposals in education. This was the case with the White Paper on Education Provision and the De Lange Report. The ERS and the CMSA call for many of the same changes. NEPI (NECC 1993a:92) states that the ERS echoed the De Lange Report in the call for non-formal education to complement and link with formal education and job-related education. It also echoed the report regarding proposals for education governance and administration (NECC 1993a:156). Since these have been suggested as far back as 1981 and are repeated in the 1990's, it indicates that not much of the recommendations have been successfully implemented. The former government's defense for this situation was that housing and health, which complement education, must not be compromised.

Apartheid fragmentation impacted on the participation and cooperation of all parties. Even recently with the state's

alternative policy initiatives such as the ERS and the CMSA, most groups outside of government refused to participate in the investigations (NECC 1993a:156). Hence, it is crucial to consider the kind of process to be employed in resolving the present crisis in education. This process is underway, but these questions need to be addressed. Where is education at present? Where do we want it to go and how do we get there? What must be done now and what positive factors can be built on now? (Hartshorne 1992:331).

3.6.4 The need for national policy on education and training

NEPI (NECC 1992b:20) states that "the malaise in national policy making and planning infects most South African Post Secondary Education institutions". Few are capable of satisfactory internal planning and policy making in line with international standards. This situation resulted from a lack of demands for a central governing authority. It is also claimed that there does not exist an "accountability ethos" in the university system. Education and training should be handled together. There is a need for a national policy instead of the present fragmented one. Democracy and education go together. Hartshorne (1992:95) states it is critical that people see the "democratic state as the political order most likely to provide the environment for freedom, equality, justice and the open, non-racial society...". Schooling should be compatible with this and be laying the foundation for this kind of society. This should include both the structures, management and administration, and within the school, classroom and the curriculum.

3.6.5 Conclusions

The previous undemocratic and repressive political dispensation, social inequalities and incorrect economic policies have been stumbling blocks to much innovation and development. Much research has been done making many correct proposals, but social attitudes and practices, apartheid structures and bureaucracy had made it virtually impossible to implement. The majority of the products of the education system continue to be ill-prepared for life and the working world, because there is general failure in provision and quality, especially for blacks and coloureds. It fails because of various factors. National education policy is fragmented and not coordinated enough. There has been inadequate awareness of needs, relevance and consultation.

A new political dispensation and democratic structures have been achieved. Now there should be training for new management styles. Consultation and participation from all levels of society would ensure this. High levels of red tape and bureaucracy should be done away with. Business and industry should have a say and involvement in education and schooling so that the gap between schooling and the working world can be narrowed.

3.7 SUMMARY

There should be effective education and training to ensure that there are schooled and skilled workers for the personpower needs of the country. For proper vocational, technical and higher education to be achieved, it is necessary that proper foundations be layed in pre-basic, basic and secondary education. This implies that general

formal education be widely and effectively provided and supported. At present PPE and PE are sadly lacking for many communities (3.3.2 and 3.3.3). This badly affects education and training at further levels.

Provision and quality are not the only drawbacks. Education should become more relevant to the working world, so that school-leavers have marketable skills (3.3.4.6). Education and commerce should have close ties to minimize mismatches (3.3.5.1). Close cooperation will ensure fine knowledge and awareness of South Africa's personpower needs (3.4.4.1). School guidance services should be able to inform pupils correctly on career trends, market changes and lifeskills, so that the phenomena of unemployed graduates can be avoided (3.3.4.3). The education and economic systems should work together to undo public perceptions on academic university subjects and education, and white collar jobs. Otherwise, present imbalances will persist (3.4.4.3).

School curricula should include business education and lifeskills (3.3.4.2). People should become more aware of economic matters and changes. In times of growth stimulation and trade, there are demands for schooled skilled workers. There can also be a glut of skilled workers competing for a limited number of jobs in a recession, without the necessary growth, production and trade. This makes it imperative for close links between education and the working world. Needs and trends should be more predictable. For all of this to work, there should be political, social and economic stability (3.5.6.1). Hence, the democratic dispensation is essential. Then there should be a well-coordinated, well-implemented national education policy (in 3.6.4).

Also imperative is the need for entrepreneurship and productivity (3.2.2.1). Many more people, when unemployed, should be able to become self-employed. The promotion of entrepreneurship and productivity in the school can develop the right attitudes and skills (3.4.4.4). This should form an integral part of CE (3.3.4.3) and teachers, especially guidance teachers, should be equipped to carry over these aspects to pupils (3.3.7).

The next chapter will deal with some international trends and what is done in Germany and Nigeria with regard to the linkage between the school and the world of work.

CHAPTER 4

THE LINKAGE BETWEEN SCHOOL AND WORK IN SELECTED COUNTRIES

4.1 INTRODUCTION

In Chapter 3 the South African education system was examined as to how it has carried out its mandate with regard to the preparation of learners for the world of work in order to fulfil the needs of the community. A number of factors have contributed to the failure of the South African education system to prepare learners adequately for the world of work. These were political instability, fragmentation (apartheid), inequality in provision, a laissez-faire approach to nursery care and PPE, and others. It was identified that a systems problem has hindered previous efforts to implement sound and scientifically devised recommendations. A great need exists for entrepreneurship and productivity in school curricula and programmes.

This chapter will examine the efforts and practices in some other countries with regard to how learners are prepared for the world of work, in order to meet societal needs. This is to make comparisons with the RSA in order to draw conclusions and make recommendations for this country in chapter 5. General themes will be looked at such as PPE, PE, curriculum, business involvement and teacher training. There is first a study of modern trends in the linkage between school and the working world (4.2). A closer study of this linkage is made in Germany (4.3) and Nigeria (4.4). The former is chosen because of its particular success with regard to the link between school and the world of work. It

is necessary to compare what is being done in a highly successful, industrialized country in order to gain from experience and to aspire to higher levels. Nigeria is chosen because it is a developing country and has similar problems to South Africa. There are certain parallels with South Africa and lessons can be learned from how Nigeria deals with her problems.

4.2 MODERN TRENDS WITH REGARD TO LINKS BETWEEN SCHOOL AND WORK

4.2.1 Introduction

Many countries employ various plans and methods to ensure that their schools prepare pupils for the world of work in a rapidly changing world. They constantly have to deal with the relevance of their education to the personpower needs of their countries.

4.2.2 Foundation education

4.2.2.1 Introduction

Since the importance of PPE emerged in chapter 3 in establishing the foundation for basic education which affects the school to work linkage (3.3.2.5), a few trends will be discussed.

4.2.2.2 The need for early learning

More and more educational leaders recognize the special ways in which kindergarten is beneficial for all children. It is being steadily accepted that ECE influences later schooling.

In the USA kindergartens have grown phenomenally. Over 96% of all five year olds attend. Observations show that what happens to children long before entering school markedly influences their capacity to develop in school (Rudolph & Cohen 1984:5-10).

4.2.2.3 The need for policy and advocacy

Wieser (1991:351-352) views child care as a political issue and advocacy as the way to influence the political process. Presently it seems only three sets of people are involved in child care: parents, educators and children. This should be expanded by drawing in employers, government at all levels, private and public agencies, foundations, public education, religious groups and organized labour. Financial and social support can be gained from such partnerships. This would ensure the stable funding of good quality day-care programmes affordable to families. Social support is needed to promote awareness of child care issues, to help parents develop child care consumer skills, to identify problems and to promote public policy changes to improve child care. Quality child care is not only an issue for parents but for society, because it is a sound investment.

4.2.2.4 Partnerships with business

According to Hildebrand (1993:217-218), there are several motivations for supporting child care. With regard to recruitment, employers are finding that benefit packages help attract and retain well-qualified employees. Companies are finding that concern for employees' families is good for their public image. Absenteeism and tardiness have been reduced by child care assistance programmes. It also

improves productivity and turnover. Wieser (1991:302) mentions several emerging pioneer partnerships with public education, such as the children's centers, Brookline Early Education Project, and the Centre for Early Development and Education. Current exemplary programmes include the Minnesota Early Childhood and Family Education Programme and the Missouri Parents as Teachers Programme (Wieser 1991:305). Wieser (1991:308-310) maintains that child care cannot be sold as something good for children, or good for children and families. Perhaps it can be sold as something to help people get off welfare and become productive workers. For many poor parents, especially single mothers, the lack of safe, affordable child care options together with existing policies create a climate where it is better not to work. This situation keeps those on public assistance firmly within the welfare system. The business sector is beginning to realise the potential importance of child care and related services. America West Airlines (Arizona) and Bank of America (California) are some examples of employer involvement. The benefits of implementing the programme far outweigh any costs incurred to get it running. The present writer feels that foundation education is essential in the school to work link, which is now discussed at the further level of adolescence.

4.2.3 Upgrading vocational education

4.2.3.1 Introduction

Regarding the consistently high dropout problem of high school pupils in the USA, Weber (1988:36) contends that this can be reduced through improved educational programming. Vocational education also has a role to play in this matter.

Findings indicate that those who will become dropouts do not do much in the way of preplanning their high school programmes. They also do not participate in the mainstream of vocational education.

4.2.3.2 Improving the status of vocational education

Silberman (1986:6) maintains that the reason for the low status of vocational education is that it is not a university admission requirement. There is no place for it in the goals of the young urban professional. The attraction of higher education is evident. Degrees lead to better jobs, those with more prestige and better working conditions. However, better jobs are not necessarily more productive. There are dysfunctional consequences from the best and brightest students avoiding economically productive jobs in favour of more comfortable and prestigious positions in law and finance. The problem gets worse when success driven graduates assume positions of leadership. Those in policy making positions from a strictly academic background cannot appreciate the value of secondary vocational education. They associate vocational education with short education, which should be reserved for someone else's children (Silberman 1986:6).

4.2.3.3 Changing involvement of business and industry

In many of the industrialized nations it is no longer true that preparation of young people for their working lives takes place mostly in the workplace. Secondary and post-secondary schooling has assumed ever greater responsibility in this regard. Noah and Eckstein (1987:1) state that this expansion of public education in most

industrialized countries seems to have now reached a plateau. The private sector in the USA is expressing concern at how schools are preparing or failing to prepare the youth for employment. Schools are been forced to look at new ways of fulfilling this task. Active partnerships are been formed in different forms across the USA. Schackel (1994:22-23) describes how some of these partnerships work. By engaging in partnerships with local businesses, schools can give students, especially those at risk, the skills they need to become successful adults. Employers need workers who are dependable, honest, able to get along with others and who possess the proper attitudes. To become fully functioning adults, they must acquire several skills. The first are the basic academic skills necessary to prepare them for a world that is becoming increasingly technological and complicated. Boutwell (1994:14-17) states that without corporate and governmental intervention, educators will prepare students for jobs that will never exist. The world will be increasingly high-tech and information-based. It is now essential to learn processing skills, to synthesize ideas, to create formulas and to develop capabilities of identifying and solving problems.

4.2.4 Employers' concerns about schools

According to Bown (1988:20), education systems in many countries are under pressure to relate school more closely to working life. Noah and Eckstein (1987:2) state that there are several and widespread employer complaints about the shortcomings of formal schooling. They claim that schools are ineffective in teaching a basic set of skills and attitudes. They say schools teach an inadequate curriculum, so that students remain ignorant of the merits of business

and industry. Schools even promote hostility to business enterprise. The accreditation system causes confusion and is unhelpful in the hiring process. Schools are inefficiently run. To improve matters, employers and organizations in Germany, France and Britain make the same proposals. They request that schools concentrate more on the practical application of knowledge, relax the over-emphasis on preparation for higher education and become more open to employers' priorities with workers at entry level. Employers ask for specific job training to be done under their supervision and not by the schools. They urge for the quality of teachers to be improved and that teachers and students be increasingly exposed to business and industry. This is to prevent the youth gaining false notions about the working world. They would like schools to adopt their concern for the efficient and productive use of scarce resources. Spring (1991:25-26) describes the increasing involvement of business in American schools. The impetus of this corporate interest in education reform is concerned mostly with the quality of the labour pool. Thomas and Smoot (1994:34) report that critical thinking is a vital work skill. Today's jobs demand of workers higher-order thinking skills. To help students make the transition to work, schools must take an educational approach that enables students to think critically. Figueroa and Buono (1994:26-27) relate that teaching higher-order skills must have an integrated approach. Just placing students in the workplace does not assure that positive learning takes place. Cumming (1988:545) relates the need for coherent strategies for the study of work applicable to pupils. There should be an increasing integration of work across the curriculum, which will encourage greater collaboration and cooperation between schools, industry and the community.

4.2.4.1 Curriculum

In Britain, France, Germany and the USA, much of the criticism against schools is that they do not provide adequate and appropriate preparation for entry into work (Noah & Eckstein 1987:5). Much of business and industry's critique is directed at the schools' curricula and their organization and management practices. In these countries, it is frequently voiced that schools do not provide adequate and appropriate preparation for entry to work. Specific points are raised against school curricula. In Britain it is felt that the level of literacy and numeracy of school-leavers is below what it should be. Employers point to illegible writing, limited vocabulary, weak grammar and poor presentation. Lack of mathematical skills make the school-leaver unable to cope with craft training without remedial training (Noah & Eckstein 1987:5). There is the paradox that employers attack schools for being too academic yet also claim that they do not equip the youth with adequate basic educational skills. It is also claimed that students lack the cooperation and communication skills needed for successful work in the business environment. British employers complained especially about the failure of schools to inculcate positive attitudes toward business and industry. Instead they even promote negative attitudes to authority, the market-driven, profit-orientated economic system, and entrepreneurial activity in general. Noah and Eckstein (1987:6) state that employers have expressed their support for incorporating vocational aspects into school curriculums. They believe that youth should leave school with an adequate understanding of how wealth is created in society, and the essential role of industry and commerce. The French employer complains of the great gap between the

world of the school and that of work. Jamieson (1991:57) concludes that major aspects of schools-industry work are not central to the life of British secondary schools. Although the work-related curriculum has gained a boost, he is concerned with their place in the curriculum. In some schools work experience and mini-enterprise activities are extra-curricular. In others they are frequently placed in slack curriculum periods like after the examinations. This is compounded by the fact that such activities in school are rarely assessed.

4.2.4.2 Operation and governance

According to Noah and Eckstein (1987:7-8), employers criticize the operation and governance of educational systems. They point to wasteful practices that cause high costs per unit. There is the high number of elective subjects and courses. They complain about the lack of response to the changing needs of the workplace. Planning for school reforms leaves out considerations of market forces. Schools that provide skill-specific training tend to waste in the high expense of training. The skills provided do not fit well enough to those needed in the workplace. School-leavers are good at theory but do not have a practical bent. Employers in Britain, Germany and France point to excessive red tape and government interference in school-based and outside school vocational training. Attempts to improve education by better planning have resulted in inefficiency and bureaucratization. Employers view schools as insular and dominated by professionals who have little regard for the realities of economic life and the advice of business people. A reason for this is poor teacher education. Teachers are often unable to relate their

teaching to reality and practical experience (Noah & Eckstein 1987:7-8). Jamieson (1991:55) relates that schools should be encouraged to forge links between themselves and the industrial and commercial world, and to lay the foundations of economic and industrial understanding in the youth. Also encouraged is the appointment of liaison officers between schools and industry to interface between their schools, local industry and the school-industry organizations.

4.2.4.3 Employers' involvement in education and training

Although criticisms and proposals for change tend to be similar in various countries, the nature and extent of employer involvement in education and training vary vastly. In Germany much emphasis was placed on systematic education, training and credentialling of youth for entry into work. The "dual system" was developed in which educational authorities, employers and trade unions cooperate to allow the youth to enter apprenticeships while continuing with general education on a release-time basis (Noah & Eckstein 1987:2). In France, partnerships between education and industry is recent and the youth receive their job-related training in vocationally oriented secondary level institutions financed by the government (Noah & Eckstein 1987:2). Britain has been reluctant to assert a national youth training policy, until most recently. Credentialling has been left mostly to uncoordinated initiatives of employers and other organizations. The schools have been left to deal with academic credentialling (Noah & Eckstein 1987:2-3).

Finn (1992:26) encourages the partnership between business and education by promoting the idea of the teacher placement service. This was established in 1989 in Britain by Understanding British Industry under contract to the Department of Trade and Industry. Placements provide teachers with the opportunity to gain first hand knowledge of how industry operates, and to develop a curriculum that reflects this. These wide ranging projects involve an interchange of skills and ideas between education and industry. Teachers' understanding of industry is enhanced, which they disseminate to pupils and colleagues, while the companies involved gain insight into education.

4.2.5 The practical learning experience

To Silberman (1986:8), it is important to raise the quality of the learning experience of pupils. His students related that the most significant learning situations were when they were entrusted with genuine responsibility and given tasks to complete without continuous supervision. Significant learning events usually involve realistic problem situations. The learner is thrust into a position of responsibility. Usually there are potent consequences connected with his performance, such as strong peer approval or disapproval. Such events seldom occur in the classroom. Silberman (1986:8) states that supervised field-based settings enable pupils to interact with adults in work situations. It enables them to learn several skills and to identify with adults in society. With these values in sight, it is recommended that all secondary pupils be given academic credit for community service activities. Schools should be judged and reimbursed according to the extent to which they provide opportunities for youth to be of service

to the community.

Silberman (1986:8) was impressed by programmes that provided tangible service, such as child care, food preparation, dental care, health care, tutoring and manufacturing home appliances. Students enjoyed what they were doing and took pride in their products and their efforts. However, field-based learning does have its problems. Teachers supervising and coordinating field activities can help or hinder learning. Work sites varied in effectiveness. Effective sites had supervisors who accepted responsibility for the pupils and encouraged pupils to ask questions and to accept responsibility. Ineffective supervisors get busy with administrative and clerical work. They do not see a need to work with personnel to ensure students understand relationships and connections between academic knowledge and practical applications of that knowledge.

4.2.6 Informal employment

Bown (1988:19-21) challenges the idea of always equating work with a job paid for by an employer. For instance, for most women, work has never been a paid job. The Nigerian national plans describe 90% of the working population as of self-account. Thus, individual enterprise functions within a network of social relationships to provide support and credit. According to Bown (1988:19), British attempts to encourage entrepreneurship in educational curricula by promoting the virtues of competitiveness is a negative idea. Cooperation and work-sharing are likely to be much more useful to small groups and individuals trying to make a living selling services. Furthermore, Bown (1988:20) questions the relating of the school with the working world

by mere visits and work experience. To him it is unfortunate that the workplace is seen as something removed from the school. The school itself is a workplace where cleaners, teachers and librarians are paid employees.

4.2.7 Sri Lanka's experiments in vocational education

According to Gunawardena (1991:79), Sri Lanka as a Third World country, also experimented with vocationalising education with the aim of a closer linkage between school and work. During the 1970's and 1980's two major curricula innovations were implemented at secondary level: Pre-vocational Studies and Life Skills. The objective was to smooth the transition from school to work. Gunawardena (1991:83) states that the former was intended to give an understanding of agriculture, local raw materials, methods and skills of production. It was not to teach technical subjects for a vocation but to give basic skills. In concrete action it encountered a series of difficulties. It seemed ambitious. Principals and teachers had difficulty comprehending the philosophy and objectives. Teachers had to consult with local industry and to choose an area of study relevant to the immediate neighbourhood. Meetings with local experts, pilot projects and data gathering were encouraged. Of the six periods set for the subject, four were to be used for practical work and two for theory. Priority was given for INSET of teachers in Pre-vocational Studies. However, the task was beyond the capacity of most principals and teachers, who had misgivings about the roles they were expected to play. As curricula was linked to the child's immediate environment, the teacher had to have thorough knowledge of the locality and by means of discovery methods, had to teach about the environment and the various

applications of this knowledge in local occupations. These reforms demanded too much from the teacher. Gunawardena (1991:83) states that teachers resorted to imparting only the informational aspects of the subjects. Difficulties assumed even graver proportions when viewed in relation to the magnitude of the programme, and that it was hastily introduced to all secondary schools in the system. In the start there were 1068 subjects, but eventually this was reduced to 82.

Gunawardena (1991:83) states that in many schools, because of untrained teachers, Pre-vocational Studies was reduced to mere imparting of vocational skills with a notable absence of its broader objectives. The innovation clearly demonstrated the kinds of problems caused when a system, accustomed to mere implementation of centre-made directives, is expected to perform something creative and innovative. The deficiency of needed equipment was another difficulty. The programmes were to be so designed to eliminate or reduce the reliance on imported machinery and equipment. Great store was laid on the ingenuity of teachers for the proper utilisation of resources that are locally available. There was also the resentment of parents. Decades of excessive over-valuation of academic education prevented them from accepting "preparation for a vocation" Gunawardena (1991:84). It was seen as an alternative to academic education. Another study (Little & Singh 1992:182) also describes the Sri Lankan education system as examination-dominated.

Gunawardena (1991:84) informs that there was an imbalance in the choice of subjects according to local relevance. Prestigious urban schools had subjects like photography,

motor mechanics or radio technology, while others chose agriculture or fishing. This was worsened when traditional vocations were linked to the caste system. There were even allegations that the political party in power was attempting to create a class-based society and to deprive disadvantaged pupils from access to higher education. The conclusion is that unless the structure of incentives is changed, even a far-sighted and appropriate innovation can only end in failure.

Gunawardena (1991:85) points out that on the other hand, the Life Skills programme achieved success. Both programmes were similar in their objectives, but Life Skills was more specifically defined and was not linked to a particular vocation in a locality. It was implemented in 300 schools on a pilot basis. It also had teacher training - an INSET course of three-and-a-half days followed by a two-day in-service programme at regional level. Pupil performance was evaluated on a rating form for each learning event. It assessed knowledge, comprehension and application. Schools were required to administer rating forms twice a year.

4.2.8 Conclusion

There is an increasing awareness of the importance of ECE in later schooling; it is an important requirement in the linkage between school and work. Developed countries like the USA have high percentages of their five year olds attending pre-school (4.2.2.2). There is a need for policy and for employers, government and other agencies to become involved. Good partnerships will ensure proper funding of good-quality day-care programmes affordable to parents (4.2.2.3). Business involvement can be enhanced through

benefit packages attractive to workers. Child-care assistance improves productivity. Several successful partnerships in the USA such as the Brookline Early Education Project show what can be achieved (4.2.2.4).

In several countries, including developed countries like Britain, France, Germany and the USA, there are concerns about how relevant schooling is to the needs of the labour market (4.2.4). One concern is the curriculum (4.2.3.2), another is the lack of sufficient coordination and cooperation between educators and business in the preparation of youth for employment (4.2.3.3). There are various ways of improving school and business partnerships. It is clear that there should be clear guidelines and recommendations in a country within which these partnerships should operate (4.2.7). This would ensure that individual companies could not overstep their mandate through factors such as over-zealousness in the profit motive. Schooling should ensure that the basic academic skills such as literacy and numeracy are imparted to pupils, to equip them and to make further training possible. Their employability would be enhanced. Educators should also be helped to keep abreast of the rapidly changing technological world and the new skills needed in the job market (2.2.3.1). For this there should be a balanced and healthy partnership between education and business (4.2.7).

In any innovations in school reform, it is important that planners communicate aims to teachers effectively, that aims be realistic for teachers to implement and that programmes not be too hastily introduced. The success of the Sri Lankan Life skills programme was made possible because it was introduced to 300 schools on a pilot basis, there was

adequate INSET and pupil performance was evaluated (4.2.7).

4.3 THE FEDERAL REPUBLIC OF GERMANY (FRG)

4.3.1 Introduction

Germany has an interesting history. It had experienced the effects of Industrial Revolution relatively late, acquired colonial possessions after the other powers and had to convert from an agricultural economy to a highly industrialized state. The transition of its educational provision had to be very swift (Dekker & Van Schalkwyk 1989:34). Germany's miraculous war recovery (Wirtschaftswunder) during the 1950's is a source of interest to many visitors and observers (Cantor 1989:95). It has long been a leader in trade and industry, contributing to 11% of the West's total export. It is one of the greatest economic forces in the world, with one of the most stable currencies, the Deutsche Mark (Dekker & Van Schalkwyk 1989:33-34). Cantor (1989:114) states that the German "dual system" delivers a vocational education which is of a very high standard and that vocational qualifications are much more widespread than in many other industrialized countries. The result is a high quality labour force which creates the high quality products for which Germany is world famous. The acknowledged quality of German products and the competitive power of the German economy worldwide, can be attributed to German development, the level of qualification, and the number of skilled blue collar and white collar workers. These attributes are a direct result of the vocational training which has a central place in the education system. Bildung und Wissenschaft (education and science) (1992b:3), confirms this and states that there is a reasonably low

level of unemployment and juvenile delinquency among youth, and a well organized transition from school to the world of work. Instead of the school, the workplace constitutes the central point of vocational training.

Because of Germany's economic success after two devastating wars this century, the present writer is motivated to make a study of its education system in order to find what factors and practices have contributed to this success. Another incentive is because it has influenced several education systems across the world. Many great educationists were born and bred in Germany. There are names such as Martin Luther, Comenius, Froebel and Herbart. The first state to accept legislation on compulsory education and to institute teacher training centres was Prussia (Dekker & Van Schalkwyk 1989:23). Of interest are the factors and structures in German education that enable it to fulfil its mandate.

4.3.2 Social and educational background

West and East Germany were united on the 3 October 1990 and from the 1991 census have a population of 80,274,564 people (Europa 1994:1247). Five eastern states were added to the 11 western states, giving a total of 16 states (Europa 1994:1258). This affects provision of education in Germany, which will be enlarged upon in paragraph 4.3.3.5.

4.3.3 The decentralized education control structure

4.3.3.1 Introduction

Educational control is decentralized (Barnard 1985:139) and is highly influenced by two ground motives: a dominant

democratic incentive/motive, and a pride in orderliness, where law prevails. Cantor (1989:96) states that West Germany is "both an ordered and orderly society in which most aspects of economic life and educational provision are determined by detailed laws". The present writer believes that this particular form of decentralization assists markedly in the effectivity and administration of German education. Administrations and schools have ample space to adapt to local conditions and circumstances.

4.3.3.2 The role of the state

The central Ministry of Education only specifies the broad education policy and planning while the federal states are responsible for the control of education (Dekker & Van Schalkwyk 1989:40). The Federal Ministry of Education and Science is involved in the general broad specifications for universities, the improvement of scientific research, the improvement of education and teaching in general and non-school career guidance and training (Dekker & Van Schalkwyk 1989:42). Other state bodies are more directly involved in education. "Die Deutscher Bildungsrat" works to establish educational needs and to assist in planning the education system so that it conforms to the cultural, economic and social demands, while considering the future demand for schooled workers (Barnard 1985:134). It formulates plans concerned with the structure of the education system, establishes financial needs, and makes recommendations for the different levels of the school structure. Some other bodies such as the "Bildungskommission", are also involved in an advisory, coordinatory and cooperationary capacity (Barnard 1985:135-136). This paragraph summarizes recurring points.

(Bildung und Wissenschaft 1991d:5-7; Dekker & Van Schalkwyk 1989:40,41,42).

4.3.3.3 Control by separate Länder

Education is controlled by 16 separate and highly individualistic provincial governments (Länder), who jealously protect their autonomy whilst remaining loyal to the Federation and being obliged to observe Federal Law (Bildung und Wissenschaft 1991d:4-5). Each Land has its own Ministry of Education and inspectorate and is responsible for its own general school policy, curricula planning, setting up of examination requirements and the final certification and appointment of teachers (Bildung und Wissenschaft 1991d:5-6; Dekker & Van Schalkwyk 1989:44). Devolution of power exists at district and county levels, but no changes to general policy may occur without ministerial sanction (Mallinson 1980:138). National policy coordination occurs jointly between the Permanent Conference of Education Ministers and the Federal Government, but real power is vested in the Land (Bildung und Wissenschaft 1991d:4-5). District control bodies ensure that school education is increasingly the responsibility of district communities, whose education management holds great administrative responsibilities. Broad policy from central level is converted to details by the individual schools. District communities are traditionally responsible for educating children, with heavy dependence on parents (Barnard 1985:138-139).

To achieve the necessary coordination and cooperation between school and family, parents are represented at different levels. Class-parent committees ensure cooperation

between class teachers and parents. School-parent committees handle the interests of teachers in their different schools. Principals attend and take part in discussions. District-parent committees have representatives of the school-parent committee in certain districts serving on their particular district-parent committee. It advises school authorities on general education questions, school education and organisation. Land-parent committees serve the Minister of Education with advice pertaining to educational reforms and improvement in the different provinces. It gives broad principles on school content, exercises control on importing textbooks and assists in the compilation of school and examination rules. Bund-parent committees represent the parents of the Länder and can negotiate with the Bund Ministry of Education and Science and the Bund-Länder Committee on policy matters. This summarizes recurring points. (Barnard 1985:138-139; Dekker & Van Schalkwyk 1989:46). This does not seem to be related to the topic. However, with regard to school support services it all assists in bridging the gap between the school and the world of work because all parties agree on the clear purpose of creating a skilled workforce (McGill 1994:484). The democratic approach and extensive involvement ensures that all interested parties have a contribution to make and this makes for the addressing of imbalances and shortages in personpower.

4.3.3.4 Problems as a result of re-unification

Several problems have emerged with the re-unification of East and West Germany. Jensen (1994:15) states that schools need new organization where teacher initiatives are not blocked by hierarchies. However, reforms cost money and

Germany is struggling with the high cost of reunification. Bildung und Wissenschaft (1991c:10-11) relates that there are still problems of recognition between federal states with respect to final school certificates. There are considerable bottlenecks in the availability of apprenticeships. This is because of the economic situation of the five new eastern states. The federal government intends to help youth from eastern Germany to gain skilled trade training. Smaller businesses would be given a bonus of Dm 5,000 for every additional training place offered. The new federal states would be given increased funds to build up their vocational schools (Bildung und Wissenschaft 1991c:16-17).

Bildung und Wissenschaft (1991e:12-13) relates the problem of classes getting larger in the western federal states, and that this is largely affected by German families moving from east to west Germany. Parent associations are complaining about the reduction of teaching periods, yet thousands of teachers were out of work. The authorities now justify their resistance to more appointments by referring to the costs of German unification.

Another problem is the scarcity of student accommodation and hostels being poorly appointed. Many of the students from eastern Germany want to study at higher institutions in western Germany. According to Ortleb (in Bildung und Wissenschaft 1991a:9), federal minister of education, there is a disparity between this overcrowding at higher institutions and the lack of skilled workers. He sees a marked discrepancy at present between individual educational career decisions and labour-market requirements. Thus vocational education should be made more attractive.

According to Uthmann (1991:8), a large-scale programme to set up supra-firm training centres in the new states has already started. West Germany has had such training centres for many years and regards them as an effective complement to in-firm training. This does not mean that learning takes place elsewhere. Complementary courses, including those that prepare for examinations, are being offered. Particularly in the crafts, there are tightly-knit networks of such centres. Industry is increasingly making use of them too. Assistance from West Germany will have to focus on the provision of enough training places for East German apprentices and on tidying over the five new states during the difficult period of transition until the firms have fully adapted their structures to the requirements of a market economy.

Wulf and Sting (1992:66-68) cite the difficulties of constructing a functioning educational system for eastern Germany. Eastern states have an irrational craving for west German school-leaving qualifications such as the *Arbitur*. Hence more than 50% of parents want their children to attend a *Gymnasium*. However, politicians call for more pupils to choose job-oriented school courses. The east has financial lack and flaws in its infrastructure. Half of all school buildings need renovation. The qualifications of personnel are either wrong or inadequate. Unemployment and economic decline are a burden on tax revenue, which restricts the reconstruction of the education system. Social deterioration impairs pupils' readiness to learn. Parents' shattered careers, lack of perspective and migration lead to resignation and depression.

Wulf and Sting (1992:68) contend that teachers have the further problem of injecting into the system the development

that meets Western standards. But their training and past working methods are not favourable to perform such a task. The previous system of indoctrination of detailed directives for work and behaviour had stifled flexibility and independent classroom organization. Now teachers must teach new material in a completely new way. All of the old teacher-training institutions have been closed. Teachers must teach the new lessons with old material. West German textbooks and teaching aids are absent, as well as media, copiers and computers. Universities have been degraded to polytechnics to offer job-related training. This has produced an academic desert in the east.

According to Pöggeler (1992:51-52), nothing has changed in east Germany since 1989. Helplessness still predominates. Old school books are still used because there are no new ones. This is despite much from the west. The concepts and mentality of these western books are not understood by the teachers and pupils because they presuppose too much foreknowledge of the democratic way of life. It will still take some years to develop new curriculum, examination regulations and textbooks. Regulations from the west cannot be transformed by ministerial decree: the two parts of Germany have become two estranged nations with regard to education. Mitter (1990:333) also describes the difficulty of merging the two diverse systems. Teachers and educators from the FRG had to preserve and spread a core of democratic, liberal and social values. Those in the east were bound to the Marxist-Leninist ideology (2.4.4). Its curriculum was characterised by mandatory prescriptions, hardly leaving any free space to the individual teacher (2.4.4). Diversities were particularly marked in method and style of teaching. East Germany was rooted in receptive

learning and authoritarian teaching, while the FRG had tendencies towards communicative teaching and learning (Mitter 1990:335). Mitter (1992:49-51) enlarges on the problem concerning textbooks, teachers and curriculum. To him, East Germany presents itself as a huge "laboratory" for educational reform. Quick measures like textbooks from the west will not fill all the gaps. West German syllabi and textbooks are mostly orientated to instruction methods based upon communicative interaction between teachers and pupils. As was mentioned, East German schools had focused on an authoritarian style of instruction. Now they must cope with the socialist inheritance of ideological indoctrination (2.4.4) while opening up to the basic values of human rights, freedom and democracy. United Germany has to also cope with her contributions to the European Community, her commitment to the "wider Europe" and to projects of developing education in Third World regions.

Kledzik (1992:18-19) points out the same problems of schools in the new states. It is a new opportunity for each child to think for himself as an individual. This will be very difficult, even for teachers. They were never trained to criticize or ask questions. They had to accept what they were told by the Party. Even their polytechnical instruction to link schools with the workplace (2.4.3.2), amounted to pupils working beside other workers to increase national productivity. Little assistance was given to help them understand work and the real world of work. There are no, or very few facilities for introducing modern technology, home economics, computers and word processors. In reality children were used as child labour.

According to Kledzik (1992:19), most of the schools are the same as in 1945. Many teachers show willingness to absorb modern concepts of education, but without the infrastructure and better educational environment (school buildings, etc.) this is very difficult. According to Sterling (1993:744-745), for scholars and policymakers, East Germany is a bonanza, especially for those interested in how the system failed under communism and how it can be reconstructed under a capitalist economy and a pluralistic political system. The change after 1989 has brought several questions about education. Some needed to be resolved quickly, others would require months and years. Decision making has become a confusing problematical process. For instance, the controversy over the school code continued unabated and even increased throughout 1992 (Sterling 1993:756-757).

4.3.3.5 Conclusion

The various structures set up to ensure democratic involvement facilitates progress in education and the link between the school and the world of work (4.3.3.3). The present writer believes that the great diversification in school types and education provision are made possible through this level and extent of decentralization (4.3.3). Extensive representation enables education policies and recommendations to be effectively implemented. The opposite effect is seen in former East Germany (4.3.3.5). Bildung und Wissenschaft (1991e:20) relates that the ruthless reduction of handicraft during 40 years of command economy (2.4) had resulted in the inadequate training of craftsmen.

The recommendations from research of the RSA's education system (3.2.1; 3.2.2) may be difficult to implemented because of the lack of sufficient representation. Germany has high levels of pupil, parent, teacher and business representation in various bodies (4.3.3.3). Several problems have been experienced after unification (4.3.3.5). Of note are the steps taken to reconstruct the economy, education and linkage between school and work in the former east German states. There is the large-scale setting up of supra-firm training centres to complement in-firm training (4.3.3.5). Many observers would be interested in Germany's experience regarding the restructuring of the education system in the five new federal states. The new South Africa, currently undergoing restructuring, may gain from such experience.

4.3.4 German general education

4.3.4.1 Introduction

According to Kaiser (1991:188) the entire school system, including the small private school sector, is under state control through the Länder and federal states. School attendance is compulsory from age six to eighteen years. Bildung und Wissenschaft (1991d:9) confirms that all children, including those of guest workers, are subject to compulsory education from the age of six years. Compulsory education is normally 12 years. Nine years are full-time, up to about 15 years of age, and three years are part-time at a Berufsschule (vocational training centre).

The German school system shall be looked at under two major headings, general education (4.3.4) and specific provision

for vocational education and training (4.3.5). This is just for the purpose of clarity, because each complements the other. Furthermore, there are strong aspects of preparation for the vocational and the world of work in general education. General education includes seven different categories of schools. These are: Kindergarten and Schulkindergarten (pre-primary), Grundschule (primary), Hauptschule (general secondary), Realschule (technical secondary), Gymnasium (academic secondary), Gesamtschule (comprehensive secondary) and Ganztagschule (whole day secondary). Other types of schools include vocational, special, private and poli-technical schools (Cantor 1989:97-100; Dekker & Van Schalkwyk 1989:49-50).

4.3.4.2 Kindergarten and Schulkindergarten

Attendance at these schools is not always compulsory, but demand for it has increased because an increasing number of woman are joining the labour market. According to Bildung und Wissenschaft (1991a:12-13), provision is fairly widespread but not enough. According to Cantor (1989:97) three-quarters of the pre-school population attend Kindergarten. The demand is increasing as more women become gainfully employed. According to Husen and Postlethwaite (1985:2035), pre-school or nursery-school facilities are mostly sponsored and run by churches, private welfare agencies and other private groups. Although subsidized by the state governments, attendance is voluntary. On average they can handle 60% to 80% of the age group. Education departments are not directly responsible for these schools, but the community handles them quite well with parents' financial contributions ensuring their up-keep (Cantor 1989:97). Emphasis is placed on preparing the three to

six-year olds for compulsory PE through group activities.

Three distinct types of facilities exist. There is the traditional school which caters for mothers who are at work. The function is mainly of a social welfare kind. The children are the whole day at school, receive meals, sleep for about three hours and receive regular health checks. The Schulkindergarten is attached to a primary school and caters for children who are backward in some way and need special care. These schools are found mainly in large urban areas, financed by public funds and are controlled and inspected similar to the primary schools. Vorklassen are for children who have not reached the compulsory school age yet but have progressed beyond what Kindergarten can offer (Bildung und Wissenschaft 1991d:13). A special feature is the distinction between Kindergarten and Schulkindergarten. The latter is for children whose chronological age is right for compulsory education but who are not mature enough and therefore need special preparation (Dekker & Van Schalkwyk 1989:51).

Such classes are sometimes attached to the PPE section at some primary schools. During a visit to the Schillerschule in Dettingen (Germany), Jäger (Interview 29.1.1992), direktor for 21 years, took the present writer on a tour of the school showing first-hand the difference between the two kindergarten classes. The Schulkindergarten class was more colourful with much stimulus provided for the children. This class does not do reading and writing, but does more music, painting and play. This provision is important because it ensures accommodation of all the pupils in the school system. It ensures against drop-outs from the school system at a later stage, because pupils are made school-ready at their own pace of development. The concept of failure is

avoided and children can develop naturally. School-readiness tests are done during March and April on a special day when all parents bring their children to school. Using a list of the names, the school first checks for who has arrived, then for who is able to come to school. Those with problems with sight and hearing, have tests. It is possible for these to proceed through the system to university, but those with learning problems must go to special schools (Sonderschule). The parents are then informed of what should be done. The teachers go to the kindergarten and observe who needs an extra year.

Jäger (Interview 29.1.1992) mentioned a problem that arises when the desire of parents differs from the assessments of teachers. Solutions are found by consultation between parents and teachers. Sometimes parents agree with teachers, sometimes they do not. Where there are still differences, a teacher from another school would conduct psychological and intelligence tests. Sometimes parents are found to be right, other times teachers still disagree. In such a case, parents have a last chance; tests from another school. This is an important process in Germany because of what happens in the fourth grade, that is, 10 years of age. In the fifth and sixth grades they have the chance to change schools. The important process and experience of observation and tests come into play again.

The present writer views all this as tying in with the democratic nature of the school system, with effective parent involvement and interest, and effective preparation and provision for PE. The eventual linkage with the world of work can never be achieved, if the basic preparation and readiness is not gained at this early stage. In comparison

with some other countries, including South Africa (3.3.3.3; 3.3.3.6), the weaknesses in the linkage between school and work can be traced to this stage.

4.3.4.3 Grundschule (Primary school)

In Germany the solid foundation for further education and training is laid in the Grundschule. Germans pin their hopes on a common Grundschule geared to give a sound, basic and thorough general education. It conveys knowledge, lends insight, develops skills, extends social experience and prepares the child for adult life. The wide range of individual differences between pupils is accommodated, hence a differentiated teaching system. Curricula are modified to develop analytical and scientific thought and work patterns early on in pupils. This adequately prepares them for the secondary phase of education (Dekker & Van Schalkwyk 1989:52). Compulsory are: German, English, social studies, history, geography, biology, chemistry, maths, music, art, practical work and physical education (Dekker & Van Schalkwyk 1989:52).

According to Cantor (1989:100), the schooling stage in Germany provides a better foundation for later vocational training and better pre-vocational instruction than its British counterpart. German school-leaving attainments provide a sound basis for subsequent training. Mathematical ability is outstanding and it is a fact that German standards are higher than those in Britain. The German curriculum is broader with higher levels of attainment in core subjects. Another factor is programmes such as Arbeitslehre (Education for work), which have been introduced into schools in all parts of Germany. They have

been confined to Hauptschule and Gesamtschule and in practice are very much restricted to children from working-class parents. It is not designed to provide job-specific training, although it includes a period of work experience. It substitutes former subjects like woodwork, metal work and needlework. It is not coupled to subjects with only one area of learning, but can be taught through several - like engineering, economics, social sciences and home economics.

According to Kledzik (1989:16), Arbeitslehre is a new field in lower secondary education. There are difficulties in the provision of materials for teachers and pupils. Teachers are hesitant to take on new subjects, because this will reduce existing subjects. Opponents to it complain of premature introduction. They say they need long-term teacher training programmes before these subjects are established in the curriculum. Reactions are not always positive. Younger teachers are not content to teach this subject. Instead they would emphasize the individual's right to determine his own career and life.

Jäger (Interview 29.1.1992) showed the present writer the Schillerschule in Dettingen (Germany). Facilities included a hall, laboratory, music room, dark room for photography, "cutting room", machine room for wood, machine room for metal, clay or ceramic room with its own oven, elaborate kitchen and two needle work rooms for junior primary and senior primary. With regard to the practical subjects, boys and girls attend kitchen and machine rooms. Only after the fifth grades do they choose. Boys can continue to go to the kitchen and girls can stay with woodwork and/or metal work. Part of the kitchen course includes washing clothes in the

washing machine and washing by hand with enough facilities for both. Boys and girls are trained to iron clothes and to care for babies. They have real dolls with the correct weight of a baby. Boys and girls do needle work up to grade five then they have the choice to change to another technical subject. They could also work together by integrating practical subjects. For example, the chairs are built in the woodwork class and the cushions are done in the needle work class. Teachers have the chance to work together in this. It becomes a good exercise in coordination and cooperation. The commercial aspect is integrated here because later they can go to the market and sell the finished products. This includes the clay/ceramic and other creations of the pupils. This all brings the real world of work outside the school closer to the pupils (Jäger interview 29.1.1992).

4.3.4.4 Secondary education

According to Husen and Postlethwaite (1985:2036), this consists mainly of three types of schools. The Hauptschule, attended by 45% of the 10 to 15 or 16-year-old age group, caters for those who could not obtain places in other schools. It has been in decline for some years, especially in urban areas. It has been associated with the most backward and most deprived children, including a high proportion from the Gastarbeiter (foreign workers). The majority of its graduates proceed on to part-time vocational schools and apprenticeships. Mitter (1992:48) also points out the rapidly decreasing attractiveness of "Hauptschulen" for German parents, especially in big towns, irrespective of the current political majority. They have now degenerated to "remanider schools" for the children of migrants and members

of marginal groups, with all the negative connotations of this de facto segregation.

Husen and Postlethwaite (1985:2036) state that the Realschule, attended by 25%, has a more academically demanding curriculum. Its graduates full-time vocational schools or apprenticeships with the prospect to continue later to polytechnic colleges (Fachhochschulen). The Gymnasium is predominantly academic and attended by 25% of the age group. Some 80% graduate with an Abitur entitling them to continue studies at university level or polytechnic colleges. An interesting feature is the vocational training at the upper-secondary level, that is, the last three or two years of secondary school. It is unusual if compared with other countries, like Britain and the RSA. These countries do not have the same measure of linkage between school and work. Although they have an apprenticeship system, it is usually post-school. Avenues for German apprenticeship begin at upper-secondary level. The outstanding feature is the dual system (cooperative system). Bildung und Wissenschaft (1991d:19) describes the dual system as a combination between Berufsschule (Vocational School) and Betrieb (Firm). There is a close link between apprenticeships, offered and organized by privately and publicly owned enterprises, and part-time vocational training of a more general and theoretical kind offered by state-run schools (Cantor 1989:97; Husen & Postlethwaite 1985:2036). Cantor (1989:105) states that within the dual system the Berufsschulen are the junior partners, judging from the limited time trainees spend in them, and the fact that school achievement records count very little in final apprenticeship examinations.

4.3.4.5 Conclusion

The German school system offers a sound general education (4.3.4) as well as adequate provision for specific education (4.3.4.4). There is a natural and smooth transition between PPE and PE (4.3.4.3). It is assumed that for those without the former, the transition is not as smooth. Both establish a firm foundation for continuation into further levels of education. Although the former is not always compulsory, German parents play a keen and active role in ensuring their children's right to good sound education. The highly democratic system ensures much consultation between the various role players like educational authorities, parents, teachers, students, and industry (4.3.4.2). Secondary education is well diversified presenting several options to students, most of whom are adequately catered for (4.3.4.4). The now famous dual system of apprenticeship works more effectively than in most countries (4.3.1).

4.3.5 Vocational education and training

4.3.5.1 Introduction

The outstanding feature of the German system is the dual system and the close cooperation and collaboration between business and commerce and the school. This can be seen, in particular, in the provision of vocational education and training.

4.3.5.2 School differentiation

The differentiation of schools show the close link between schooling and industry, especially vocational schools like:

the part-time vocational school (Berufsschule), the full-time vocational school (Berufsfachschule), the more advanced vocational school (Fachschule) (Cantor 1989:101-102), and "Technische Gymnasien" and "Sonderschulen" (Barnard 1985:142, 145-147). Bildung und Wissenschaft (1992g:4) points out that there exists a wealth of various school forms and channels in Germany to the extent that "it is impossible to list all the different educational opportunities" (Bildung und Wissenschaft 1992g:6). The Hauptschule is compulsory for all pupils who, on completion of Grundschule, do not go to another type of secondary school. Its main aim is to provide pupils with knowledge of the professional and working world, in order to help them in their eventual career choice. One of its compulsory subjects is Arbeitslehre (Working World Practices) (Bildung und Wissenschaft 1991d:15; Kledzik 1989:16). However, Bildung und Wissenschaft (1992e:16-17) indicates that a crisis surrounds the Hauptschule because of its dwindling pupil numbers over several years. Some states want to amalgamate Hauptschule and Realschule. School researchers indicate that parents view the Hauptschule as the last choice. Hardly any attractive occupational paths exist for Hauptschule pupils today.

The Realschule prepares its pupils for jobs requiring independence, responsibility and leadership in the various vocational fields. Its aim is to provide the foundation for further basic training and marked differentiation programmes providing pre-conditions for various educational courses. The Realschule differs from the Hauptschule by an extended foreign language programme, and attempts to tackle systematic subjects more intensively. Realschule culminates in a 1) Intermediate School Certificate (necessary

to attend a number of vocational schools, 2) Senior Technical School, and if certain standards are fulfilled, 3) the Oberstufe (Classes 11, 12 & 13) (Bildung und Wissenschaft 1991d:16).

Berufsschule are attended by those either undergoing initial trade training or who already have a job. Their responsibility is to teach general and specialized learning content, at the same time considering the requirements of vocational training. Instruction is of a part-time nature or in continuous sessions. It is closely linked with the training in firms, including interplant training centres (Bildung und Wissenschaft 1991d:19). Berufsfachschulen provide full-time preparatory courses for occupations or vocational training, and education of a general nature. Entrance qualifications are a Hauptsschul Final Certificate or Intermediate School Final Certificate, depending on the proposed training objective. Courses vary in length according to the vocational sector concerned and the eventual aim. The minimum length is 12 months. Commercial School, Child Care and Technical Assistants are just a few of the many courses offered (Bildung und Wissenschaft 1991d:20-21).

4.3.5.3 School attendance and accreditation

According to Ainley (1990:105), the German system succeeds in providing meaningful qualifications to over 90% of its school-leavers. Instead of the high tendency to leave school and all further education at 16 such as in Britain, Germans remain in education or vocational education and training until 18 or 19. Full time education is compulsory until 16. But for those not continuing to the A-level Abitur,

part-time education at school (education college) is compulsory for one or two days a week. Hence by law most Germans receive some liberal or vocational education until 18. This statutory attendance forms part of a two to three year apprenticeships in about 400 recognised trades. Main school pupils are helped and advised in finding these apprenticeships by careers advisers from local jobcentres as part of a programme of work-learning. Employers make their own selections and a legally binding contract is drawn up. The youth may work full-time if their firms provide training in-house (mostly large companies). Otherwise they attend full-time technical education courses. Most go the dual system route of practical work in a firm which is related to education at a college. The education component is general and theoretical, including subjects like German, maths and social studies. Husen and Postlethwaite (1985:2036) makes the same comparison and conclusions about the dual system, highlighting the close link between the school (apprenticeships) and privately owned enterprises.

4.3.5.4 Apprenticeship

According to Glover and Marshall (1993:594-595), the German apprenticeship system is referred to as the dual system, because it involves two learning tracks: on the job and in school. It is a socialization and training system, through which the majority of German youth between 16 and 18 spend most of their day in an adult environment. They learn such work readiness behaviours like coming to work on time, and valuing quality in their workmanship. They are able to participate effectively in these on-the-job learning systems because high academic standards for graduation from secondary schools is required.

Mitter (1990:337) expounds similarly on this system and states that this sector of vocational education has recently attracted great attention in many countries of the world. Pritchard (1992a:131-132) also talks of the attention from abroad and the pride at home for the dual system. It has a legal basis and this is being extended to the five new federal states. Apprentices train for jobs that have clear specifications and precise designations. There are about 430 of these officially-defined jobs extending across industry, crafts and commerce. Even youth who wish to leave school as soon as legally possible have to undergo some form of education until age 18. Youth who go straight into gainful employment or who are unemployed are not exempted from the requirement to continue education until 18. The training system is based on transmission of existing trade-specific skills from qualified worker to apprentice. There are moves to make this broader to enable workers to transfer more easily from one job to another. The "Basic Vocational Year", encompassing 13 vocational fields, is more school than firm-based, giving broader, more generic training than is usual in an apprenticeship.

Pritchard (1992a:132-133) states that the organization and detailed supervision of the system is split between the federal government and the federal states. The Bund and firms deal with training ordinances, general framework and examination procedures. The states and school deal with syllabus guidelines, timetable and organisation. Training ordinances lay down the required duration of the training period and supply job description and designation. The school curriculum is the responsibility of the state. It involves guidelines for general education, special subjects and options, and permissible patterns of organization such

as the number of contact hours, whether block or day release, and so on. Not all firms accept apprentices and it is not only the big firms that do so; 60% of all trainees serve apprenticeships in firms with fewer than 50 employees. Although small firms are more personal, their shortcoming is that they offer only a narrow range of expertise.

According to Ainley (1990:106) apprenticeship involves a probationary period, followed by interim and final examinations. The latter comprise of theoretical, practical, oral and written sections. They may retake their finals three times. Ultimately, 90% pass. The workplace is of central importance in the balance between theory and practice, and between education and work. The system is controlled by the state, employers and trade unions. Funding is provided mainly by employers through a levy on all firms, whether they train or not. The Berufsbildungsgesetz (vocational training law) gives force to the articles of apprenticeship and the contract between apprentices and employers, and recognises the trades running the apprenticeship schemes. Firms are not forced to train, but if they do, they must follow existing regulations. This point is repeated by Bildung und Wissenschaft (1992a:10), which adds that there are 380 recognised skilled trades requiring specialized training. These prepare the ground for some 25,000 different occupations. Training thus provides for different as well as similar activities. Training regulations set out minimum requirements, but employers may go beyond these and teach skills and knowledge in fields like new technologies and environment protection. Bildung und Wissenschaft (1992b:7) relates that in 1992, in western Germany alone, there were 1,66 million trainees, 43% of whom were female. There were 500,000 training firms, 1,500

vocational schools and 600 interplant training centres.

Ainley (1990:106) states that specialized training for different occupations is also offered by professional associations. On completion of training, apprentices are not guaranteed employment, but they receive recognised qualifications. These give them rights to minimum remuneration in their employment, guaranteed social insurance and entitlement to further subsidised training and retraining. Apprenticeship is compulsory in that anyone choosing not to enter it loses the right to social aid. Ainley (1990:107) states further that unlike in the British Youth Training and in other systems, apprenticeship is the first and not the last resort of German school-leavers. Also the qualification is not the end of a tradesman's career. Further practical and theoretical examinations can lead to a mastership. There is a fundamental cultural difference. Although the German system is hierarchic and bureaucratic, the cultural distinction between professions and trades is not evident. "Beruf" covers all the meanings in the English terms occupation, vocation, profession and trade.

4.3.5.5 Problems in the dual system

According to Pritchard (1992a:137-138) the system, although popular and useful, is permeated with tensions between individuals, schools, firms, the Bund, the Länder and various influential interest groups, all of which have conflicting, educational philosophies. One criticism is that it served women much less than men, although this is changing. Females enter a narrow range of jobs. The government is dealing with the problem: in 1989 a four-year campaign was begun to help counter gender-stereotyping and

to attract girls to more technically oriented jobs. Conventional and unconventional methods are now being used to change traditional attitudes and expectations, but it will take a long time and patience to achieve the desired results (Pritchard 1992a:137).

According to Pritchard (1992a:138), in the dual system it has been difficult to keep to the original intention. Most pupils are part-time and are only in school for one or two days a week. Many have reached the legal age of maturity and work in firms. The result is the school is no longer of central importance to them. It becomes difficult for teachers to know them well, which is an impediment in special cases. Many pupils become slow to develop a group ethos and a feeling of belonging. Their lack of commitment can cause institutions to become soulless places. They come from a wide catchment area, making it difficult to mount evening functions like pupils' councils and school meetings which promote group identity.

Pritchard (1992a:138) contends that conflicts exist between the Bund and the Länder over course structure, timetabling and content. The thoroughness with which the curriculum has been codified, makes it difficult to keep courses up-to-date. The strongly formalised training regulations sometimes act to obstruct necessary innovation. Many of the officially-defined jobs, with their officially-recognised syllabi, can quickly become out of date, despite efforts to modernize content and broaden each job's range. There is the problem of the "Spitterberufe" (minority trades) where there are small numbers of aspiring trainees and it is difficult to find teachers for them, and classes cannot be offered locally for all apprentices in all Länder (Pritchard

1992a:138). It is also unsatisfactory to lump together in training youths doing a variety of loosely related trades. A by-product of the conflict between the Bund and the Länder is tension between the school and the business sector. The Berufsschulen are sometimes not up-to-date with technical equipment and teaching methods, while the General Training Centres have considerable resources. Apprentices complain that in school they have not enough contact with the new technology. For purely financial reasons, there is always the danger of business interests taking precedence over those of the trainees. The system is also vulnerable to the general economic situation. Regional and sectional disparities in the availability of training places can cause a mismatch between the needs of youth and those of firms. Ten % fail to obtain apprenticeships, while many foreigners, young women, the disadvantaged and the handicapped find it difficult to enter the system. The willingness of business to accept apprentices is bound up with market forces and could be badly undermined in times of economic difficulty (Pritchard 1992a:138).

Bildung und Wissenschaft (1992d:15) relates that there is concern over the far too many pupils attracted to academic studies. Vocational school is the last choice. This could lead to a shortage of skilled workers for industry and commerce. According to Bildung und Wissenschaft (1992c:18), almost every school-leaver in the eastern states has obtained a training place. This is despite readjustment problems with their economy. However, industrial and commercial associations are concerned about the large number of unfilled training places in western Germany. They also fear that the inclination towards academic study could cause lack of entries into all the trades.

Pritchard (1992a:139) describes another controversial issue: the subject *Arbeitslehre* (Studies for working life). It was intended to develop manual subjects into courses in economics, technology and life skills which would help youth to adjust to their jobs or apprenticeships when they leave school. Its introduction into *Hauptschulen* and not grammar schools became a problem. Many felt the former made pupils cheaper and easier for industry to employ. However, its relevant curriculum ran the risk of depriving pupils general education, thereby ultimately denying them their chances of social mobility and personal fulfilment.

4.3.5.6 Further education

In Germany the concept "further education" (*Weiterbildung*) exists, which links up with and furthers the first phase of education. It includes the concept adult education (*Volksbildung*) but is not necessarily confined to adults. According to the *Deutscher Bildungsrat* (German Educational Council) the aim is "to equip man to participate and cooperate consciously in the development of all areas of life, and also of his own personality" (Dekker & Van Schalkwyk 1989:74). Academic programmes, in-service training programmes, vocational training institutes (factories), libraries, correspondence colleges, radio and television programmes, theatres, re-training centres, management schools, and adult education centres (*Volkshochschulen*), all help to promote the excellence ethic. Excellence is not only a goal of commerce but of the country in general. Dekker and Van Schalkwyk (1989:35) cite that the respect for excellence is one of the main strengths of German society and industry. "*Leistung*" (achievement) is used like a technical term in schools, and is indicative of the high standard the Germans

expect from each other (Dekker & Van Schalkwyk 1989:32). The present writer visited Germany in January 1992 and was impressed at the way information on schools and courses is communicated. There are a great number of booklets such as "Auf richtigem Schulkurs Orientierungshilfen für Eltern", circulated from schools, which relate to CE and other learning opportunities.

4.3.5.7 Teacher training

According to Husen and Postlethwaite (1985:2039), there was previously a separation between teachers' colleges and universities. Teachers for Gymnasien received their training at the latter, while the former were for teachers for primary, Hauptschule and Realschule. Most teacher colleges have been integrated into the universities. Attempts have been made to upgrade their courses academically, while simultaneously introducing practically and professionally relevant elements into the studies for future Gymnasium teachers.

Instructors (Ausbilder) are in charge of inplant (workplace) training. They have to fulfil certain conditions before being considered. They must have completed their training in a particular trade, have relative professional experience and be at least 24 years of age. They must have background teaching knowledge in regard to work and vocational training, according to regulation. Training for recognized occupations conclude with examinations. Senior technical school teachers possess qualifications to teach at Gymnasien or schools providing vocational training. They could also have completed higher education studies in a scientific, technical or economics faculty and can offer several years

relevant professional experience (Bildung und Wissenschaft 1991d:20-22).

According to Glover and Marshall (1993:595), when young workers complete their formal training, they enter well-developed work-place systems. Teaching is an explicit, high-priority component of the training of foremen and other supervisors. Work is consciously organized as a learning system.

4.3.5.8 Conclusions

Cooperation and collaboration between schools and business and commerce (4.3.5) ensures a well diversified school system (4.3.4.1; 4.3.5.2). Vocational education has an effective accreditation system ensuring meaningful qualifications (4.3.5.3). Germans remain in education and training to the age of 18 or 19 years (4.3.5.3). There is a fine balance between theory and practice in apprenticeships (4.3.5.4). Career advisors assist students to find suitable apprentices from jobcentres. Employers choose and legally binding contracts are made. Firms offering training must follow regulations. Apprentices can later train further for mastership. High standards are maintained through an effective system of further education. This includes academic, in-service and other programmes. Information is well-circulated, especially in schools, so that youth are kept well-informed of all the options available to them (4.3.5.6). According to Cantor (1990:103-104) the bulk of the costs of training within the dual system is borne by the firms. Both the Federal and Länder governments spend more and more money in persuading industry to provide more training places, especially for youth who have been

disadvantaged. The availability of apprenticeship places have become limited with the conversion of firms in eastern Germany. Smaller firms are offered a bonus of DM5,000 for every additional training place offered. Of note is the ability and flexibility at various levels such as teacher training to adapt to changing circumstances. Attempts are made continuously to keep education, teaching and teacher training abreast with the new needs and demands of society.

4.3.6 Role of business and commerce

As is universally the case, the school in the FRG does not operate on its own in isolation. Its structure is influenced in many ways by the relationships it has with other social institutions, such as the state, the family, the teacher, the church, politics, and business and commerce (Dekker & Van Schalkwyk 1989:66-69). Of particular interest in this study is the latter. According to Glover and Marshall (1993:594-595), German firms are involved in the development of the teenage work force in a even clearer and more explicit way than in Japan. In the German apprenticeship system, youth from age 16 spend four days per week in an industry-devised, nationally approved occupational instruction programme, with an employer and one day at school. The structional training normally lasts for three years. The biggest and best firms like Siemans take part and actively recruit the best achievers. Included in the impressive counselling and guidance system, handled by the public employment service, are a variety of exploratory activities. These range from plant tours, job-shadowing experiences, and "sniffing apprenticeships", in which youths spend two weeks in a selected apprenticeship on a try out basis. Germans believe that vocational skills, knowledge,

and excellence determine the economic growth of a country (Dekker & Van Schalkwyk 1989:68).

Business is involved through the German Education Board (Deutsche Bildungsrat). They attend and are represented at central level. The Länder have committees to visit secondary schools (Gymnasien) to assess academic courses mainly to evaluate the relevancy of the education package. Dekker and Van Schalkwyk (1989:68) state that in most of the Länder "committees have been appointed to research the ways in which study at the Gymnasien prepares pupils for their future professions". Alternatives to tertiary education and changes to the education system relevant to commerce are looked at. Experts from the commercial world are enlisted which encourages the free flow of opinions. Dekker and Van Schalkwyk (1989:69) relate that in Nordrhein-Westfalen, unions (Gewerkschaften) and other independent employers' unions are allowed to sit in meetings of the school council (Schulkonferenz), which comprises of teachers, parents and pupils. Here they operate in an advisory capacity. Dekker and Van Schalkwyk (1989:68) point out that employers' unions have always participated in talks on school and educational policy, because it is in their interest that school leavers enter the labour market with the suitable skills and attitudes towards the world of work. The country's manpower requirements must be considered, but without commerce prescribing to education. Commerce, employers' and employees' unions are particularly interested in school-leavers from the Hauptschule, because vocational training links up with the programme there. To enhance the cooperation between commerce and the school, labour communities were established, which address problems in commerce related to the syllabus and school activities (Dekker & Van Schalkwyk

1989:68).

4.3.7 Conclusions

The high measure of success in the German economy and its education delivery (4.3.1) result from the close cooperation and consultation between the school and business (4.3.5.4). Ample representation exists for the latter in legislative and other significant bodies (4.3.6). They can make the necessary inputs in education. Unlike countries like Britain, vocational education and training is voluntarily supported financially by industry and business. They choose the apprentices at the local career centres, with career advisors to assist students with advice. Vocational guidance and placement is solely handled by the "Bundesanstalt für Arbeit" (4.3.6). No other agency is allowed by law. This ensures balance between the various partners. The individual's interests are given primacy. This cuts out the problem, experienced in South Africa (3.3.4.3), of a heavy reliance on school vocational guidance services. The problem with the latter is the vast number of teachers and guidance personnel who have no appreciation and understanding of market forces, economic matters, the real working world and the actual manpower needs of their country (3.3.7).

The dual system has its difficulties and drawbacks (4.3.3.5). Although very advanced, there is room for improvement. An interesting factor is the incorporation of the five eastern states and their education systems. With such ideological and structural differences, and the lack of resources in the east (4.3.3.6), much can be learned from how the advanced school to work linkage in the old Länder is carried over to those in the east.

4.4 THE FEDERAL REPUBLIC OF NIGERIA

4.4.1 Introduction

The question may be asked why Germany and Nigeria were chosen to compare with South Africa, the former being a First World developed and industrialized country, and the latter, a Third World developing and unindustrialized one. The present writer argues that they are suitable because South Africa is a unique country that has a combination of First and Third World conditions.

Both Germany and Nigeria have undergone structural changes. The new South Africa has embarked on federalism, which entails structural adjustments. Much can be learned from the unification of the two Germanies. South Africa is confronted with the same theme of nation building and unity as Nigeria because both have divergent ethnic groups and several different languages. Both are confronted with political instability and the need for economic growth. Both are large with extended borders and underdeveloped rural areas with high illiteracy. Both have the need for economic and social programmes. The new South Africa has embarked on RDP during 1994. According to Rimmer (1994:99), Nigeria embarked on an economic and political programme of structural adjustment in 1990. Although these were halted after 1993, they serve as lessons with regard to the RDP. McGowan (1993:50-52) states that Africa's second largest economy is Nigeria, which is described as a low growth one along with Chile and South Africa. Politically, Nigeria and South Africa have been the most troubled of a list of countries.

Nigeria has vastly different climatic conditions and it is culturally, ethnically and linguistically extremely diverse. Harber (1989:14) states that this is so marked that it is not surprising that so much emphasis is put on national unity and political development. According to Niemann and Van Tonder (1989:334), its economy is partly Third World and partly westernized. Various military leaders exploited education for political advantage (Harber 1989:14-16; Niemann & Van Tonder 1989:335). Osaghae (Address 1994.6.1) states that there is a measure of political instability. There is the threat of coup d'etats. Nigeria is a highly politicized country, where every issue is regarded from a political perspective. South Africa bears some similarity. Business enterprise is hardly existent. Hence, the state carries out most business activity and enterprise. This is the reason for conflict, because those excluded from the government power centre are excluded from business activity, economic growth, self-sufficiency and from virtually everything (Osaghae Address 1994.6.1). Okeem (1990:12) states that this is the case in many other African states. Like elsewhere in Africa, Nigerians tend to look to the government to create jobs and employment. They have mostly a consumer mentality and not a productive mentality.

Education is partly financed by the private sector, especially technical and vocational education (Niemann & Van Tonder 1989:336). A programme of non-formal education exists, supported by the federal government (Niemann & Van Tonder 1989:337). Despite various obstacles, Nigeria's education system is one of the best in Africa (Niemann & Van Tonder 1989:338). The Nigerian education system also fails to cope with the economic demands for technical manpower (Niemann & Van Tonder 1989:335). The present writer feels

this latter fact is of relevance to this dissertation. There are some parallels with South Africa. Nigeria experienced the problem of huge backlogs in education for the masses, and has attempted to address this and other related problems. Lessons could be learnt from the planning and launching of Nigeria's Universal Primary Education (UPE) programme. Of relevance is that the new South Africa has adopted a federal form of government similar to that of Nigeria. Nigeria also has the problem of perceptions towards academic education and examinations, and status and employment. According to Harber (1989:118-119), this is a common problem. In South Africa there are imbalances in approach towards academic education and technical/vocational education (1.1.2; 1.1.3) and an over-emphasis on academic subjects to the detriment of practical and technical subjects (3.3.4.1; 3.4.2). Another similarity is the issue of mother-tongue instruction. According to Akinnaso (1991:103-105), Nigeria has to reconcile the pedagogic need for mother-tongue instruction with the prohibitive costs of its implementation with 400 languages. The debate goes on, meanwhile English remains as the main language in education. Many feel the Nigerian languages are not rich enough to accommodate the vast complexity of theoretical formulations in modern science (Akinnaso 1991:99). Because of the above factors and the Nigerian approach to them, it provides an interesting case study for the link between the school and world of work.

4.4.2 Social and educational background

According to Osaghae (Address 1994.6.1), the population of Nigeria is about 100 million. Because of its diversity, it suffers from political instability. The three rival ethnic

groups play a strong role in politics. These are the Hausa-Fulani (over 14 million), the Yoruba (over 10 million) and the Ibo (over 10 million). Okeem (1990:11) describes Nigeria as a developing country with much diversity and political instability. According to Argus (16.8.1993), Nigeria is enmeshed in political uncertainty, with President Babangida delaying the return to civilian rule three times since 1985.

According to Corner (1984:236-238) and Osaghae (Address 1994.6.1), the boundaries of Nigeria were arbitrarily determined by European colonial powers. Many of these ethnic groups were divided by these borders and found themselves in different countries expected to adopt different identities. Many groups now within the borders had traditions with each other before the colonial era of warfare and oppression. Therefore the unity that Nigeria is trying to build is artificial. After this era disunity became more of a problem. Educational development worsened it, because educational provision was unequal. The spread of education made people aware of their opportunities and what was open or denied to them. Nigeria had a military coup in 1966 and a civil war in 1967. It ended in 1970 and military rule continued until 1979. The problem was more the rivalry between the three dominant groups rather than the extreme diversity. To reduce this the country was divided into 12 states in 1967 and further reorganized into 19 states in 1976 because of allegations of discrimination. A further problem arose in the 1970's with the high revenues from petroleum. This was collected and distributed to individual governments by the federal government. Some states' demands increased and there were demands for new states. In this regard cultural arguments have been mixed with economic

motives. This summarizes successive points. (Corner 1984:236-238; Osaghae Address 1994.6.1).

According to Niemann and Van Tonder (1989:312), and Falola (1985:12; 170), Nigeria, at one stage, had the fastest growing economy in the world with a growth rate of about seven % in 1960 and 10% in 1980. This could not be maintained because of the drop in oil production and delays in oil export. Progress was made in industry with the production of cement, chemicals and textiles. During the 1980's the economy suffered a number of setbacks because of insufficient electricity supplies. A number of power-cuts hindered production. Agriculture could not keep up with industry because of inadequate infrastructure, a number of droughts and the labour force concentrated on industry. Although petroleum production forms the backbone of the economy, there are also other natural resources such as wood (Niemann & Van Tonder 1989:312). Okeem (1990:11-12) describes these changes in circumstances as "the boom era" and "from doom to gloom". Falola (1985:170) states that Nigeria moved from a semi-peripheral, newly industrializing country to that of a peripheral country once again; dependent on foreign loans, food imports and vulnerable to external pressure and manipulation.

4.4.3 Administration and control of education

4.4.3.1 Introduction

Nigerians expect education to play a key role in developing a sense of unity. Therefore, during the 1970's and 1980's considerable investment was injected into education (Corner 1984:236; Okeem 1990:10-11).

4.4.3.2 Federal level

Each of the 19 federal states must handle its own primary and secondary education. Education control is administered by the Ministry of Education, which is responsible for the development of education throughout the federation. The Minister of Education is responsible for the formulation of national policies and the coordination of policy decisions coming from federal and state levels. The federal Ministry of Education is divided into four sections and units to make the administration of the ministry more efficient and streamlined. These are: administration and policy making, higher education, school and educational services, and inspection. Other educational bodies at federal level are: the Nigeria Council of Education Research, the National Manpower Board and the West African Examination Board. This summarizes successive points. (Niemann & Van Tonder 1989:315-317; Ozigi & Ocho 1981:98-104).

4.4.3.3 State level

The constitution provides for each state to have internal control of education. This includes financial responsibility for their own primary and secondary education and the power to establish and to close schools. Each of the 19 states are autonomous. Their budgets differ according to their requirements. Thus each state has its own style of education, administrative organisation and methods of achieving objectives. The Ministries of Education and their organisational structures differ, but there are some common features despite differences. The State Ministry of Education oversees all aspects of education, such as teacher-training, service conditions of staff,

administrative personnel and school buildings. Some of the responsibilities are delegated to other bodies such as the state's educational and school boards, local education authorities and school-governing boards. Certain duties are delegated by the State Ministries of Education to school governing boards, which are responsible for the educational affairs of secondary schools and teacher training colleges. Local school boards are responsible for primary schools and teachers. Both types are involved in appointments, transfers, promotions, discipline, leave, benefits, salaries and other conditions of service. This summarizes recurring points. (Niemann & Van Tonder 1989:318-320).

4.4.3.4 Local level

The duties performed by the local government boards are the same throughout Nigeria. Their responsibility is the development and administration of PE. Included are the provision of school equipment, the maintenance of school buildings and the administration of funds from state governments. These local education authorities, which perform specific duties, are overseen by a chief education officer assisted by a number of education officials (Niemann & Van Tonder 1989:320-321; Ozigi & Ocho 1981:98-104).

4.4.4 Nigerian general education

4.4.4.1 Introduction

The aim of Nigerian education is the integration of the individual in a healthy community and equal educational opportunities for all citizens (Harber 1989:16; Niemann & Van Tonder 1989:322). Akpe (1991:213) states that the

federal government has adopted education as an instrument par excellence for influencing national development.

4.4.4.2 Pre-primary education

Kindergarten, nursery or pre-primary schools are controlled privately, subject to the approval of the particular state's government. These schools differ from state to state in administration, subject contents, curricula and teaching methods. This is because the National Policy on Education (NPE) of 1977 makes no provision for the control of pre-primary schools by the ministeries. The federal government provides facilities for the training of pre-primary teachers. Because of the state's emphasis on UPE, there is hardly any funds for PPE (Niemann & Van Tonder 1989:322). According to Miller (1993:33-35), there is a need for ECE, especially with the realisation of its importance in educational progress. He admitted that in Nigeria and other developing countries, the infrastructure may not be developed enough and resources do not exist on a wide enough scale to sustain an effective ECE. Great numbers of children do not gain access to ECE, especially in rural areas. A similar situation exists in South Africa, especially amongst blacks, as pointed out in paragraph 3.3.2.2.

4.4.4.3 Primary education

According to Niemann and Van Tonder (1989:322-323), PE is for those between the ages of five and 13. According to the NPE, PE aims to prepare pupils for life and to give those with potential the chance to progress to the secondary level. Along with these objectives, the curriculum aims to assist the child in self-discovery, to build up healthy

relations with other pupils, promote individual and national efficiency at the economic level, promote effective citizenship, nurture awareness of national unity, encourage social and political maturity and create scientific and technological consciousness. Hence, the curriculum comprises mainly of arithmetic, reading, writing in English and a local language, civics, natural history, history, geology and arts and crafts. In effect, English and arithmetic are concentrated upon because of their importance in acquiring the primary school-leaving certificate. The principle of cultural differentiation is often violated, because of the pressure to maintain Western standards. Pupils do not always meet the requirements. School education is dominated with mechanical rote-learning, because the reproduction of knowledge for examinations becomes the norm rather than insight and application. This has become entrenched because promotion to the next standard takes place through internally administered examinations (Niemann & Van Tonder 1989:322-323).

In 1976 free PE was introduced, aimed at making the masses literate. The increase of school pupils was phenomenal. During 1983 about 83,5% of all children attended primary school with about 41% completing. Mother tongue instruction is applied from the first three years of school. After this English is the medium of instruction, in which a certain standard is required in order to proceed to the secondary level (Niemann & Van Tonder 1989:323-325; Ozigi & Ocho 1981:64-68). Those who do not proceed to secondary school are unsuitable for the world of work and many become the unemployed youth. In order to channel 100% of their pupils into secondary schools, five south-western states had abolished the system of external examinations since 1980

(Niemann & Van Tonder 1989:324). This may account for the low general pass rate for primary and secondary schools (Niemann & Van Tonder 1989:326). Ahimie (1987:195) describes the high number of unemployed youth in Nigeria and contends that unemployment arises mainly because of an imbalance between the output of the education system and the demand for labour. According to Haddad, Carnoy, Rinaldi and Omporn (1991:25), there are about 26% of six to 11-year-olds that are out of school.

Sunal (1989a:279-280) states that the UPE programme created a tremendous demand for teachers, which resulted in the hiring of many poorly qualified teachers. When UPE was first started some two million more children came to school than what was expected. Generally, Nigerians feel that there was some "watering down" of education to make it available to all children. Sunal (1989a:280) points out several problems associated with UPE. Enrolment was greatly under-estimated due to a poor data base for determining national population figures. UPE required major expenditure for the federal government. With the decline of oil revenues, available schooling became hard to maintain. There were lower enrolment rates in northern Moslem states. There UPE was viewed as a means to spread Western and Christian ideas among Moslems. The huge expansion caused a severe shortage of qualified teachers at primary level. However, Sunal, Osa, Gaba and Saleemi (1989b:30) concluded that, despite the many problems, quality education does occur in Nigerian primary schools. A cadre of trained teachers is developing and the potential for high-quality mass PE does exist.

With the emphasis on UPE and the priority of raising the level of literacy, the present writer concludes that PE does

set in motion the first step towards the link to the world of work by providing a foundation upon which to build. However, this link could not be sustained in Nigeria because the curriculum stresses aspects like fostering national unity, to the detriment of fostering awareness of productivity and entrepreneurship. A similar need was seen in the RSA (3.3.3.6; 3.3.4.2). Just as in South Africa, Nigeria has deficiencies in science and maths. Akpe (1991:214) traces this to the deficiency in the primary teacher education curriculum.

4.4.4.4 Secondary education

The secondary school cycle is split into junior and senior secondary school phases. The curriculums of both are supposed to put equal emphasis on both academic and pre-vocational subjects. Fees are levied and in large cities there are boarding facilities. English is the medium of instruction and differentiation is possible through enriching the syllabus with a variety of optional subjects. There is a large imbalance between the pupils in primary and secondary education (Akpe 1991:213; Niemann & Van Tonder 1989:325). This is because of the UPE programme and as Ahimie (1987:195) contends, a misallocation of education resources. Too much has been devoted to university education to the detriment of other sections of the education system. Too few resources were devoted to technical and vocational education. This imbalance has effected the standard of education. Niemann and Van Tonder (1989:326) cite statistics of the drop in the pass rate between 1975 and 1980. Niemann and Van Tonder (1989:320) indicate that a mere 15% of the potential number of pupils reach this stage.

According to Niemann and Van Tonder (1989:325-326), education has developed faster than other aspects in Nigeria. This is shown in the high unemployment rate of those who completed secondary education. This has caused a swing from Western academic education to that which is more vocational and technical. Hence, there are various types of secondary schools, namely, academic, technical and vocational, commerce and comprehensive schools. The present writer views this high rate of unemployment, despite certificates, as a result of various factors. It is firstly a combination of an economic and an educational problem. There is also the imbalance in expectations from education; what Harrison (1993:306-317) calls "the alienation machine", "failure from the cradle", "great expectations" and "the paper chase".

According to Ogundare (1991:155), studies highlight the need for citizenship education in Nigeria. In general, most pupils showed satisfactory citizenship behaviour in schools. Some schools view this as a major responsibility. A number of serious concerns have led to this, such as the erosion of values and attitudes, serious and continuing pressures on family life, increasing rates of juvenile crime and violence, all of which cause other social problems (Ogundare 1991:149).

4.4.4.5 Academic (Grammar) schools

Academic schools account for 75% of secondary pupils because they are seen as necessary for university training. The curriculum is dominated by the West Nigerian Certificate Examinations and classroom activities emphasize preparation for this. The Federal Ministry of Education determines

curricula, but the various state ministries can adapt to local needs. The junior secondary phase must include Maths, English, two Nigerian languages, General Science, Social Studies, Creative Arts, Religious Instruction and Physical Education. The secondary phase concentrates on academic instruction, with the final two years for specialising in particular subjects. The core subjects are English, one Nigerian language, Physics, Chemistry or Biology, History or Geography, and Agriculture or any other vocation oriented subject, depending on circumstances (Harber 1989:16-17; Niemann & Van Tonder 1989:326-327). Ahimie (1987:195) indicates that, of the four types of secondary schools (grammar, commercial, technical and comprehensive), the highest unemployment rate, 90%, was found among students of grammar schools (pure academic curriculum).

4.4.4.6 Other special schools

According to Niemann and Van Tonder (1989:328-329), private commercial schools offer vocation oriented courses. They are few in number, small and charge high fees. Private comprehensive schools offer partly vocation oriented courses and partly preparation for university entrance. They are highly selective and charge high fees, resulting in small pupil numbers.

According to Bergh (1993:469), a science secondary school project was introduced in three schools in the Kano state to boost indigenous manpower to cope with the oil boom. However, Bergh (1993:478) indicates that the intellectual abilities of pupils were not advanced enough and that it only identified those who could continue beyond science school. Hence, the decision to establish these schools was a

purely political and not an educational decision. One of the primary functions of these schools was, therefore, to recruit new members for the educated elite.

Urwick (1993:80-81) relates that the government and each region have some selected schools to carry out some programmes and projects. The idea is that it would be too impracticable and expensive to try in all schools. However, there is a tendency to overstaff small schools and there is a severe under-provision of educational materials in all schools. This applies in the area of textbooks and stationery in a situation where the authorities assumed responsibility for supply. These have implications for educational planning. The main change that was needed in resource allocation was a shift from teachers to educational materials. In order to rationalize the allocation of teachers and classrooms, it is necessary to insist that the smaller schools have consistent numbers of classes from one year to another. In larger schools, further savings could be effected by more widespread and planned use of shift systems. Generally, the double-shift system is acceptable to teachers and pupils because of the increased opportunities it offers for supplementary earnings and household tasks.

According to Miller (1993:32-33), there is a wide gap between principles and practice in the provision of education services for children. This is despite the clear directives and principles for the provision of education in the NPE, such as the right to education and the right to equality of opportunity.

4.4.5 Specific education and training

Hamilton and Asiedu (1993:349) explain that vocational education is introduced at secondary level with more specialized technical training offered in vocational schools. The major technical training institutions are the polytechnics and colleges of technology. Courses of study are from one to four years and include a variety of technical and commercial fields. Skilled craftsmen are prepared in vocational schools after nine years of general education. Diploma-level technicians train in polytechnics and colleges of technology in two-year programmes. Higher diploma technicians undergo four-year programmes with one year of industrial work experience (Hamilton & Asiedu 1993:349).

According to Ozigi and Ocho (1981:85), the private sector offers financial assistance to technical and vocational schools because of the need for technicians. Niemann and Van Tonder (1989:327-328) state that these schools are partly initiated by the state and the private sector and there are various types. The junior trade school, a popular technical school, requires a Primary School-leaving Certificate and has courses that last for two years. It allows for shortened apprenticeship or access to advanced pre-tertiary institutions. The senior technical school admits students with at least two years of post-primary training. They do not prepare for university entrance, but those who complete may proceed to a polytechnical college. After four years they may obtain the Nigerian National Technical Diploma. Courses may include Introductory technology, Agriculture, Home Economics and Commerce. The curriculum is combined with the academic schools' compulsory courses. Economics,

Business Economics, Accountancy, Typing, Shorthand and Home Economics are optional courses. Part-time evening classes as part of non-formal education are offered by various polytechnical and other colleges (Ozigi & Ocho 1981:86-88; Niemann & Van Tonder 1989:327-328).

According to Niemann and Van Tonder (1989:337-338), Nigeria also has established the provision of non-formal education. Adult education chiefly promotes literacy programmes. "Dropouts" are re-admitted to formal education via remedial programmes. Vocation oriented courses provide people with basic skills, enabling them to gain further technical training. Other programmes focus on various cultural events. The federal government promotes this education by coordinating certain programmes. Certain state departments are involved in planning and providing non-formal education. Other institutions, such as universities, voluntary organisations, missionary societies and youth organisations are also involved. Effort is made to upgrade scientific and technological education. The Centre for Comparative Studies introduced an optional syllabus in the natural sciences. The enriched syllabi required new methods in presentation. Emphasis was to be on pupil participation and to orientate pupils scientifically. Skill would be more important than mere factual knowledge. However, shortage of equipment and trained teachers aware of these methods became a problem. This is confirmed by Okeem (1990:12-13).

Some universities offer in-service training and UNESCO sponsors workshops for primary school teachers, to solve this problem. Some secondary schools offer advanced technological subjects like geometry, mechanical draughtsmanship, basic electronics and the applications of

electricity. However, these curriculum changes are limited because few schools are equipped to teach these subjects. The National Council for Educational Research and the universities are doing research on technological education. The former processes and distributes all their findings (Niemann & Van Tonder 1989:337-338).

It was doubtful that the curriculum was relevant to personpower needs. According to Europa (1988:764), the system was too academic, effectively catering for less than five % of the population. It was unsuitable for the remaining 95%. The Third National Plan made provision for a system of technical education designed to offer more areas of specialization and to ensure a comprehensive programme of technical education in the various categories of technical personpower needs. Problems still developed. The programme is costly. There is a lack of funds and resources like buildings, workshops, qualified teachers, instructional equipment and material. The diversified secondary education programme in Nigeria has been poorly implemented because the country has not attained the level of economic development necessary to sustain the prohibitive cost of curriculum diversification (Europa 1988:764).

4.4.6 Teacher training

Sunal (1989a:282) stresses that lower educated teachers will have to be given training, but INSET is not commonly available despite a national policy on education acquiring it. According to Esu (1991:189), Nigeria needs urgent action in teacher training, especially in meeting its personpower and societal needs. Output from colleges is impressive but not enough to keep pace with the rapid growth of school

enrolment. Because the usual process of teacher training is too slow and the number of qualified teacher trainers is insufficient, a solution used is INSET, such as sandwich courses and the Associateship Certificate in Education. However, Esu (1991:193) sees much of this is planned in response to crises in the system. It follows especially after many failures in the public examinations in certain subjects such as science, English and maths. Poor results often determine the needs of participants for INSET activities. Workshops, seminars or refresher courses are typical of INSET for primary and secondary school teachers. They are often planned by the state ministry of education and university education faculties. Esu (1991:196-197) sees a need to assess the needs of the participants, societal needs and the school instructional needs before embarking on INSET schemes for teachers. This would indicate what kind of teachers the country needs and for what purpose. Teachers should be involved in decision making about INSET, because such decisions will affect their practice and working conditions. He urges caution, as most Nigerian teachers do not possess expertise in programme planning.

Akpe (1991:213) has identified a marked imbalance in the choice of teaching subjects in favour of the humanities. No matter how good a curriculum might be, without competent teachers to implement it in the schools, the desired educational outcomes cannot be realised. Akpe (1991:214-218) points out the emphasis on science and technology in the New Education Policy. Hence, the teaching of science and pre-vocational subjects occupy a central position at all levels of the school system. The problem of teaching maths and science results from the poor attitude and motivation of teachers towards these. This appears to be a major

deficiency of the primary teacher education curriculum. To lay a solid foundation for scientific and technological education, primary school teachers are required who are competent in maths, basic science and technology. Colleges of education are unlikely to attract high quality of secondary school products in these subjects because of the inability of the system to attract the best students into the profession because of its poor reward system as compared to other professions (Akpe 1991:218).

Thousands of trained professional teachers roam the streets searching for positions. Hence, the government has encouraged the study of science and maths in schools and offered generous allowances to the teachers of these subjects. Today these teachers are more rapidly placed in positions than their arts counterparts. However, students still seem to choose their teaching subjects based upon their performance and interest and not for economical reasons. The failure to develop professional interest in teaching certain subjects stems from the mechanical way teacher education programmes are operated and the "materialistic value orientation of Nigerian society which stifles the development of interest in intrinsic values" (Akpe 1991:218).

According to Ozigi and Ocho (1981:88-93), a notable development in teacher education was the introduction of a five-year teacher training course for primary school-leavers (Grade II Teacher Programme), intended to raise the level of primary teachers' qualifications, increasing the output of grade II teachers and reducing the length of time needed for teachers to proceed from one level of training to another. UPE created a great increase in the enrolment of students

for this course. UPE would entail a vast number of teachers and this was aimed to cope with the shortage of primary school teachers. Several problems arose, including the selection of unsuitable candidates, resulting in low teacher morale, unsatisfactory standards of training and poor scholastic performance. It is also the cause of the high failure rate in Grade II teacher examinations. Okebukola and Jegede (1989:32-33) identified stress factors which take their toll on teachers. These include transport difficulties in getting to school, frequent power cuts during school hours, lack of resources for teaching, delays in promotion, poor attitude of pupils to work and having to teach large classes. The last two are the most stressful. Sunal et al (1989b:33) indicates that education is negatively affected by crowding, with typical class sizes of between 45 and 60 children.

Okebukola and Jegede (1989:33-34) point out the noise making non-classroom behaviour and the inability to reach out and interact with many pupils in class. The average teacher: student ratio of 1:60 is worsening as enrolment increases without concomitant growth in number of teachers due to a shortage of funds for paying teacher salaries. More than 50% of schools do not have electricity. The present writer feels that these factors affect the link between the school and work.

4.4.7 Role of business and commerce

According to Whawo (1993:223-224), Nigeria uses local craftsmen for productive and socially useful activities in the schools, with no special training provided. Skilled artisans are utilized as vocational instructors in secondary

schools in the Ebo and Delta states. In its selection of candidates for teacher training, Nigeria gives credit for such practical work experience. The government also has extensive policy consultations with business and industry, and with organizations representing other interested parties, especially women and science teachers. Osaghae (Address 1994.6.1) pointed out that the state is a major role player and stake holder in business enterprise in Nigeria. However, it emerges from Falola (1985:245-246), Harber (1989:121-124) and Rimmer (1994:102-104) that Nigeria is riddled with corruption and mismanagement in the state as well as the private sector. According to Alence (Address 1994.8.8), Nigeria is the capital of the "dash", that is, the system of bribery.

According to Ahimie (1987:196), many undeveloped economies have an important informal economy, which comprises of self-employed artisans who often use traditional skills. The informal sector in Nigeria has been neglected. The result is that many school-leavers view their education and certificates as exit visas from this sector and especially from agriculture. The major cause for unemployment is the mismatch between education and job opportunities. This results from irrelevant curriculum especially at secondary schools.

Enaohwo (1985:237) indicates that there is a positive connection between education and economic satisfaction. Enaohwo (1985:242) explains that to reduce the problem of the acute personpower shortage the Industrial Training Fund is used to mount training programmes to enable unemployed youth to acquire skills needed in the labour market. Industrial Development Centres provide consultancy and

extension services for owners and managers of small-scale enterprises to expand their businesses and thereby employ more skilled personnel. To enhance the productivity of training and educational institutions, Career Guidance and Employment Exchange units are promoted at universities, polytechnics and National Youth Service Corps offices throughout the country.

4.4.8 Contemporary problems and issues

According to Okeem (1990:10-11), in their determination to extend educational facilities in Nigeria, the government and education authorities have achieved much. Impressive statistics show growth in enrolment, output of students, supply of teachers and improved qualifications. This effort, the "boom era", is commendable in quantitative terms. In qualitative terms, this large scale education expansion caused many problems. UPE entailed a substantial increase in enrolment of primary school children. It has raised the levels of literacy and numeracy, and given other advantages. However, the speed with which the scheme was planned and launched led to many difficulties and problems. There was a shortage of classrooms and physical facilities, shortage of qualified teachers and shortage of equipment. There was the problem of the manner in which the scheme was planned and the unanticipated fluctuations in the country's economy (Harber 1989:121-124; Ozigi & Ocho 1981:121-122).

According to Okeem (1990:9), politicians continued to promise free education for all, but gloom set in when economies could no longer expand to absorb those graduating from the system. Thomas (1991:264) cites the problem of planners who base calculations on past data. For instance,

the social rate of return for primary schools from 1966 would be used, while the whole structure of employment has altered. Primary school-leavers can no longer expect to secure the same sorts of jobs that they could during the 1960's.

4.4.8.1 Quality of instruction

According to Thomas (1991:264), rapid expansion of PE can have negative consequences for quality and could be entirely self-defeating. Nigeria's attempt at UPE is an example of this. A long-term implication of UPE is the quality of instruction. Ozigi and Ocho (1981:122) and Harber (1989:120-122) mention the poor quality of candidates selected for grade II teacher training programmes, the inadequate preparation of many teacher trainees for teaching at primary level and the inadequate support given to children by many homes. The poor candidate, hurriedly and inadequately prepared to teach a class of 40, typically lacks discipline, dedication and professional competence. It is questionable the type of education his pupils will receive. Okeem (1990:34-35;41;46) talks of inadequate informal support for formal education, such as few libraries, trained staff, science laboratories and opportunities for further education. All these limit the scope and effect for intellectual and, eventually, national development. Okeem (1990:20) describes how some schools have taken delivery of Introductory Technology equipment but have not installed it separately or under the right conditions. Where they have done so, they may not have enough adequately trained staff to teach and familiarize pupils with the usage of the tools in order to make them competent when they leave school.

4.4.8.2 Role of parents and communities

The contribution of parents, communities, local authorities and private organizations are needed in order to ensure the government's objectives are achieved. The problem arose when the government, especially the federal government initially assumed the bulk of the financial responsibility for UPE. The Nigerian people tended to sit back and leave everything to them. The problem now is how to get parents and communities involved (Ozigi & Ocho 1981:123). Palmer (1993:35-36) found that in times of progress, schools grew, people were generous in projects and school fees came in. But in slumps, they were less generous and children from parents who could not pay fees were often excluded from school, thus increasing their children's learning difficulties. Examinations were highlighted - there was a keenness to work and pass. Failure meant exclusion from jobs in the modern sector and families depended on them to do well. Military coups caused a slump in progress. There is a link between political and economic instability and progress in education.

Okeem (1990:12) describes the common problem with many citizens of nonchalance over wider issues and a culture of silence. This has led to a "dependency syndrome and a consumption instead of a production culture" Okeem (1990:12). This has led to a search for techniques to get people to participate effectively in social and community affairs. Two major developments are Community Theatre and Mass Mobilization for Social Justice, Self Reliance and Economic Recovery (MAMSER). The latter is a campaign which aims to eradicate features of Nigerian behaviour in the past which have made its society "a byword for disharmony,

dishonesty, distrust and dis-service" (Okeem 1990:13).

4.4.8.3 Objectives of primary education and unemployment

One of the objectives of PE is "providing basic tools for further educational advancement, including preparation for the trades and crafts of society" (Ozigi & Ocho 1981:124). There is concern for this because there is doubt about the value of PE for the majority of pupils who will end their education at this stage, especially those in rural areas. It is questioned whether the knowledge and skills gained at school will benefit them and their communities. There are fears about frustrations and unfulfilled expectations of school-leavers and their parents, as well as for the economy growing fast enough to provide employment for the products of UPE. To the general public and official circles, the answer lies in returning them to the land (agriculture). This would provide jobs for most school-leavers. However, this is simplistic, as the traditional system of farming is economically unrewarding and physically strenuous. Many rural areas largely lack the basic modern amenities of life. Experiments in farm settlements have not been very successful. There will not be enough government jobs for all even if it does expand its services considerably. The private sector cannot absorb much more than a limited number of potential job-seekers (Ozigi & Ocho 1981:124-125). Falola (1985:134) talks of the political manipulation of the rural people. During the oil boom period rural skilled, semi-skilled and unskilled producers were attracted off the land. The neo-colonial education system continued to teach youth to abhor rural areas and to strive to stay in urban centres even as un-or underemployed persons. The lack of basic amenities and the drudgery of rural life increased the

desire of peasants to move their children to bright and attractive urban centres.

4.4.8.4 Access to secondary and higher education

This is an issue of great importance to all parts of Nigeria. There is much debate on providing equality of opportunity, because secondary and higher education is still a privilege for a few, a passport to employment, a social status symbol and a means to social and economic advancement. It is a reality that the federal governments cannot afford the cost of universal post-primary education. They no longer have the resources to provide free education at higher institutions of learning (Ozigi & Ocho 1981:125).

Harber (1989:125) points out that these schools are very authoritarian, with detailed rules covering all aspects of school organization. Physical punishment is administered freely. Lessons are teacher-centred with little pupil participation, resulting in more dependence and passivity rather than independence and self-discipline.

4.4.8.5 Tertiary education

Authorities have encountered problems in the system of student selection for post-primary education. It has been based mainly upon performance in common entrance examinations and factors such as the candidate's ethnic origin and his state of origin. The "quota system", which is an important political issue, is applied and each state has different selection formulas. Some argue that it negates the principle of merit and denies able candidates access to further education (Ozigi & Ocho 1981:126). There are

financial barriers to expanding education. Secondary and higher education is subsidised so heavily that it is virtually free. Nominal fees are set but parents are often not able to pay, so many students receive scholarships (Ozigi & Ocho 1981:126).

Urevbu (1993:227) indicates that past progress of vocational education has been disappointing. It is uncertain whether it actually promotes economic development any more than conventional school. Many Nigerians reject vocational training because they view the only path to good jobs would be found in an academic career. It is still the case that the best employment is found through academic learning. Those who fail to gain entry to academic secondary school (i.e. those of lower than average ability) are usually selected for vocational training. The social implication is that these trainees turn out to be the farmers, fishermen, miners and other direct producers. Urevbu (1993:228) concludes that the main reason for failure was the naivety of educational planners, who had thought that vocational education could be developed in isolation from the attractions of conventional academic education. This is shown in the attitudes of vocational students, many of whom plan to re-enter the academic stream at the earliest opportunity. Urevbu (1993:228) maintains that investment in vocational schools can be an expensive way of providing an alternative route for technical students to re-enter academic education. Urevbu (1993:228) points out the lack of jobs for technicians and those with practical skills. Building vocational schools does not create jobs for those who graduate from them. Educational changes will not make the economy grow faster to provide extra employment.

Urevbu (1993:228) states that the quality of instruction is poor. Good technical teachers are hard to find; many of the suitably qualified obtain better-paid work in commerce/industry. Training is often inappropriate to the job in view and unlikely to improve productivity. Training may be too specialised for jobs in the informal sector, where work often requires crude equipment and unorthodox skills to adapt materials and machines to a variety of uses. Employers in the formal sector may regard the training to be unsuitable. They usually prefer to recruit from academic schools and train to suit their specific requirements. These students are considered to be brighter than technical students. Hence, in many cases vocational schools can be regarded as centres of inappropriate technology and the considerable investment in technical equipment is largely wasted (Urevbu 1993:228).

Akinyemi (1993:178) confirms that neither practice nor policy is in line with Nigeria's development level. Facilities are inadequate and funding is low. It has been a mistake to import high technology to the detriment of developing indigenous technology to suit Nigeria's development. Teachers need to be resourceful in order to develop appropriate local technologies first and later to borrow and adapt technologies that are possible from developed countries. Ekpo (1991:36-42) questions whether knowledge stored in Nigerian universities is relevant to the development of the country. Poor teaching abounds in universities as well as primary and secondary schools. The reason is the lack of research in the universities and an imbalance in reasons for research. Probably many students research for promotion but at the top they stop, resulting in insufficient quantity and quality of research in Nigerian

universities. This is compounded by the lack of the dissemination of findings. This lack could be the result of the recent high costs of printing and paper. Besides the prohibitive cost, the quality of papers from Nigerian newsprint companies are not as good as would be expected. These and many other reasons militate against the establishment of journals in many Nigerian universities. A serious setback is the fact that local journals do not receive adequate support or recognition. There is the need for the universities to become better storehouses of knowledge; to collate, conserve and to propagate the best of African history, literature and social organization and culture. Researchers must ignore claims of many university people and evaluate what universities are actually doing Ekpo (1991:41-42).

4.4.9 Conclusions

The Nigerian education system is sufficiently decentralized to cater for a very large and diversified country (4.4.3). In the linkage between school and work, Nigeria rightly saw the need to increase the access and levels of basic education, hence the UPE programme (4.4.4.3). This would lay the foundation upon which to improve the relevance of education to the working world and the development needs of the country. However, this did not achieve the results expected (4.4.4.3; 4.4.8.1).

There are lessons in the problems encountered in the implementation of differentiation programmes and enrichment curricula. Lack of infrastructure and resources count against success in many ventures (4.4.4.6; 4.4.8). Albrecht (1992:41) describes the hindrances to efficiency and

organization. Settlements are scattered, transport facilities inadequate and communication difficult. These and other reasons make it "unproductive for the transmission of new knowledge" (Albrecht 1992:41), especially in rural areas. Mention is made in Harber (1989:121-122; 126) of the communication problem.

Much can be addressed and achieved in educational reform and provision when the government and educational authorities undertake a determined effort in programmes (4.2.7). Problems can be encountered if a government plans and launches huge educational programmes without careful planning and consideration of other factors such as costs, the possible fluctuations in the economy, social contributors like home/parent support, and the availability and level of teacher training (4.2.7; 4.4.4.3; 4.4.8.1). Lauglo and Lillis (1988:8) caution that political and educational leaders should exercise restraint in adopting and executing such huge programmes. This policy issue refuses to die because it is regarded as a remedy for youth unemployment. Jansen (1990:29) calls for African scholars to critically appraise the contextual relevance and explanatory power of externally-derived theories which have been fruitfully applied in advanced capitalist western states. Nigerian universities should become more relevant to the needs of the country (4.4.8.5). Indigenous technology should be developed first and "high tech" incorporated later (4.4.8.5).

It is clear to the present writer that the Nigerian government concentrated and invested too much in UPE to the detriment of other sectors of education, training and development (4.4.4.4). PPE is just as important because many

children would not benefit as they ought to without being school-ready. There was hardly any funds for this sector because of UPE (4.4.4.2). UPE and other programmes could not be sustained with economic and political instability (4.4.2). In the success of UPE and other programmes, the support of parents, their financial circumstances and home atmospheres are crucial social factors (4.4.8.2).

4.5 SUMMARY

This chapter has attempted to study the link between the school and work in Germany and Nigeria. It emerged that there is no perfect system and many education systems still struggle to achieve a better linkage between school and work. Having elements of First and Third World conditions and having just embarked on a federal form of government, South Africa bears similarities to Germany (First World) and Nigeria (Third World). South Africa can learn much from Germany's close linkage between school and work (dual system) (4.3.5.4), but must be wary of Nigeria's mistakes (4.4.8.1; 4.4.8.3). Many programmes are devised in order to solve the problem of youth unemployment. Rather, there should be greater emphasis on the early preparation of pupils for the world of work. Germany lays the firm foundation in PE (4.3.4.3), then has an effective secondary system with better retention, diversification and accreditation (4.3.5.2; 4.3.5.3). The German school system adequately prepares pupils for the world of work. The school system and the world of work complement each other. Good lines of communication exist between the two and the personpower needs of the country are well-known and adequately met (4.3.6). Lessons can be learnt from the pragmatic way Germans set about solving problems and how the

work and excellence ethic is built up (4.3.5.6). All these are sustainable through stability in the economic, political and social fields. New and unique problems emerged in the unification of the two Germanies. This presents new opportunities for education researchers (4.3.3.4).

It is difficult for many countries to achieve the level of cooperation and consultation between business and education as in the German dual system. It sets the right frame for business involvement in schooling (4.3.5.8). The Nigerian problems of school retention (4.4.4.3; 4.4.4.4), relevance of school/work programmes (4.4.4.3) and nationally recognised qualifications (4.4.4.5; 4.4.5) are relevant to this study because South Africa faces the same problems.

An essential component to the school/work linkage is foundation education (4.2.2). The awareness of this need, its funding and policy in South Africa are paramount to achieve a better school/work linkage. Many countries have recognised the importance of PPE. Because of factors like expense, different approaches are applied like playgroups and neighbourhood cooperative pre-schools (3.3.2.4). At this level children should gain as much educational stimulus as possible. The concept of failure should be avoided (4.3.4.2). South Africa has a huge backlog in this area and may benefit from international experience. The present writer would promote the setting up of neighbourhood preschools (3.3.2.4). Many parents may be put off by the high cost of modern nursery-school education or the lack of a quality school near the home. Some doubt whether their child is ready at the age of three or four. The neighbourhood cooperative preschool could provide information and curriculum ideas for other mothers to do the

same. The mother at home with her preschooler may experience many rewarding moments. In tune with him in these sensitive years both can learn much from each other. The child's first school experience will be easier if he has already worked and played with children his own age. He is able to relax when his mother leaves him in the care of another adult. Most children would gain a head start and benefit socially, physically and mentally. A group of five mothers and five children would be ideal. Each mother could take the group three mornings a week. This is not costly in tuition. Mothers gain free time, meaningful teaching and peace of mind. It would be a stepping stone between home and formal schooling. There are benefits for the group situation and benefits for families (4.2.2.4). Much more would be achieved in South Africa if self-employment and enterprise were made career options at school and the issue of relevance regarding subjects, content, emphases and programmes were fully addressed.

The next chapter will attempt to identify guidelines and recommendations for the integration of the school and the world of work in South Africa.

CHAPTER 5

GUIDELINES FOR THE INTEGRATION OF THE SCHOOL WITH THE WORLD OF WORK

5.1 INTRODUCTION

The purpose of the study is to examine the linkage between the school and the world of work in order to suggest guidelines for addressing this need in South Africa. Chapter two examined the economic function of the school and schooling in society. An investigation was made into economic systems and theories and how these affect the economic function of the school in its society. Chapter three gave an overview of the linkage of the school with the world of work in South Africa. In chapter four the linkage between the school and work in selected countries was examined. This chapter aims at recommending guidelines for the linkage between the school and the world of work in the light of the conclusions made in the proceeding chapters.

5.2 RESEARCH

With regard to curriculum changes to fulfil the need to make schooling more relevant to the working world (1.1.2; 3.3.6), research is needed in the following areas:

- how to make content in various subjects more relevant
- how to change the emphasis from academic to more practical knowledge
- where and how to change teacher training to bring it in line with the shift in emphasis.

With regard to wrong perceptions and expectations of education, especially of academic education (1.1.2), research should be conducted, and guidelines and methods sought in order to address this problem (4.4.7). The Sri Lankan experience shows how perceptions and expectations of education can hinder educational reforms and innovations (4.2.7). South Africa should avoid an outcome where generations develop, as in Nigeria, a "dependency syndrome and a consumption instead of a production culture" (Okeem 1990:12). The situation should be avoided, as in Nigeria, where there is an "almost total inability to implement policies efficiently and effectively, no matter how well-designed they may have been" (Okeem 1990:46). To avoid this problem in South Africa, research findings should be well disseminated down to the other levels of society. The lack of this was seen in the Sri Lankan experiment in Pre-vocational Studies (4.2.7), where principals and teachers failed to fully understand the philosophy of the educational programme. In view of this it is recommended that:

a) Ways should be found to make research findings reach policy-makers, implementers of policy (including teachers) and the general public (especially parents).

b) Pilot programmes should be well researched, planned and implemented for selected areas or schools. Aims and objectives should be achievable. From this position it should be gradually broadened depending on available resources, trained teachers and measure of success.

c) The national Ministry of Education should be responsible for coordinating research findings and their dissemination

down to provincial departments and other levels of society.

5.3 POLICY OPTIONS

5.3.1 The De Lange Report

Many of the findings and proposals of the De Lange Report are still relevant (3.2.1). For instance, education provision should take into consideration the manpower needs of the country (3.2.1.1). There should be a positive relationship between formal, non-formal and informal education. The processes of centralization and decentralization should be based on continuous research. Management and financing of education should be conducted by structures representing all societal players, including the private sector. In financing education for equality, backlogs should be addressed (3.2.1.2). These cannot be handled only by formal education. Hence, the education system should utilize adult and non-formal education (3.2.1.3). It is important to have sound language policies in order to provide effective education (3.2.1.4).

5.3.2 The Walters Report, ERS and CMSA

The proposals contained in the ERS and CMSA (3.2.2) are still relevant, especially regarding closer linkage between the school and work. Of note is the greater emphasis on vocational and vocationally oriented education in the school curriculum, and the introduction of new subjects like Economic Education and Technology. The present writer agrees with the Walters Report proposal on introducing subjects and content more relevant to the world of work. The subject Productivity should be introduced and entrepreneurship

should be encouraged. Since many of the findings of previous research studies such as the De Lange Report (3.2.1), Walters Report (3.2.2.1), ERS (3.2.2.2) and CMSA (3.2.2.3) are still relevant, it is recommended that they be considered in any future planning and strategies for education reform.

5.3.3 The NEPI Report

The strongest arguments against differentiation is that by providing differentiated education experiences for various children, we run the risk of offering an education that is better for some, but producing inequity for others. In a society such as South Africa, which has gross social inequalities, education differentiation tends to accentuate them. The strongest argument for education differentiation is that specialist skills require differentiation (of curriculum, institution and finance). Since such skills are said to be vital for an economy which aims to be competitive in world markets, education differentiation is said to be essential for development (NECC 1993a:21).

The NEPI systemic reports and background documents strongly suggest that to sustain a high-skill development path requires a strong state which has flexible bureaucracy and is open to civil society. A strong state could start vigorous social programmes without restraint from coalitions or compromise obligations with other political partners. In a strong civil society interest groups can press their claims and priorities. It is then possible to achieve government by consensus and vigorous social partnerships between the state, the unions and the corporate sector. Achievements also include: a clear economic growth path, an

efficient bureaucracy, a good-quality basic education system and consequently a high basic education attainment on which to build high skills (NECC 1993a:25). The effects of political and social instability were described in paragraph 3.5.6.1. It is thus recommended that:

a) Government be by consensus, with a clear economic growth path supported by an efficient bureaucracy. There should be a high basic education attainment upon which to build high skills.

b) Awareness of the economic growth path and how it relates to educational aims and provision should be well communicated to all levels of society. The mass media could be well utilized for this purpose with good effect.

5.3.4 ANC proposals

The RDP document (ANC 1994:2-7) sets out the rationale for the RDP. It has six basic principles:

- an integrated and sustainable programme
- a people-driven process
- peace and security for all
- nation-building
- link reconstruction and development, and
- democratisation of South Africa.

Its key programmes include: meeting basic needs, building the economy, democratising the state and society, implementing the RDP and developing human resources (ANC 1994:7).

With regard to the development of human resources, implementation will require new skills for new job opportunities. This will empower people, but an education and training programme is crucial. The RDP (ANC 1994:8-9) deals with education from PE to tertiary level. It involves child care to advanced scientific and technological training. Training would be in formal institutions and at the workplace. The underlying approach is that education and training should be available to all from the cradle to the grave. It takes a broad view of education and training, which does not only take place at school or college, but in all areas of society - homes, workplaces, public work programmes, youth programmes and in rural areas. Industries should be restructured to bring the country back into the world economy. This can only be done through extensive development of human resources. An arts and culture programme is a crucial component of developing human resources. It will help unlock the people's creativity, thus allowing for cultural diversity, a national culture and the allocation of adequate resources. The resource policy should aim at reversing youth marginalisation, empowering youth and allowing them to reach their full potential. Programmes for education, training and job creation will enable youth to play a full role in the reconstruction and development of society. The RDP (ANC 1994:15-18) stresses the need to meet basic needs. Included is a programme of affirmative action that must address the deliberate marginalisation from economic, political and social power of black people, women and rural communities. There are also jobs through public works and land reforms, housing and services, water and sanitation, energy and electricity (ANC 1994:18-23), telecommunications and transport (ANC 1994:34-35), and health care and nutrition (ANC 1994:41-45). The RDP (ANC

1994:62) proposes that within all education and training programmes, special attention must be given to the special interests of girls and women, especially those trapped in rural areas. Campaigns and information should open up a wider range of learning opportunities and choices for girls and women. They should be encouraged to enter non-traditional subjects such as maths and science. Simultaneously, special steps should be taken to fully recognise and value work and skills that are traditionally associated with women. Where possible these should be recognized within the NQF, which should be integrated. Learners must be enabled to progress to higher levels from any starting point. Recognition and credits for qualifications should be obtained from one part of the system to another. The system must enable assessment and recognition of prior learning, and skills acquired through experience.

In view of the RDP proposals it is recommended that:

- a) Education policy-makers, planners and implementers should also focus on broader issues, because social issues impact on the educational delivery system and consequently on the link between school and work (3.5.7).
- b) This link should be improved from within the educational sector, but can include outside influences in the form of special programmes (3.3.4.5).
- c) The circumstances of the disadvantaged and marginalized should be addressed first in the programme of affirmative action. Urgent needs and imbalances in education, especially PPE and PE, should be identified and rectified soon.

d) There should be campaigns and information drives to open up a wider range of learning opportunities for girls and women. This should be conducted in education institutions and by the media.

5.3.5 Conclusions

Thus it is recommended that:

a) Education planners and other education authorities, in their attempts to provide equal and free education for all, should be careful not to equate schooling with education (3.3.3.3; 4.4.3.3; 4.4.7.1; 4.4.7.3 & 4.4.8). Increasing the numbers of schools, classes, desks, teachers and resources will not automatically raise the standard of or access to education.

b) Care should be taken to balance quantities with quality of teaching and schooling. Lessons should be learned from Nigeria and other African countries. Okeem (1990:46) pointed out that "education cannot be equated to schooling, nor can possession of certificates be equated to knowledge and wisdom". Many of the ANC proposals are in line with addressing the problems and the needs of the country (3.2.2.5; 5.3.4). However, it remains a programme and the manner of its implementation is crucial.

c) There should be no undue haste in embarking on programmes without the proper circumspection and planning. This can spell failure as in the case of Nigeria's UPE programme (4.4.4.3) and Sri Lanka's Pre-vocational Studies (4.2.7). The success of Sri Lanka's Life Skills programme shows how success is achieved through correct implementation (4.2.7).

5.4 PRI-PRIMARY AND BASIC EDUCATION

5.4.1 Programme options

A major policy issue relates to the coordination of children's services. Two other major issues have emerged in the investigation of education policy. The first is the central role of women in ECE. The second relates to the tension between the need for parent and community participation in the control and management of educare services, and the need for a national development strategy (NECC 1993a:116-118). There is the question of a pre-school year for 5-year olds. The option of providing a one-year pre-school programme for all children prior to formal school entry, either within or linked to the schooling system, has attracted a great deal of support from the broader education field. According to NEPI (NECC 1993a:125-127), programme options for educare services for children from birth to six include full-day educare services and health and nutrition programmes. Up to one-third of urban and half of rural black children are undernourished. Therefore, almost all educare services for disadvantaged children require a health and nutrition component. Options include (NECC 1993a:125-127):

- feeding schemes, growth monitoring and medical checks
- food aid through food stamps or coupons, or tax relief on basic foodstuffs
- food gardens at educare centres involving families and communities, and
- health education for adults and children.

NEPI (NECC 1993a:128) indicates that partnership is one way of resolving the problem. The important task of mobilizing

financial resources would involve co-responsibility between the state, community and the private sector. Foreign aid could play a crucial role in the expansion of access to ECE programmes. Partnership is essential to promote community self-help. The trade union movement could also play a decisive role in securing more equitable resource allocation for ECE services. Options for increasing state revenue for ECE services include the redistribution of education spending, a state lottery, indirect taxation and repayment of student loans at the tertiary level (NECC 1993a:129).

The ECE curriculum arouses strong feelings. The most important issue underlying the various approaches is the development approach. It encourages active learning, is more likely to foster critical thinking and problem solving skills, and it prepares children for democratic participation (NECC 1993a:130).

Basic education begins with the sound foundation of school-readiness, which begins at pre-school level. Children who are school-ready tend to progress more smoothly and better (PE and further) than those who are not (3.3.2; 3.3.2.5). School-readiness is supported by NEPI (NECC 1993a:116-117), which states that ECE programmes improve scholastic performance. Evaluation studies conducted in industrialised and less developed countries have shown that programmes for young children can have a positive effect on school progress, represented by reduced repetition and drop-out rates, and on achievement in the early years of PE. Education provision at PPE and PE levels are major factors in the linkage between school and work (3.3.2.5). If huge numbers of children do not gain access to both, or if they do not receive basic education (especially literacy,

numeracy and other social skills), this affects the school to work linkage detrimentally (4.4.4.2). Cognisance is taken of German parent interest and support of ECE, the three types of facilities to cater for all in the system, the absence of the concept of failure and parent/teacher consultation (4.4.3.2). Consideration of the negative effects of huge backlogs in ECE in Nigeria and how this affects the pass rate at later stages (4.4.4.2), is made.

Since a third of urban and half of rural African children are undernourished, all educare services for disadvantaged children require a health and nutrition component. Central state involvement in policy development and the coordination of provision would optimize the use of resources across the field. If community participation were prioritized, it would probably be best effected through partnerships involving the relevant state departments, the community, the private sector and donor bodies. These should link with consultative and monitoring boards and the national curriculum board (NECC 1993a:30). The DWPET (Department of Education 1994:56) indicates that the Ministry of Education is committed to a new national initiative in ECE and that a range of options must be considered. These include school-based provision where appropriate staff and facilities exist, and suitably accredited community-based institutions which would receive a per capita subsidy.

5.4.2 Conclusions

In view of the above, the need for an awareness of the importance of PPE, the shortage of facilities and funding (3.3.2.3), its importance as a foundation for sound basic education and subsequently, its role in the linkage between

school and the working world (3.3.2.5), it proposed that:

a) It should become a major guideline to ensure there is sufficient awareness of the importance of pre-school programmes and primary school education. The mass media, including the electronic media, should be increasingly involved in awareness programmes. The private sector should be encouraged to form partnerships (4.2.2.4). A culture of high quality care for young children should be nurtured.

b) There should be sufficient access to such education for all children. The government and educational authorities should assist in its financial provision, while the private sector and community agencies should be encouraged to contribute.

c) To increase state revenues for educare services, there should be firstly a redistribution of education spending and secondly, tax and other incentives for business and industry to become increasingly involved. Interest and involvement in educare should become part of company policy, prestige and status with high public visibility.

d) Responsibility for its delivery should be shared between the government, private sector, businesses, parents and other agencies. Because of the costs of this supply of PPE facilities and teachers, alternative programmes such as day care, home care and playgroup should be utilized. Different kinds of facilities should be allowed to operate: school-based, community-based and alternative programmes should be made.

e) Educare programmes should form part of a comprehensive, multifaceted strategy designed to promote overall community development. This perspective accepts the need for community initiative, organization and participation in a range of interrelated activities which will enable the family and community, through their own efforts, to improve the quality of young children's life, health and learning opportunities.

f) All educare centres should operate with an educational component/programme that conforms to the requirements of some basic PPE curriculum. This could be determined by an inter-departmental committee or working group (Department of Education 1994:19).

g) A flexible bridging phase should be built into sub A, which each pupil receives for a minimum of six weeks and a maximum of a year. It should be based on a learner-centred, high-activity curriculum, with teacher-friendly school-readiness manuals and materials. There should be in-classroom support for teachers, which would amount to low-cost INSET for them. The bridging phase will not be adequate for pupils from severely disadvantaged backgrounds. These should be identified. Specialized pre-school programmes should be designed and run for them where most needed.

h) All educare services should have a nutrition and health care component, especially for the disadvantaged communities. The latter should be encouraged to cultivate food gardens involving families and communities. Overall, there should be feeding schemes, growth monitoring and medical checks.

5.5 PRIMARY EDUCATION

According to O'Dowd (1992:6), conventional wisdom and recent research show that expenditure on PE delivers the highest return on investment of any kind of social expenditure. The most urgent task is to make the PE system effective. Cognisance is taken of the German regard for PE as the solid foundation for all further education and training, the attempts to introduce work into subjects (Arbeitslehre) at this early stage (4.3.4.3) and the high level of access to PPE where most German children become school-ready (4.3.4.2). The huge Nigerian investment in UPE (4.4.3.2; 4.4.7) is also considered. Effective provision at this level is essential. The Nigerian UPE programme did not solve the unemployment problem (4.4.8.3) because there were weaknesses in the link with secondary education (4.4.4.4). PE is just the foundation for effective further education and training that could improve employment and development.

In view of the above and the huge backlogs in South Africa (3.3.3.3; 3.3.3.4), it is recommended that provision be concertedly extended so that all children gain access to PE. It is true that this cannot be achieved overnight, especially with financial restraints. Recognising Nigeria's experience with UPE, especially with the shortage of schoolplaces and resources (4.4.4.3; 4.4.8.3), it is recommended that inventive means be employed by utilizing unused or under-used buildings and facilities. In the case of acute lack of buildings and facilities, like in rural areas and some urban areas, the double-shift system should be employed. Classrooms and facilities can be used by one group in the morning and by another in the afternoon. As envisaged in the DWPET (Department of Education 1994:57), a

redistribution of resources should be conducted, based on a School Register of Needs, which would be constructed from a nation-wide audit of schools during 1994 and 1995.

In view of the problem described in paragraph 1.1.2, the primary function of the modern school (2.2.2), the school in industrialized societies (2.2.3), society in transition (2.2.3.1) and the need for innovation and improvement in PE (3.3.3.5, 3.3.3.6 & 3.4.4.4), it is recommended that:

a) Efforts should be made to make the curriculum more relevant to actual work situations. Subjects like Productivity should be introduced and entrepreneurship should be encouraged.

b) Teacher training must be upgraded to incorporate these subjects and approaches. The process would have to begin with the teachers and their training colleges. Subjects, curricula, methods and emphases must be changed.

c) Because bureaucracy may hinder innovations and training may be too slow, an effective INSET programme should be installed.

5.6 SECONDARY EDUCATION

5.6.1 The need for relevance

With regard to the need for greater relevance of the school programme in South Africa (1.1.2; 3.3.4.2), the need for effective CE (3.3.4.3) and the potential of special programmes (3.3.4.5), it is recommended that:

a) The curriculum should be made more relevant to the world of work. A vocational orientation should be introduced to subjects and the general school programme. The ERS (3.2.2.2), CMSA (3.2.2.3) and Walters Report (3.2.2.1) support these ideas. The content, presentation and emphasis of subjects should place a greater focus on economic matters and acquiring work-related skills.

b) Secondary schools should provide the opportunity to make pupils more career orientated, aware of, and better prepared for the working world. The correct attitudes towards work, productivity and entrepreneurship should be instilled, nurtured and promoted, so that pupils are able to benefit from tertiary and work (inplant) situations.

c) Because of the financial restrictions of diversification and curriculum reform of secondary education, space and scope should be given for different models and programmes to be introduced and for other agencies to be involved (3.3.4.5). Special programmes (3.3.4.5) should be implemented and encouraged because the marriage of formal, informal and non-formal education may prove to be difficult to achieve in the short term, especially within the South African context where adaptability to change has been hard, slow and difficult.

d) To address this curriculum reform, an effective CE should be offered at all secondary schools.

e) All relevant role players (government, education ministries, business, industry, private sector, etc.) should be involved in CE planning, curriculum and implementation. This could be achieved through sufficient representation in

decision making and opinion-forming bodies.

f) Career centres should be established and strategically placed to enable role players (business, industry, education departments, schools, pupils, etc.) to meet, liaise, organize and establish closer links between the school and the world of work. Information about careers, training courses, employment, apprenticeships and job placements could be found here.

g) The entrepreneurial spirit and productivity should be developed in both the subject content and the presentation of CE.

5.6.2 The need for diversification

Cognisance is made of the highly decentralized and diversified school system of Germany (4.3.3). Provision is made for diversity of school types at local level. Implementation of policy and administration has its advantages when there is enough decentralization to avoid a top heavy bureaucratic management that would hinder development and growth in certain areas. Many different school types cater for all kinds of education and training needs of the youth and of the country (4.3.4.1; 4.3.5.2). In view of the principle of differentiation, the emphasis on academic education in South Africa (3.3.4.1) and the above example of diversity of school types, it is recommended that:

a) There should be enough different school types to cater for the academic and training needs of the youth and the personpower needs of the economy. Cognisance must be taken

of what O'Dowd (1992:6) describes as the right balance to strive towards, that is, schools should not be turned into vocational training centres, or train for particular jobs, but should make it possible for people to be trained for a wide variety of jobs.

b) It should be an aim to gain greater participation in education from the private sector (4.3.5.2; 4.3.5.3; 4.4.4.3). It would be foolish to try to import the German system, but there is room to improve in this important link in South Africa.

c) Legislation should be made to protect the rights of the various role players involved (pupils, parents, business, etc.). Further research is needed in this area.

5.7 POST-SCHOOL EDUCATION AND TRAINING

An important function of schooling is to socialise pupils to understand work as a social phenomenon. Work is not only a means to earn a living. It involves individual development and fulfilment, cooperative interaction with others and the economic necessity for the community (2.2.2; 2.2.3; 2.6.8). An important component is the process of career decision making. It is done specifically by the student assisted by school counselling and CE. Decisions also emerge from part-time work experience and from work experience arranged by school or college. There are two major aims of career counselling: matching the pupil through tests and leading him to his own decision to a vocational identity through process oriented models (2.6.8). Cognisance is taken of the effective CE and counselling service given at German career centres (4.3.5.3) and the career information service

assisting schools (4.3.5.4).

There is much merit and advantage to retain youth for longer periods for education and training as seen in Germany. There is a vast range of options that German youth have because of the diversity of courses offered (4.3.5.2; 4.3.5.4; 4.3.5.6). Hence, in South Africa the PSE system should be broadened to be more inclusive. At present the school examination system gives far too much credence and emphasis on qualification for university entrance. NEPI (NECC 1993a:219) indicates that the future PSE system must contain a large and wide variety of PSE institutions.

According to NEPI (NECC 1993a:35), a major challenge is to develop a range of programmes that cater for diverse vocational needs, rather than only for those in formal employment. For this reason, vocational training must be coordinated by the state. There should be a national qualifications board or NQF (3.2.2.6) and financial provision. This does not mean that the state must provide or pay for all vocational training. NEPI (NECC 1993a:42) states that democracy must cultivate a healthy mistrust of blueprints. Policy is not a one-off event, a magical solution for all time, but an on-going contestation over the constraints and enablements which constitute an education system (NECC 1993a:42).

In view of these points, the need for improved CE and counselling in South Africa (3.3.4.3) and the avoidance of vocational education (3.4.2), it is recommended that:

a) Education departments should coordinate an effective CE and counselling service, which would allow input from all

role players (teachers, business, etc.). Funding should be shared between the state, business, private sector and the community (parents).

b) An effective national apprenticeship system should be instituted in which youth would be retained in education and training for longer instead of becoming merely school drop-outs and unemployed youth. The PSE system should be broadened to include a wide spectrum of training opportunities and facilities similar to the German system. The private sector should be encouraged to help finance this. Technical colleges and schools should be utilized for this.

c) Training opportunities and facilities should be broadened and encouraged in technical colleges, since they are ideally placed to find solutions to pressing manpower shortages and educational imbalances. They already offer essentially vocational courses (3.3.5.2). This would counter the inordinate emphasis on academic education (3.3.4.1).

d) The concept of further education should be introduced to broaden learning opportunities. This should include adult education, INSET, academic institutions, vocational training centres, libraries, theatres, retraining, radio and television. Further education in Germany strives towards the ethic of excellence (4.3.5.4). The DWPET (Department of Education 1994:10-11) calls for the broadening of learning opportunities and further education and training (Department of Education 1994:18).

5.8 ROLE OF BUSINESS AND INDUSTRY

5.8.1 Business involvement and entrepreneurship

Business and industry have a vital role to play (4.2.2.4). Without their cooperation, business and schooling will just be at cross-purposes to each other. The high measure of success in the German economy and its education delivery (4.3.1) is a result of the close cooperation and consultation between the school and business (4.3.5.4; 4.3.6). Weak or uncoordinated support from business and industry in education, as in the case of Nigeria (4.4.7), can spell failure to well-intended policies.

Pillay (1992:8) states that productivity studies lead to increased education of the labour force. This appears to explain the growth of output in developed and developing countries. According to Ryan (1994:15), the Japanese economy is built on thousands of small enterprises feeding the large corporations which are household names worldwide. Some companies are following this by unbundling noncritical parts of the business in an effort to create small, usually black-owned business satellites. Anglo American Corporation's Small Business Initiative, created seven years ago, has formed over 60 of these.

In view of the above points, the shortage of entrepreneurs, the need to encourage entrepreneurship (3.4.4.4), the advantages of business and school partnerships (3.4.4.5), and productivity (3.4.4.3), it is proposed that:

a) Schools should encourage entrepreneurship and productivity by conducting special programmes and

competitions which would foster an awareness of, teach and enhance these.

b) Schools should encourage business and professional involvement in education by allowing them regular visits to schools, where they could expose and demonstrate their skills to pupils. Business and industry should be encouraged to open themselves up to class visits on a regular basis so that pupils are exposed to the real conditions and atmospheres of the world of work.

c) Ways and means should be found to encourage business and industry to support vocational education and training voluntarily.

d) Career centres like in Germany should be established where career advisors could assist students with advice, help and other matters (4.3.5.3). Vocational guidance and placement could be handled here, especially for apprentices.

e) Less reliance should be placed on school vocational guidance services by having career centres, pupil visits to work places and visits to schools by professionals.

f) Well-planned and researched INSET programmes should be established to counter the problem of the vast number of teachers and guidance personnel who have no appreciation for and understanding of market forces, economic matters, the real world of work and the actual manpower needs of the country (1.1.2; 3.3.7).

g) Non-formal education should stress the importance of small enterprise and counter the perception that the state

must play the biggest role in enterprise. Less emphasis should be placed on academic education. More should be done at school level to nurture and develop practical subjects, productivity and entrepreneurship. The Nigerian situation should be avoided, where most of the enterprise is in the hands of state departments. Little incentive remains for individual enterprise. The children gain the perception that business is the state's domain and that it will supply all the jobs (4.4.6; 4.4.7.2).

h) Business participation in schooling should be encouraged through a system of incentives. This is done in Germany, where small firms gain a bonus for every extra training place they create (4.3.5.5). A culture of enterprise support should be developed. The ideal is to create partnerships between the federal governments and businesses in the funding of apprenticeships or of youth vocational education and training.

5.8.2 Adult basic education (ABE)

Initially, it seems that ABE has nothing to do with the problem topic of this study. It is the present writer's contention that a number of factors determine a country's quantity and quality of education provision and consequently the preparation of its youth for the world of work. ABE can improve the situation because home levels of literacy can influence the child's enrichment and support in education. According to NEPI (NECC 1993a:75), the former government saw no role for ABE in addressing the inequalities resulting from apartheid education, except in dealing with the "untrainability" of black workers who do not have an adequate education upon which to base training. The state

can be expected to maintain a night school system for adults, a "second chance " curriculum with school equivalency. This system will remain small and under-resourced if past trends continue. Differentiated provision involving the private sector and a range of other NGO's would continue under these conditions. In industry, examination reveals a range of different views amongst employers. Some regard ABE as the responsibility of the state and are therefore extremely reluctant to provide it for employers. Others support some form of provision of literacy to their employees insofar as they believe it is necessary to improve productivity.

In view of these points it is recommended that:

a) The state must be centrally involved in any large-scale strategy to combat illiteracy. There should be a national system of ABE based on clear standards for the different levels, to ensure equity and portability. ABE must link up with other education and training opportunities, and job-creation projects.

b) ABE courses must provide a general basic education needed for participation in society. The role of employers in providing resources and facilities for ABE should be part of a nationally determined framework, with ABE being regulated and coordinated by the state. A national system for training, paying and supporting ABE educators will be needed, for which the state would have a major responsibility.

c) There should be a national system of standards and certificates for ABE to facilitate mobility between the formal and non-formal education and training systems.

d) There should be an empowering and general education system which integrates academic and vocational skills. There should be a national accreditation and certification system for formal and non-formal education and training, which should allow flexible recognition of previous learning.

e) Employers should be responsible for providing ABE for workers, while the state should be responsible for providing ABE for the unemployed.

f) The central government should develop national policies and principles, and should be responsible for financing and developing a national curriculum. Regional and local authorities should be responsible for the administration and management of the process.

5.9 CURRICULA

5.9.1 Relevant curricula

Curricula should be made more relevant to the needs of business, industry and to South African conditions. It should encourage the awareness of economic trends. According to Dahwa (1986:29-30), the relevance of the curriculum is a problem found in most Third World countries. It not only includes the contents as they are formally taught in the school, but also the manner in which extra-curricula activities are organised. These should be harmonized to

reinforce each other so as to achieve a high level of relevance. It is thus recommended that:

a) The new system should aim to open up curriculum decision making to broader participation and to appropriate public accountability. Other proposals for curriculum development are made above (5.3; 5.5; 5.6).

5.9.2 A national core curriculum

According to NEPI (NECC 1993a:107-108), highly centralized curriculum decision making involves a standard curriculum developed centrally, with no regional or local variation. A national system of assessment and certification would further ensure standardization. Equity targets for the curriculum would be set and appraised centrally. The allocation of resources would be central. Commissioning, approval, provision and distribution of textbooks would take place centrally. Highly decentralized curriculum decision making involves a curriculum developed at regional and local level, and school-based curriculum development would be encouraged. There would be no standardized curriculum. Regional assessment and certification would encourage curriculum diversity. Equity targets would be set and appraised regionally (NECC 1993a:107-108). This curriculum would promote regional and local participation in curriculum decision making, accommodate diversity and allow for high levels of teacher involvement in curriculum decision making and curriculum development (NECC 1993a:108).

In the light of the problem posed (1.1.2), the school in industrialized society (2.2.3), society in transition (2.2.3.1), work related activities of school and college

(2.6.5), the need for general work skills, work-specific skills and business concepts (3.3.4.2), and the above points, it is recommended that:

a) The post-apartheid curriculum should aim to build a common citizenship from the previously fragmented one.

b) The aim should be to achieve greater openness and participation in curriculum decision making.

c) Structures and procedures should be established for involving major interest groups in society in curriculum development and decision making.

d) Policies should be developed which would systematically increase teacher participation in curriculum decision making and development.

e) There should be measures to ensure quality and accountability in the curriculum. This should be systematically developed, along with procedures for the evaluation and review of the curriculum.

f) Commonality and diversity should be maintained. It is a major policy challenge to develop a common curriculum which addresses issues of diversity appropriate to education.

g) Ways should be found to increase the importance and prestige of vocational subjects in the perceptions of learners and the general public. The curriculum should allow for more general work skills, work-specific skills and business concepts.

5.10 TEACHER TRAINING

5.10.1 Awareness of the world of work

According to Sunter (1994:81-82), a number of myths exist in our society, such as "a good education guarantees you a job". The worlds of education and work are totally out of "sync" with one another. There is no awareness in the teaching and educational fraternity of the revolution in the structure of the labour market. Educators are shaping the education system according to how it ought to be and not as it is. The market system is not going to change for the education system. It must be the other way round. Internationally, about 95% of all jobs are being created by the informal sector and small business (Sunter 1994:82). Education and business will have to move much closer to "avoid the incredible mismatch" (Sunter 1994:83). School must stop educating for employees and "encourage to be employers" (Sunter 1994:83). Phillips (1992:12) calls for greater self-reliance and for more people with commercial and entrepreneurial skills to meet the needs of a growing service sector. Student teachers should be made aware of the manpower needs of the country. Pupils should be actively prepared for the working world and not just to pass examinations. There is a shortage of entrepreneurs in South Africa (3.3.4.6) and an over-emphasis on academic achievement and academic subjects in the RSA (3.3.4.2).

According to Birke (1991:17-18), pupils generally have a lack of understanding of science. That which they do have is seen as non-science. Most of those who have some understanding avoid science because they feel it is not for them. Access to science will not improve if people do not

want to take the courses. There is a need for the scientific community to stress the benefits of science, because there is a credibility gap. People are put off because they cannot identify with scientists. Phillips (1992:12) states that there must be more people with higher education in maths and science as a basis for a sound understanding of technology.

In the light of the above points, it is recommended that:

a) It is vital that teachers become facilitators. They should participate in teacher training programmes and should adopt a new approach to learning in the classroom (3.3.7). There should be greater pupil empowerment, with initiative, creativity and risk-taking as key elements.

b) There should be a move away from the tendency to choose the humanities. More incentives should be given to attract pupils and students to maths, science and technology. Bursaries and scholarships should be more easily available for study in these subjects. This should be the case also for teacher training, posts and promotion.

c) The perception towards science should be addressed. The scientific community should stress the benefits of science to learners and the general public through the mass media, conferences, campaigns, projects, competitions and workshops.

d) The teacher training programme should be central when planning and implementing huge educational programmes such as Nigeria's UPE programme (4.4.4.3) and Sri Lanka's Pre-vocational Studies (4.2.7).

e) Massive education programmes should not be started without serious consideration of all the factors. There should be adequate consultation to ensure that all role players (teachers, business, parents, etc.) understand and execute their roles (consultation, liaison, interest, moral and material support, etc.). It is not a matter of merely improving statistics such as the numbers of schools, classrooms and teachers. The quality of teaching and parent/home support are also crucial (4.4.4.3; 4.2.7).

f) In teacher training courses, adequate provision should be made to incorporate content and methods of teaching subjects with a view to the real working world. This means that there should be an ongoing assessment of the personpower needs and the training requirements of the country.

g) Teachers should be introduced to the need to develop and enhance enterprise, the entrepreneurial spirit and the importance of productivity in pupils. Guidance teachers in particular should be made aware of the importance of self-enterprise and the entrepreneur, and that training and awareness of these can be nurtured in the school.

h) There should be better interaction between the business world and the schooling system. Companies should visit schools to talk about technical careers.

i) All teachers need not come via teacher training colleges. Instructors may teach in certain courses as long as they fulfil certain conditions laid down in regulations. One important feature of this is practical experience (4.3.5; 4.3.5.6).

j) A national certification system must be established by the state. It should allow for mobility between educational and training institutions.

k) The image of technical colleges needs to be improved. They should not be seen to cater for lesser able students. They should get better staff. Mass media campaigns should be used to promote technical education and to improve the image of technically trained people.

l) Teacher qualifications and training should be addressed because teachers often go through the system without experiencing the world of work. Colleges should ensure that teachers are better informed about career options for pupils. Teachers choosing hard options such as maths, science and physics should get higher salaries and more rapid promotion than other teachers.

m) Radical alternatives should be considered for the shortage of qualified teachers. There could be a system hinging on a limited number of specialist teachers working together with assistant-teachers.

5.11 SUMMARY

This study attempted to address a problem in South African schooling in which many pupils are not adequately prepared for the world of work. The shortage of schooled and skilled workers was cited in paragraph 1.1.1. Also discussed were the high drop-out rate, the high illiteracy rate, the high unemployment rate, skills and qualifications not relevant enough to actual work needs (1.1.2), and others.

Foundation education (PPE, child care, etc.) is very important, because it is a crucial factor and need in the linkage between school and work. It is an important aspect of education and should not be neglected. It sets the foundation for all education and training that follows. It ensures success in primary school and hence further (3.3.2.5). Although Dahwa (1986:179-180) states the same, his warning should be heeded: that the expansion and increased effectiveness of PE will heighten the demand for and the capacity to receive secondary education. This problem was seen in Nigeria, where there was much frustration when secondary education could not accommodate the huge increase resulting from UPE (4.4.7.4).

The full implementation of compulsory education is crucial because access is not extended to all, resulting in great losses in human potential and resources (1.1.2). The effective school to work link cannot be achieved in such a situation. Outside school factors such as political, economic and social instability and depravity, should be addressed as they affect the school to work linkage (3.5.7; 3.6.1). A system should be evolved to bring private enterprise and the corporate sector into greater involvement in education (5.8.1 b, c & h). Curriculum changes and subjects should include the promotion of productivity, enterprise and entrepreneurship. New approaches, methodologies and emphases should be developed to encourage these and to promote greater pupil involvement in the learning activity (5.9.2 c & g). Referring to the general tendency in Africa, Dahwa (1986:181) asserts that although school-leavers pass examinations, they do not have the life and work view which the "foreigners have and which lie at the root of the foreigners' economic entrepreneurship".

There should be early preparation for the world of work, instead of having to devise programmes for school-leavers in danger of being unemployed. At this point it is too late and it results in much wastage in retraining and the bringing up of youth to the necessary literacy and numeracy levels. Instead, the foundations of training should be started early in foundation education (i.e. PPE & PE) (3.3.2.5).

An awareness of the world of work and the post-school situation should be promoted in teacher training courses (3.3.7). Instructor training should be taken very seriously, as it is done in Germany (4.3.5.7), as much depends on it. All the resources and facilities can count for nothing without the proper level of instructing.

The final chapter deals with final conclusions, new perspectives and guidelines for future research.

CHAPTER 6

FINAL CONCLUSIONS, NEW PERSPECTIVES AND GUIDELINES FOR FUTURE RESEARCH

6.1 INTRODUCTION

This dissertation has aimed at providing guidelines for the integration of the school with the world of work. The writer has conducted a literature study, attended relevant lectures (addresses) and had informal interviews with educators, educationists and pupils. In this chapter the main conclusions to the foregoing study are drawn in the light of the research problem set forth in paragraph 1.2. New perspectives in the linkage between the school and work are highlighted and finally, guidelines are suggested for future research.

6.2 FINAL CONCLUSIONS

The final conclusions to the study are formulated on the basis of the subdivisions of the broad problem as phrased in paragraph 1.2:

a) From early times each community has recognised the need to educate its youth and prepare them to be useful citizens (2.2.1). Although there are various theories of how the school should function in society, they mostly aim to serve the citizens of society and to contribute to increased productivity (2.2.2). In some societies the school turns out for the good of the bureaucracy instead of for the masses.

Hence, the prevailing economic theory in a country determines the actualising of its schooling (2.2.4; 2.2.7).

The preparation of youth for the world of work underwent changes as the nature of work and society has changed. During Roman times craftsmen gained their skills mostly through family apprenticeship. The pupil would learn by example instead of deliberate instruction. During the Middle Ages apprenticeship and manual labour were built into Christianity and the preservation of learning. From the 1880's the idea of combining trade and academic education in the school took root. In England there were the workhouse schools and schools of industry. In America corporation schools developed as industrialisation continued. The Industrial Revolution led to large factories which caused changed production methods. Increased urbanization and organised labour called for educated workforces which inturn led to the present school systems and compulsory education (2.2.1).

In industrialized societies it is socially accepted that each member of the community should work at an acceptable activity that benefits the community and himself. Society is continually changing. Education is regarded as a key to economic survival. Because of the technological changes, new skills need to be developed in schools. The school as a socialization agency should socialize pupils to the world of work (2.2.3). The requirements of industry and the Information Age should also be catered for in the school programme (2.2.5). Criticism from de-schoolers like Illich and others indicate that many schools have lost track with modern trends and demands (2.2.6). Schools should lay the foundation for further vocational education and training

(2.2.5).

b) Prior to 27 April 1994 the education system in South Africa was characterised by fragmentation and inequality (3.2). Generally, the school failed to prepare large numbers of pupils, especially blacks, for the world of work (3.2) because of factors such as racial discrimination, political, social and economic instability (3.5.1; 3.5.6.1), and shortages of qualified teachers and facilities (3.3.7). Productivity and entrepreneurship were not encouraged enough and in many cases were virtually absent (3.2.2.1; 3.3.4.4; 3.4.4.6). Much was to be desired of school guidance programmes which did not reach all pupils in all schools (3.3.4.3).

c) Previous recommendations were made to improve the linkage between school and work in the White Paper on Education 1983, the De Lange Report (3.2.1), the Walters Report (3.2.2.1), the ERS (3.2.2.2) and the CMSA (3.2.2.3). These recommendations have not been fully implemented because of apartheid fragmentation and political, social and economic instability (3.6.3).

d) Technikons (3.3.5.3) and Technical Colleges (3.3.5.2) provide a bridge between the school and the world of work to a certain extent. This needs to be improved. Pupils should be encouraged to enter these institutions. Less emphasis should be placed on academic and university education (3.7). There is a need for bodies which would improve the linkage between these institutions and business/industry (3.4.4.1).

e) The German "dual system" allows for effective preparation of pupils for the world of work through large scale

apprenticeship (4.3.5.4). Community-based employment centres provide effective advice on careers, apprenticeship and employment opportunities for pupils. They also provide effective links with schools for business and industry (4.3.5.8).

The Nigerian education system provides a window to study problems and concerns similar to those in South Africa (4.4.1; 4.4.8.3; 4.4.8.5). Although education is regarded as the key to economic survival, merely increasing quantity, such as in the Nigerian UPE programme, could result in failure. The quality of education is important (4.4.8.1). Nigeria also exhibits a need to encourage productivity and entrepreneurial skills and attitudes in its schools, because there is the problem of the educated unemployed (4.4.7; 4.4.8.2).

6.3 NEW PERSPECTIVES

South Africa has undergone change in many areas and is still undergoing change. There is increased citizen involvement and participation in social affairs. Increased democracy is permeating society. This presents new challenges and opportunities for education and schooling. Innovations in school curricula and programmes must include consideration of the multicultural and multilingual nature of society as well as the needs and demands of the real working world in South Africa (3.7).

Previous research findings should be considered in any huge scale education policy changes and implementation (5.3.1; 5.3.2). Massive education programmes should not be started before there is serious consideration of all the factors and

role players (5.10.1.e) There should be less stress on academic education and university entry (5.7.c). More stress should be placed upon technical and vocational education and training (5.10.1.b). There should be less stress on examinations and qualifications (acquiring of certificates). Schooling should not be for the sake of education and certificates alone but for its utility value. Youth should gain marketable skills that are needed in a fast changing and technological society (5.3.5.b). A NQF should recognise prior learning and avoid the duplication of training (3.2.2.6; 5.7; 5.8.2.d). Teacher training should include an awareness of the demands of the Information Age and the job market. Teachers should be trained to encourage productivity and entrepreneurial skills and attitudes (5.10.1.f; 5.10.1.g).

6.4 GUIDELINES FOR FUTURE RESEARCH

In the linkage between the school and the world of work a number of areas could be researched. These are enumerated as follows:

a) Research is needed to determine the reasons for and the extent of the perception in South Africa that only academic qualifications ensure employment.

b) Research is necessary to determine how to counter the notion that academic education is always superior to technical and vocational education and training.

c) Research is necessary to determine how pervasive is examinations in South African society as the only means for assessing learning and determining promotion to the next

standard or stage.

d) Research is necessary to determine what is the most suitable career guidance agency for South African pupils. Should the school remain the sole guidance agency, or should the agency be community-based, or industry-based, or a combination of all three?

e) Research should be done to determine how productivity and entrepreneurship can be effectively incorporated into the school curriculum to promote these attitudes in general.

f) With regard to e), teacher training is crucial. Teacher training programmes should be researched to ensure that teachers be kept abreast of the latest developments, job markets and needed skills.

g) With regard to f), research should be conducted into INSET programmes to inform and equip in-service teachers, especially guidance teachers, with the necessary knowledge and skills to encourage productivity and entrepreneurial skills.

h) With regard to recommendation 5.6.2.c, research is necessary in the area of legislation needed to protect the rights of all role players involved in apprenticeship and partnerships between the school and business/industry.

6.5 IN CONCLUSION

It is in the area of encouraging awareness of productivity and entrepreneurship in the classroom that the linkage between the school and the world of work can be improved.

Part of the school's purpose is lost if it becomes totally withdrawn from the real working world. The relevance of the school is questionable if there is a large-scale problem of the educated unemployed. It has emerged in this study that several factors determine the extent of the linkage between the school and the working world. Preparation for the world of work does not begin at secondary school but starts at pre-school; each stage builds the foundation for the following stage. In order to achieve economic survival, there should be an awareness at each stage that the world of work is an important element of reality.

It is hoped that this research study, findings and recommendations will contribute towards the improvement of South African schooling in order that it may carry out its mandate, especially to adequately prepare pupils for the world of work so that they may take their rightful place in society.

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