THE IMPACT OF CURRICULUM TRANSFORMATION ON CLASSROOM PRACTICE IN NORTHERN CAPE SCHOOLS

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TO WHOM IT MAY CONCERN

This is to certify that I have in my personal capacity, edited the Ph.D. thesis of **Ms Michelle Ishmail**, and can to the best of my knowledge declare it free from grammatical errors.

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Michelle Ingrid Ishmail
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DEDICATION

This work is dedicated to the children of the Northern Cape. May their potential indeed be tapped, today, tomorrow and always.

And

My late grandparents, Arthur Daniels, Lily Daniels and Helena Snyders.

ABSTRACT

The purpose of this study is to establish the impact of curriculum transformation on classroom practice in Northern Cape schools, given the fact that the curriculum is deemed to be the vehicle which will ensure that all South Africans, have the necessary knowledge, values, skills and attitudes, which will facilitate social and personal development and economic growth, as well as strengthen the country's democracy.

A historical overview of the rationale for curriculum transformation is provided, highlighting the features of the education system prior to the first democratic elections. In addition, the various curriculum policy options pre-1994 is outlined, in an attempt to gain an understanding of the origins of the outcomes-based curriculum.

It emerges that most of the proposals put on the table, favoured an integration of education and training, as well as the promotion of high levels of skills, needed for economic growth in the country.

Curriculum 2005, which endorsed the ideas of an integrated approach to education and training, and which emphasised life-long learning, was unveiled in May 1997, for implementation in 1998.

Given the inequities of the past, it could be expected that teachers would find difficulty in implementing the new curriculum. Developments after implementation is traced, and the study provides a comparison of the design features of the original version of C2005 and the Revised National Curriculum Statement, which is being phased in incrementally.

The study also provides an account of the current learning and teaching situation in schools in the country, by illustrating the findings of various
research studies. These studies reveal that classroom practice is still characteristic of activities which do not promote higher order thinking skills, such as investigation, understanding relationships and curiosity, lack of lesson structure and lesson material prepared in graded sequence, and physical conditions in schools leaves much to be desired.

Given the situation outlined above, the research investigated key factors which are required to improve classroom practice. These factors included; the dissemination of the curriculum, the quality of transactions between teachers and learners in the current teaching situation, methodologies currently used, provision and use of resources and contextual realities at system and school level.

During the study, key stakeholders, namely, learning area managers, teachers and learners completed questionnaires on the above mentioned aspects. Principals and representatives from School Governing Bodies responded to questions during interviews.

In conclusion, findings emanating from the literature study, as well as the empirical research is presented. Based on these findings, a practice-orientated curriculum implementation strategy, focusing on classroom practice, is recommended, taking the contextual realities of the system into account.

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CHAPTER 1

ANALYSIS OF THE THEME, EXPLANATION OF THE CONCEPTS AND METHODOLOGICAL ACCOUNTABILITY

1.1   Introduction and problem statement

The ushering in of the new democracy brought with it, not only the restructuring and reshaping of the fragmented, divisive education system of the past, into a single national ministry of education and training, but also the development and implementation of a policy framework which aims to provide for the redress of past inequalities and the provision of equitable, high quality and relevant education (Diphofa, Vinjevold and Taylor 1999:2).

Central to this policy framework, is curriculum transformation which was, very early on, believed to play a crucial role in eroding the education system of the legacy of dogmatism, racism and outmoded teaching practices (African National Congress (ANC):1994:11).

Curriculum 2005 was therefore introduced in May 1997, which according to the Department of Education (2001(a):14), is guided by the principles of outcomes-based education, learner- centred education and the critical and developmental outcomes which inform teaching and learning.

In addition, the National Qualifications Framework (NQF) was introduced to provide for the registration of national standards and qualifications, based on learning programmes with clearly stated outcomes (Geyser 2000:23). The Department of Education (2001:14) asserts that the NQF not only promotes seamless learning, encompassing Early Childhood Development (ECD), General Education and Training (GET), Adult Basic Education and Training (ABET), Further Education and Training (FET) and Higher Education (HE), but also seeks to bring together

education and training, knowledge and skills, as well as personal, social and economic development, which are critical to the South African democracy, as well as the preparation of citizens for meaningful participation in the world economy. These are all elements which are prevalent in the White Paper on Education and Training, which according to Van Wyk and Mothata (1998:3) was the first policy document to usher in the new era in education and training.

The Department of Education (2001(a):17) points out that the learner-centred approach to the curriculum goes beyond ensuring that learners achieve the desired outcomes. It involves them as participants in curriculum development and learning responds to their learning styles and cultures, as well as builds on their life experiences and needs. It also encourages continuous formative assessment, for which learners and teachers accept responsibility and which promotes continuous learning and enables the assessment of competences and complex performances.

At the time, C2005 called for progressive new approaches to designing learning programmes, teaching methodology, power relations and assessment. In effect, it redefined the roles of teachers, learners, school managers, the use of text-books and the format of examinations (Department of Education 2001(a):17).

The question, however, arises: how prepared are teachers, schools and the system at large for these radical changes, if it is widely agreed that the teacher training conditions in the past left much to be desired and that the doctrine of Fundamental Pedagogics used in these institutions, had a detrimental effect on the South African teachers' thinking and classroom practice? The National Education Policy Investigation (NEPI) (1992:17), amongst others, claims that fundamental pedagogics prevented teachers from *"developing an understanding of the relationship between education and the context in which knowledge and understanding are created"* and Enslin (1990:83) asserts that *"fundamental pedagogics justified authoritarian practices and silenced teachers as only those with the qualified science to speak".*

Vinjevold and Taylor (1999:160) further elaborate on problems currently encountered by teachers. They contend that, although many teachers, especially those in under-resourced schools, embrace the intentions of C2005, there is a gap between attitudes towards the new ideas and the ability to put them into classroom practice. Jansen (1999(a):149) agrees and is also of the opinion *"that the changing demands placed on educators is too ambitious, as it represents a conceptual leap of staggering proportions from outcomes to dramatic changes in social relations".*

There has also been a wide range of criticism from teachers, who claim that they were not consulted in developing the curriculum. They also say that learning, teaching and support material is insufficient and inadequate, training has been inappropriate and terminology too complex.

The Department of Education (2001(a):18) has, however, acknowledged these concerns and commissioned a review of C2005, which gave rise to a streamlined and strengthened curriculum. This Revised National Curriculum Statement (RNCS) is currently being phased in incrementally from 2004.

1.2 Analysis of the theme

Given the quality of teacher training in the past and the problems regarding the implementation of C2005, even though it was streamlined and strengthened as indicated above, it is not surprising that implementation of the curriculum still poses a dilemma. Classroom practice still seems to be characteristic of teacher talk and reflects an absence of activities which promote higher thinking skills, such as investigation, understanding relationships and curiosity and a lack of lesson structure and lesson material, prepared in graded sequence as illustrated by Vinjevold and Taylor (1999:131-161).

In addition, the contextual realities in which the curriculum is unfolding is also deemed problematic. Kruss (1998:104) claims that the curriculum is being implemented without sufficient regard to financial and organizational capacity of provinces to implement effectively. There can, however, be no turning back, as the curriculum in particular, is deemed to be the vehicle, which will ensure that the country's democracy, human dignity, equality and social justice is supported and maintained. In the Department of Education's *"Implementation Plan for Tirisano"*, the Minister of Education, Professor Kader Asmal (2001:iii), urges that, despite the problems of the past, the ultimate goals must remain in clear focus. The curriculum must be implemented effectively to ensure that all South Africans have the knowledge, values and skills required to facilitate social and personal development and economic growth, which in effect will strengthen democracy, the people and the nation.

The best possible suggestions and solutions should, therefore, be sought to facilitate effective curriculum delivery and enhance classroom practice.

1.3   Explanation of concepts

The following terms have been used in the introduction and will constantly be used in the text that follows:

1.3.1 Curriculum

Carl (1995:31) refers to Sönghe (1997:38), who says that the word *"curriculum"* is derived from the Latin root *"curro"* meaning *"I run"*. Carl (1995:31) explains that, when reference is made to the educational track on which learners move on the way to adulthood, it can be co-ordinated with *"curro"*.

Marks, J.R., Stoops, E. and King-Stoops, J. (1978:457) describe the curriculum as *"….the sum total of the means by which a student is guided in attaining the intellectual and moral discipline requisite to the role of an intelligent citizen in a free society…."*. They also contend that it is not merely a course of study, nor does it only list goals or objectives, but encompasses all the learning experiences which learners have under the guidance of the school.

Loucks-Horsley, Hewson, Loue and Stiles (1998:65) give further clarity and refer to the National Research Council (1996) which sees the curriculum as the way the content is designed and delivered. It includes the structure, organization, balance and presentation of the content in the classroom.

For Tanner and Tanner (1975:48-49) the curriculum is *"… The planned and guided learning experiences, formulated through the systematic reconstruction of knowledge and experience, under the auspices of the school for the learner's continuous and willful growth in personal-social competence"*.

The ANC's discussion document, A Policy Framework for Education and Training (1994:10), is of the opinion that:

> **"The curriculum is understood to be**
> *more than teaching and learning*
> *that takes place in learning institutions"*

Gultig, Hoadley and Jansen (2002:29) say that the definition was later expanded to include a statement of aims, objectives, content, strategies for teaching and learning and evaluation.

1.3.2 <u>Transformation</u>

In an address to a summit of higher education, held on the 29-30 July 1996, the first Minister of Education in the new democracy, Professor S.M.E. Bengu, referred to transformation as a process which occurs at two levels, namely, at systemic level and at institutional level.

Professor Bengu explained that at systemic level, proposed policy changes are discussed with major stakeholders before a public hearing is scheduled and later the decision is taken to cabinet before legislation is put into place.
Institutional transformation was explained as being the responsibility of the institutions themselves, under the supervision of government. Each institution, therefore, needs to have a clear programme of transformation, that deals both with how policy decisions around transformation will be arrived at and how they will be implemented.

A committee of Technikon principals of the same summit view transformation as:

> *"transformation entails the democratic*
> *and peaceful process whereby all the*
> *relevant stakeholders meaningfully*
> *contribute to the creation of a learning*
> *and teaching environment that is*
> *conducive to the successful offering*
> *of a career focused education and*
> *also meets the needs of the learners,*
> *employers and other stakeholders*
> *and benefits the particular communities*
> *at large and the country as a whole".*

For students at the summit, transformation is *"the democratization of governance structures and policy formulation, equality of access to education in line with the Reconstruction and Development Programme's principles of life-long learning, human resource development and the transformation of curriculum research to be relevant to the needs of our society".*

In Paulo Freire's letters to post independent Guinea Bissau (1978:15), in Pedagogy of the Oppressed the transformation in an education system entails the following:

> *"In transforming the educational system inherited from the colonizers, one of the necessary tasks is the training of new groups of teachers and the retraining of old ones. Among these teachers and especially those who perceive to be captured by the old ideology and who consciously continue to embrace it, they will fall into the practice of undermining, either a hidden or in an open practice way the new practice. From such persons one cannot hope for any positive action towards the reconstruction of society. But there will be others, who perceiving themselves to be captive to the old ideology, will nonetheless attempt to free themselves from it through the new practice to which they will adhere".*

1.3.3 Outcomes-based education

Kudlas (1994:32), Spady and Marshall (1994:1) and Kramer (1999:31) say that OBE is a process that focuses on what is to be learned, which is the outcome. They define an outcome as a demonstration of learning.

Geyser (2000:23) provides a much more detailed definition. She quotes from the Department of Education (1997(a):12) and describes the concept *"outcomes"* as *"the specification of what learners are able to do at the end of a learning experience"*. She furthermore explains that according to the Report of the Ministerial Committee for Development Work on the NQF (1996:24), the concept *"based"* as in outcomes based means *"to define direct, derive, determine, focus and organize what we do according to the substance and nature of the learning result that we want to happen at the end of the learning process"*.

Furthermore, a pamphlet issued by the Department of Education (2002(a):2) after gazetting the RNCS, says OBE is:

- *"Aimed at the achievement of high levels of knowledge, skills and values through the setting of high standards.*
- *Based on realizing the full potential of each learner as a citizen of a democratic South African.*
- *Reliant on caring and competent teachers dedicated to teaching.*
- *A learner-centred, activity-based approach to learning and teaching.*
- *Oriented to South African conditions.*

- *An approach that is common across
  the world.*

- *A unique blend of knowledge, skills
  and values drawn from South Africa,
  Africa and the world".*

The Department of Education (2002(a):2) also states that OBE considers the
process of learning as important as the content. Both the process and the content of
education are emphasised by spelling out the outcomes to be achieved at the end of
the process.

1.3.4 <u>Teacher</u>

Van den Aardweg and Van den Aardweg (1998:225), Fraser, Loubser and van Rooy
(1990:14-15) and Duminy, Dreyer and Steyn (1994:5) refer to the teacher by making
use of the term "*educator*". They agree that teachers are persons who are
professionally and didactically trained and who are qualified in terms of their
respective subjects, to carry out educative teaching.

For Beeby (1986:37), *"teachers are the front line troops of change and progress
depends on their own education and motivation and freedom to innovate".*

1.3.5 <u>Teaching</u>

Söhnge and Dreckmeyer (1981:3) say that the concept *"teaching"* is derived from a
Sankrit root *"dic"* which means to *"show"*. In a didactic sense it implies *"to show by
way of instruction".* Kruger, Oberholzer, Van Schalkwyk and White (1983:15)
believe that teaching can be explained by the use of the concept *"reveal".* The
teacher reveals certain concepts of reality or draws attention to them so that the
learner can take cognizance of them.

According to Gunter (1978:10), teaching is an activity by which *"….a human being is taught by another person to do things".* Teaching is, therefore concerned with assisting a learner to acquire knowledge and skills and is not a one-sided activity in which only the teacher is active, while the learner is passive. On the contrary, teaching is an activity in which both teacher and learner have an active part to play and are essentially active in the process.

1.3.6   Learner

A learner is a child or adolescent who needs to be educated. Van den Aardweg and Van den Aardweg (1998:71) assert that a learner cannot actualize his or her own potential unaided. A learner is dependent on the teacher for assistance, in experiencing, becoming, involved in and attributing meaning to his or her life world.

1.3.7   Learning

Fraser, et.al. (1990:3) assert that learning and teaching are inseparably linked. They describe learning as an activity in which the person being taught, actively wishes to benefit from the teaching. Hence, educative intervention must be deliberate and purposeful and it must be guided by certain norms. This intervention, Botha and Van Niekerk (1990:5) contend, implies action on the part of the teacher and the teacher's behaviour should show either approval or disapproval of the learner's action.

Le Roux, Munnik and Reeler (1988:22) say that for successful learning to take place, both the teacher and learner must become inextricably involved in a relationship. There must be a mutual relationship of trust, understanding and authority. In such a relationship, both the educator and the learner receive freedom, faith and self-confidence to venture into the world and learn.

For Loucks-Horsley et.al. (1998:28), learning is a process in which learners construct their own knowledge. They say that, when learners try to understand new information, they use their existing knowledge and their own style of learning. The process involves the construction of links between new ideas and what learners already know to create meaning.

1.3.8 <u>Classroom practice</u>

Classroom practice is referred to by Loucks-Horsley, et.al. (1998:32) as the practice of teaching. To them, classroom practice encompasses deep flexible knowledge and the ability to apply knowledge about learners, the content to be taught, the curriculum, methodologies, assessment and the school and local communities.

Loucks-Horsley et.al. (1998:32-33) charge that, in effect, classroom practice entails effective teaching, where teachers understand the nature of learning, pose challenging tasks, encourage students to articulate their ideas, set goals for instruction, create appropriate contexts for classroom activities and pose problems that have relevance and meaning to their learners.

For Hoadley and Jansen (2002:5), the South African curriculum has changed significantly in the post apartheid era. In common with trends worldwide, three most significant changes have produced:

- *"a curriculum which emphasizes integrated teaching in which subjects are combined into learning areas and taught thematically*
- *a focus on the competence demonstrated by learners at the end process of learning, rather than on subject expertise*
- *an emphasis on knowledge learners bring to the class, on everyday knowledge, and on relevance to everyday life of the knowledge taught".*

1.4   Problem formulation

Despite the efforts undertaken by central government to review and strengthen C2005, as well as after increased support and guidance had been given, by the Northern Cape Education Department, to facilitate effective curriculum implementation, it seems as if teachers are still ill-equipped to manage classroom practice effectively.

The situation is however, not surprising, given their teacher training in the past, as well as the conditions in which they operative. Although short term solutions cannot be found, an effective practice-orientated curriculum implementation strategy needs to be sought to equip teachers with the necessary skills to enhance classroom practice.

In essence the problems which will be investigated in this study, pertains to factors which still currently affect classroom practice, therefore questions will be answered with regard to:

- the dissemination of the curriculum
- the quality of transactions between teacher and learner
- methodologies currently used
- provision and use of resources
- contextual realities at system and school level

1.5   Methods of researching the problem

A descriptive and qualitative mode of study will be used. Reference will be made to primary sources, such as books, official documentation in the form policy documents and education gazettes. The literature study will also include an evaluation of secondary sources, such as dissertations, newspaper articles and journal articles.

A representative sample of 25 principals, 25 representatives of school governing body members, 50 teachers and 200 learners from a selection of 104 high schools across the ex-Education Departments in the Northern Cape, will be chosen through random sampling. Thirty-two learning area managers who support teachers in the Northern Cape Education Department, will also from part of the sample.

An instrument in a form of a questionnaire, which is both qualitative and quantative will be completed by learning area managers, teachers and learners. Personal interviews will be conducted with school governing body members and principals.

1.6   Objectives of the study

The purpose of this study is to establish the impact of curriculum transformation on classroom practice in Northern Cape schools, given the fact that the curriculum is deemed to be the vehicle which will ensure that all South Africans, have the knowledge skills and attitudes which will facilitate social and personal development growth, as well as strengthen the country's democracy

The research will therefore seek to:

- Examine curriculum dissemination.
- Assess the current learning and teaching situation, with regard to the quality of transactions between the teachers and learner.
- Examine which methodologies are currently being used.
- Probe the provision and use of resources.
- Determine the contextual realities at system and school level.
- Provide possible suggestions and solutions which could be included in a programme to facilitate effective curriculum implementation.

1.7 **Programme Announcement**

Chapter 1:   Analysis of the theme, explanation of concepts
                    and methodological accountability.

Chapter 2:   Historical orientating introduction of the rationale
                    for curriculum transformation in South Africa.

Chapter3:   An outline of the structure and design of
                    Curriculum 2005 and developments after implementation.

Chapter 4:   The current learning and teaching situation in
                    South African schools.

Chapter 5:   The administration of the data obtained from the
                    questionnaires and interviews and an inter-pretation
                    of the results.

Chapter 6:   Suggestions and recommendations for curriculum
                    implementation which will enhance classroom practice.

1.8 **Conclusion**

An exposition of the problem, statement of the problem and the objectives of the study were given in this chapter. The method of research was explained and certain relevant concepts were explained. Finally, the further course of the study was set out.

CHAPTER 2

HISTORICAL ORIENTATING INTRODUCTION TO THE RATIONALE FOR CURRICULUM TRANSFORMATION IN SOUTH AFRICA

2.1   Introduction

Chapter two seeks to provide an overview of the educational landscape in the country prior to 1994. It gives attention to policy options before the first democratic elections and provides an overview of the rationale for curriculum transformation.

South Africa's first democratic election was a watershed in the country's educational history. In the first instance, it signalled a move away from policy being determined by a white minority state to a black majority, secondly, official state education policy, which was historically geared towards building a united white nation, was now re-oriented to redressing inequalities and nation-building between black and white and thirdly, instead of being predicated on exclusion and denial of rights, social, political and educational policy became based on the principles of inclusion, equity and social justice (Chisholm 1998:50).

With the transition to democracy, these changes have found expression in specific policies and legislation. The most significant of these policies are perhaps, the publications, of the African National Congress: (ANC), namely: A Policy Framework for Education and Training and the "preparing to govern manual", An Implementation Plan for Education and Training. These early documents clearly espouse a vision of an integrated and training system, premised on the idea of life-long learning (Kraak 1999:34).

Chisholm (1998:59) points out that the ANC position and priority incorporates the vision of life-long learning, the provision of quality education and the integration of education and training.

She furthermore explains, that the vision was pioneered from within the Congress of South African Trade Unions (COSATU) and draws on both new international trends attempting to harness educational reform to changing global economic conditions, new forms of specialization and on radical traditions, which have historically challenged the division between mental and manual labour, academic and vocational education and training and between conception and execution as underlining social, political and economic divisions. This idea is clearly articulated in the ANC Policy Framework, as it argues that:

> *"The separation of education and training*
> *has contributed significantly to the situation*
> *where most of our people are under-educated,*
> *under-skilled and under-prepared for full*
> *participation in social, economic and social life"*
> (ANC 1994:17).

The ANC Policy Framework also sets out the following goals:

> *"all individuals should have access to life-long*
> *education and training irrespective of race,*
> *class, gender, creed or age.*
> *The pursuit of national reconstruction and*
> *development transforming the institutions*
> *of society in the interest of all and enabling*
> *the social, cultural economic and political*
> *empowerment of all citizens"* (ANC 1994:10).

Key to the ANC Policy Framework, is that it considered the development of the new curriculum as the vehicle which would bring about the changes set out above. It argues that:

> *"the reconstruction of the new curriculum for*
> *schooling and for other contexts will be essential*
> *in order to rid the education and training system*
> *of racism, dogmatism and outmoded teaching*
> *practices". (ANC 1994:10).*

Chisholm (1998:60) affirms this notion. She says that curriculum is at the heart of enhancing access and breaking down historical divisions between academic and vocational. She also argues that the concept of a unified and flexible competency, outcomes-based modularised curriculum, indeed informed the ANC/COSATU and new national education policy.

2.2   Features of the system prior to 1994 and shortly thereafter

At the time, South African education was characterised by a uniform and inflexible policy environment. The apartheid state, in effect, managed a centralised curriculum policy system which was described by many as racist, Eurocentric, authoritarian, prescriptive discriminatory and context-blind (Jansen 1999(a):4).

Clearly, the system was not serving the needs of the majority of learners in the country. Van Wyk and Mothata (1998:1), quoting from the Department of Education (1998:5), confirm that the old education system catered for passive learners, was driven by examinations, entailed the regurgitation of facts and was characterised by a prescriptive syllabus that was content-based and broken down into convenient compartments or subjects.

Moreover, the approach to learning took place against a backdrop of inflexible time-frames and learners, as well as the public at large, were not encouraged to comment or contribute to the process of curriculum development. They are also of the opinion that the elements critical to a successful, modern education system, were completely absent from the agenda.

The situation resulted in what Kraak (1999:24) refers to as, *"a highly persuasive and influential education and training policy, which emerged in the policy formulation process after the unbanning of the ANC in February 1990".*

He does, however, make mention of the *"Peoples Education"* discourse, which represented a radical alternative to *"Bantu Education"* which had been imposed by the apartheid state since the mid-1950's, but points out that this discourse was replaced by a less radical and more reformist systemic discourse, with the shift in the political climate from a period of revolutionary struggle in the 1980's, to a period of negotiation and political compromise in the 1990s. The continuities which exist between the two discourses are their common demand for a single non-racial national system of education and training, the dilution of the deep historical divisions between mental and manual labour, as well as the division between education and training.

Kraak (1999:24-25), furthermore, contends that the systemic discourse or debates of the 1990's was associated with the following central tendencies:

- It focused on the structural characteristics of the system, for example, its institutional forms, the extent of internal differentiation, the form and social consequences of particular certification processes adopted and the particulation between its sub-systems.

- It also concerned itself with the distribution of power between state, market and education and training institutions, as well as the broader social structure, for example, the articulation of education and training system with the economy, labour market and occupational structure.

- It delved into the social relations which underpin the forms of differentiation, articulation and certification which emerge within the education and training system and between it and other social structures, such as the economy and the labour market.

- It had a political predilection towards the creation of a unified education and training system, primarily as a response to the pressures of globalisation, the massification of the education and training system and the emergence of few forms of knowledge production.

- It argued that an education and training system should be held together by a distinctive regulatory framework, which is advocated by most education and training systemic discourses which have emerged world-wide.

He goes on to explain that this systemic discourse specifically advocated a single national qualifications framework, which would replace the highly differentiated and divisive qualifications structure which characterised the then education system and which served to accentuate social inequalities as well as inhibit life-long learning.

To gain an understanding of the urgency to bring about change, key features of the education and training system before 1994 and shortly thereafter will be outlined.

2.2.1 <u>Low progression, low participation</u>

The majority of students attended the least adequately funded schools with the lowest teacher qualifications, poorest facilities and highest class sizes. Christie (1998:112) says that the system could be characterised as a relatively low participation, high selection system of comparatively poor quality for the majority of students. Although the situation seemed to improve after 1994, there are currently still high drop out and repeater rates, particularly in black schools. About 1,5 million children were out of school and there were high levels of adult illiteracy and under-education which are indicators of low participation. The senior secondary examinations failed large numbers of students and racial differences were stark.

The common pattern over the years reflected that approximately 95% of white candidates achieved a senior certificate as opposed to the African figure which was consistently less than 50%, sometimes closer to 40%. Urban-rural disparities further distort the system. On the one hand, Senior Certificate results were better in urban areas and the homeland urban schools and on the other hand, there were shortages of secondary schools and technical training opportunities in rural areas. Christie (1998:112) also says that as far as curriculum matters were concerned, there was an over-emphasis on humanities and social sciences and an under-emphasis on mathematics and physical science.

The situation has not improved much, even though the ANC led government is in its third term of office. In a discussion paper on the status of participation and performance in Physical Science and Mathematics education in the country, Mphahlele (2002:3) points out a decline in learner participation in the Senior Certificate since 1997, as well as the status and participation of learners in Mathematics and Physcial science. Table 2.1 reflects the decline in learner participation as in the Senior Certificate Examination (Department of Education 2003(c):8).

Table 2.1   **Learner enrolment for the Senior Certificate since 1997**

YEAR	ENROLMENT
1997	559 000
1998	552 862
1999	511 474
2000	489 941
2001	448 371
2002	443 765
2003	440 096

Mphahlele (2002:3) says that with the exception of Mpumalanga with its fluctuating student enrolments, the national decline is matched in every province.

Table 2.2   **Senior Certificate performance since 1998**

YEAR	PASSED	WITH ENDORSEMENT	WITHOUT ENDORSEMENT
1998	49,3%	12,6%	36,7%
1999	48,9%	12,5%	36,4%
2000	57,9%	14,1%	43,9%
2001	61,7%	15,1%	46,6%
2002	68,9%	16,9%	52,0%
2003	73,3%	18,6%	54,6%

Although one could be overly impressed with the results as reflected in Table 2.2, extracted from the same report mentioned earlier, analysis of the results reveals a disturbing trend. The analysis reveal that the improvement in results is, in fact, in the number of school leaving certificates rather than those with endorsement.

In terms of learner participation in Mathematics and Science, the analysis reveals a much more troubled situation. There is not only a declining enrolment in higher grades, Mathematics and Physical Science, but also no dramatic improvement in higher grade performance in the two subjects (Mphahlele 2002:4).

Table 2.3 reflects the performance of learners in the Senior Certificate differentiated according to higher grade and standard grade (Mphahlele 2002:5).

Table 2.3   Senior Certificate performance differentiated according to higher and standard grade

NO OF CANDI-ATES X 1000	GR	1997 559,0			1998 552,8			1999 511,0			2000 489,9		
		Wrote	Pass	%	Wrote	Pass	%	Wrote	Pass	%	Wrote	Pass	%
Maths	HG	68,5	22,8	4.1	60,3	20,3	3.7	50.1	19,9	3,9	38,5	19,3	3,9
Maths	SG	184,2	66,9	12	219,4	68,6	12,4	231,2	72,2	14,1	254,5	79,6	16,2
Phys. Science	HG	76,1	27,0	4,8	73,3	26,7	4,8	66,5	24,2	4,7	55,7	23,3	4,7
Phys. Science	SG	65,2	35,2	6,3	83,8	43,2	7,8	93,5	44,0	8,6	125,1	55,1	11,2

The picture is even more disturbing for learners from disadvantaged backgrounds. Table 2.4 reflects the performance of learners per province in the year 2000 as illustrated by (Mphahlele 2002:5).

Table 2.4   <u>**Performance of African candidates in Mathematics and Physical Science in 2000**</u>

	MATHEMATICS HG		PHYSICAL SCIENCE HG		MATHEMATICS SG		PHYSICAL SCIENCE SG	
PROVINCE	WROTE	PASS	WROTE	PASS	WROTE	PASS	WROTE	PASS
Western Cape	78	21	93	45	3 889	662	2 204	1 100
Northern Cape	12	9	24	4	671	218	333	178
Free State	471	115	2 098	619	12 066	2 454	5 146	2 639
Eastern Cape	362	113	1 060	136	36 736	11 101	21 435	8 548
Kwa-Zulu Natal	5 722	746	7 108	1 221	40 367	10 309	16 109	7 062
Mpumalanga	1 381	159	3 567	264	16 451	3 235	7 048	2 730
Northern Province	7 780	1 041	12 902	1 621	36 884	5 683	10 499	3 897
Gauteng	812	329	1 566	471	20 497	5 478	11 495	5 286
North West	3 575	595	5 239	755	12 644	2 200	3 411	1 434
TOTAL	**20 243**	**3 128**	**33 657**	**5 136**	**180 202**	**41 540**	**77 680**	**32 874**

Given the cited patterns of participation and progression, the existing schooling situation seems badly flawed. Christie (1998:112) says that many students do not progress as far as this phase and of those who reach the phase, many fail and many study a curriculum which does not give access to further study or employment in the modern economy.

2.2.2 <u>The divided system</u>

The education and training system was also strongly divided. Kraak (1998:26) refers to the system as highly fractured along four differing axes, which are:

- There were 19 racially defined education departments. There were 128 technical colleges administered by 10 education departments. In addition to the centralised Department of Manpower, there were separate manpower departments in each of the independent homelands.

- There were 9 examining bodies in the formal school education system administering up to 90 exams per year with a high degree of duplication and no equivalent body for non-formal training.

- The lack of a qualifications structure in the non-formal sector limited the possibility of transferability of skills between differing employers and industries and it constrained the articulation of differing education and training routes.

- Poor articulation between the formal education system and the non-formal training system.

Given the multiplicity of education and training departments and certification councils, it is not surprising that certification processes were chaotic and non-comparable (Kraak 1998:28).

Christie (1998:112) remarks that, despite the debates on integration, responsibilities still remain divided between the Department of Education and the Department of Labour in the new government. At senior secondary level, especially, there are still separate systems of provision, curricula, examinations and certification structures for education and training. The two major divisions are the Senior Certificate provided by formal schooling and the network of national trade certificates provided by technical colleges, accredited training boards and training centres.

The separation formally begins at the end of Grade 9 when students are eligible to enter apprenticeships or learnerships, although some apprenticeships may require a Grade 12 qualification.

The academically-oriented schooling sector has tended to dominate sections of post-compulsory schooling, as the Senior Certificate examinations has had the status of being the major selector for higher education opportunities, with most white students having completed a certificate of some sort (Christie 1998:113).

Given the above-mentioned scenario, the divisions are furthermore exacerbated, as a curriculum geared towards university entrance has enjoyed virtually unquestioned dominance, even though the majority of students in the system do not achieve this.

Christie (1998:113) asserts that, although the Senior Secondary Phase for schooling is relatively homogeneous, in terms of providers, most of whom are schools, the picture for the post-compulsory sector is much more complex.

She says that, along with schools, there are technical colleges, community colleges, private providers, non-governmental organisations, industry trainers and labour market projects, all operating in isolation from each other. It seems as though these divisions have indeed assisted to reproduce the deep inequalities of the education and training system.

2.3 <u>Pressures on the education and training system</u>

Be this as it may, the skills level in the country at the time, as well as the negative effects of the deeply divided system, raised much concern for the government in waiting, as they were preparing to enter the world economy. It is, therefore, not surprising that they were engaged in the systemic discourse as referred to by Kraak in 2.2. Key aspects of the pressures caused by globalisation and massification and the effect on the education and training systems world-wide, will be outlined:

2.3.1 <u>Globalisation and the demand for higher skills</u>

According to Margaret Archer (1991:3), globalisation is:

> *"a multifaceted process entailing a*
> *growing worldwide interconnectedness*
> *of structure, culture and agency and a*
> *parallel de-differentiation of traditional*
> *boundaries".*

Given the country's entry into the global economy, it became imperative for South Africa to concentrate on closing the gap between education and training. Kraak (1999:26) agrees that these divisions, which were characteristics of the South African education and training system, would now become obsolete in the global economic environment because job- specific skills would become redundant, as all workers would require higher skills to cope with the rapid changes in technology and product markets ushered in by globalisation.

To further highlight the need for change, Spady (1998:31) refers to Alvin Toffler's book, Power Shifts, where Toffler describes the impact that continuously emerging technologies are having on what used to be a fairly stable and predictable economic world. He says that the world of *"the steady job"* and *"lifetime career"* seems to be over. In its place has emerged the complex, high-technology, competitive, unpredictable and globally interdependent marketplace that is demanding constant change, adaptation learning innovation and quality from its members. Yesterday's right answers are today's obsolete solutions.

The nature of this profound change and its implications for education is further illustrated by Spady (1998:31) in a quotation from futurist David Snyder who says:

> *"while only about 25 percent of the jobs*
> *in the post-World War II economy required*
> *the reasonably sophisticated handling of*
> *information and data, that number has risen*
> *to 75 percent in the nineties, and is headed*
> *for 90 percent by the end of the century.*
> *What has traditionally been regarded*
> *as "unskilled" and "semi-skilled" jobs now*
> *require data manipulation and computer skills".*

Apart from the pressures of an information-literate technologically competent workforce, the globalised education system needed people with high levels of communication, collaboration, interpersonal and leadership skills. Spady (1998:32) and others assert that the hallmark of the information age workplace, is teams, who are able to work effectively, that can collectively discover and solve significant problems and work successfully with others to get their potential solutions implemented.

Another key area is the development of interpersonal skills. These skills are mirrored in the demographic changes taking place in the United States and Canada. What were regarded as predominantly white, English speaking societies 20 years ago, have become racially and culturally diverse, due to the major waves of immigrants from all parts of the world, resulting in large cities, populated with people representing dozens of ethnic and home language backgrounds, all striving to find a niche in the economic, social and political fabric of their communities (Spady 1998:32).

Kraak (1999:26) mentions another key feature of globalisation, namely, the rapid diffusion of learning activities outside of specialist learning organisations, such as schools, colleges and universities. He points out that learning in the information age is now taking place in many non-specialised learning organisations, in particular, through entrepreneurship-learning but also in the communities where educated citizens continuously generate, manipulate and interpret knowledge and information in pursuit of a better quality of life.

The changes in the global economies have indeed diluted the boundaries which have separated learning activities in the once formal, divided education and training sectors, to an open and massified system with soft permeable boundaries (Kraak 1999:26).

Given the strongly divided education and training system, which was aggravated by the acute inequalities of status between formal education and vocational training, as well as by a high degree of sectoral and institutional fragmentation, the country indeed faced a major dilemma, whilst on the brink of entering the world economy.

Strategies to overcome this division had to be found and solutions were sought from countries where closer linkages of integration were operational.

Christie (1998:114) points out that globally there has been a scrutiny of the relationship between general and post-compulsory education and refers to Skilbeck (1990:90), who reviewed the Organisation for Economic Co-operation and Development Curricula and noted *"the strengthening of the vocational strand, whether within the comprehensive school itself or through specialised prevocational institutions"*. A further common objective emerging among countries is what Conyer (1993:66) identifies as:

> *"the "linkage", "integration", or convergence of general*
> *and vocational education and training   Analytically,*
> *this calls for closer relations between historical distinct*
> * institutions and programs in justified terms of economic*
> *demand for higher levels of qualifications in the workforce,*
> *by pressures from within educational systems for more*
> *openness and coherence of educational structures and*
> *pathways, and by pedagogical arguments in favour of*
> * "integrated learning", that is meaningful combinations*
> *of practical, theoretical, academical and vocational learning".*

The strong mooting for these linkages from many a researcher and policy-maker in countries such as New Zealand, Australia, Sweden, Canada and France, resulted in the introduction of a unified or partly-unified system, although Christie (1998:115) asserts that no country fully achieved a fully integrated system. She does, however, say that there are emerging patterns of closeness between general and vocational education, which themselves are anchored in the different historical patterns of countries and their different reform initiatives.

The reform initiatives of many countries therefore reflect this global shift towards more skill-intensive production, bringing the need for a more qualified labour force. In addition, people with a sound knowledge base in general education which is transferable, rather than job specific-skills, are in demand (Christie 1998:115).

As pointed out earlier, it is apparent why other skills such as versatility, flexibility, problem-solving abilities, technological competencies and the ability to work in teams, is a necessity.

Christie (1998:116) also points out that the relationship between education and work skills were, therefore, very evident in the early South African policy debates. She says that a system of separately tracked academic and vocational education has been criticised world-wide for producing school leavers with inadequate understanding of workplace issues, as well as trade people who do not have high levels of general education. South Africa was no exception.

She says that a general consensus had been reached among influential policy actors. To ensure economic development in South Africa, better educated workers, who are conversant with Mathematics and Science as required by technological developments, as well as possessing the qualities of flexibility, versatility and problem-solving, were needed. The need for education to be more responsive to changing patterns of work has become an imperative.

2.4   Curriculum policy options (1990-1994)

Although profound changes indeed occurred after the 1994 elections, Jansen (1999(a):4) reminds one of the significance of the year 1990. He believes that this particular period was a critical turning point in curriculum debates in South Africa, as competing social movements and political actors vehemently began to stake their curriculum positions in anticipation of what then seemed inevitable, the emergence of the first democratic state of South Africa, following the national, non-racial elections. It is against this background that the origins of the curriculum transformation process is traced.

2.4.1 The Educational Renewal Strategy

According to Greenstein (1998:131) and Jansen (1999(a):5), the apartheid government continued to pursue its own internal reform process, even though it became evident in 1989 already, that the democratic movement started envisioning a new education system.

The Department of National Education presented a curriculum position by publishing the Education Renewal Strategy in two versions and then later formulated *"A Curriculum Model for South Africa"* (CUMSA), which was issued in 1994. Greenstein (1998:131) contends that the model's underlying philosophy is that provision would be made for all points of view. It emphasised that:

> *"The various religions, culture and language groups will therefore have the opportunity of formulating and introducing into the curriculum education philosophies such as, inter alia the Christian or Islamic, based on their particular outlook".*

Greenstein (1998:131) believes that the apartheid government now recognised that the perspectives of the different sub-groups in society were not sufficiently reflected and through CUMSA sought to correct the situation by giving equal opportunities to all, irrespective of race, colour, creed or sex.

It is furthermore noted, that the model proposed the development of core learning areas, as well as a stronger vocational emphasis in the school curriculum. What is striking, although according to Jansen (1999(a):5), unpalatable to some, the beginning of some of the curriculum reforms initiated after the 1994 elections, appears in CUMSA. The model proposes syllabus reduction, learning area specifications and the linkage of education to economic development through an emphasis on technology education; hence the outcomes- based Education (OBE) related idea, that less is more in terms of organising curriculum content.

Jansen (1999(a):5) believes that the idea may have started to surface within CUMSA, although he points out that no specific reference is made to an outcomes-based education system.

2.4.2   The National Education Policy Investigation (NEPI)

The National Education Co-ordinating Committee (NECC), which was comprised of an alliance of progressive education and labour stakeholders, initiated the National Education Policy Investigation (NEPI) in 1992 (Badat 1998:22) (Jansen 1999(a):5). The investigation spanned over a period of two years and took place within the framework of existing policy assumptions regarding the critique of apartheid society and reflected a social democratic vision of education for a new democratic society. Badat (1998:23) says that the investigation analysed educational aspects of the repressive apartheid society, with the objective of generating policy options and their implications in the context of comparative education experience. The policy options were to be guided by five principles, namely, non-racism, democracy, redress equality and a unitary system, which would form the basis for the post-apartheid education policy.

The outcome of NEPI was twelve research reports on various areas of education, together with an overall framework report which contextualised the individual reports, as well as the provision of summaries of the reports. According to Jansen (1999(a):5), the most striking observation of the report, was that it made no reference to OBE and only broad suggestions about a co-ordinated education and training system.

Badat (1998:23), however, believes that it was none the less useful, as it provided an opportunity for developing indigenous capacity for policy research and analysis. He goes on to point out that it also provided a useful counter-example to the technocratic process, which had generated the governments' own Educational Renewal Strategy proposals.

2.4.3 Non-Governmental Organisations

Foreign-funded, non-governmental organizations (NGO's), led by the United States for International Development USAID, also produced a wide range of curriculum alternatives, particularly with regard to adult education, early childhood education, matriculation preparation programmes, an academic curriculum for universities, as well as a curriculum for independent schools (Jansen 1999(a):5).

On analysing the various curriculum, it is concluded that the philosophies and approaches embedded in the NGO education programmes were diverse, ranging from radically progressive approaches to mainstream delivery programmes. Jansen (1999(a):5) says that he finds it difficult to describe any coherence, if any, and contends that it can be safely claimed that there was not a single OBE-specific approach evident in this broad range of NGO curriculum.

None the less, Badat (1998:23) notes that the technocratic approach to alternatives and proposals was not the only preserve of the apartheid government. He argues that international agencies, including the World Bank of USAID, launched investigations and proposals around various aspects of South African education and its restructuring, but in the main, he finds that the process took place quietly, out of the public eye, with little or no public dissemination of reports.

2.4.4 The Private Sector Education Council

The private sector, too, was not left out on presenting proposals. The Private Sector Educational Council (PRISEC) placed a series of proposals calling for vocational and entrepreneurial education, rather than formal education, given the demands of the economy. The same ideas were also highlighted by the Education Policy and Systems Change Unit (EDUPOL) of the Urban Foundation, who, too, outlined a set of key operational ideas for State attention, including educational governance and teacher education, but again Jansen (1999(a):5) says that these proposals also make no reference to outcomes- based education.

2.4.5   <u>The National Training Strategy Initiative</u>

Many agree that the National Training Board was the most important curriculum stakeholder at the time, despite losing legitimacy among trade unions, given its failure to consult. The situation changed drastically as the latter National Training Board secured full participation and leadership of the Congress of South African Trade Unions (COSATU) and produced the most significant policy document of the time, namely, the National Training Strategy Initiative, which is believed to have provided the basis for curriculum and assessment thinking within South Africa (Jansen 1999(a):6).

Although the primary focus of the National Training Strategy Initiative was on labour and the training sector, its proposals for an integrated approach to education and training bound the education sector, its proposals for an integrated approach to the education sector, including schools, into this particular framework of thinking. The subsequent National Qualifications Framework (NQF) thus implied linking education qualifications to training qualifications in the proposed integrated system. Jansen (1999(a):6), furthermore, remarks that at the time, the Congress of South African Trade Unions (COSATU) were engaged in lively debates about competency-based education (CBE), as an instrument to provide and accredit training in the labour sector. Arguments were thus persuasive, both on moral and practical grounds. He goes on to point out that, morally, the traditional, dead-end, ad hoc training of labour did not provide any progression and mobility, as prior working experience was not recognised, meaning that subsequent training assumed a blank state. This implied effectively dismissing any possibilities of trainees having prior knowledge and building on what they already know. From a practical point of view, the emphasis on demonstrating competences as the basis for assessment and progression made good sense, given the work environment in which trainees found themselves.

The debates were further deepened by lead thinkers in COSATU as they exchanged proposals and experiences with labour counterparts in Australia. According to Kraak (1999:30), the ANC/COSATU alliance, via the National Training Strategy Initiative argued for a paradigm shift *"from thinking about education and training as separate entities to thinking about a life-long process".*

He emphasises the point by referring to the National Training Board (NTB) (1994:2), which refers to the initiative as a *"superordinate strategy with education and training as a whole".*

The National Training Strategy Initiative included the following four key features:

- A National Qualifications Framework as the nuclear of the strategy, allowing for a multiplicity of qualifications drawn from a range of education and training pathways.

- A governance structure which could champion the objectives of the National Training Strategy Initiative between the state, business, labour and other stakeholders, link up with similar structures in the economy and labour market, ensure an acceptable delivery of education and training, ensure articulation between schooling and other levels of learning, accredit and certificate learners and finally, assess the performance of the system as a whole. The governance structures that were recommended included a single Ministry of education and training, a representative multipartite forum for the formulation of national education and training policy, a single National Qualifications Authority and statutory councils in each education and training band.

- A set of financial incentives to drive investments in Education and Training.

- A National Economic Development Plan to link Education and Training to socio-economic planning and development. (N T B 1994:11,12,19)

What is immensely clear, is the ANC/COSATU alliance opposition to divisive education and training systems and the social divisions they buttressed in the occupational structure and the economy. The influential ANC discussion document, A Framework for Life-long Learning, maps out the new approach to the idea of a nationally-integrated curriculum with a single qualification structure. The document also proposes that learners will be required to complete a given number of modules, some compulsory and *"core"*, whilst others are optional and may be selected from a bank of vocational and academic modules. It further states that the core and optional modules will be determined by the *"multipath"* context in which learning is done, whether it be in the classroom, the factory training centre, high school or by correspondence (Kraak 1999:33).

Central to the integrated proposal is the NQF, which is viewed as a regulatory mechanism, able to link the previously disparate education and training sub-systems. Kraak (1999:33) quotes Young (1996:24), who assessed the proposal and outlines the following advantages that accrue from such a framework:

- The NQF is an inclusive system that provides ladders for everyone to move along. It replaces an exclusive system based on the idea that only a limited proportion of any cohort has the ability to become qualified.

- The NQF is not limited to accrediting learning
  in specifically educational institutions, such as
  schools and colleges, nor is the NQF only focused
  on learning in the preparatory phase of a person's life.
  It is designed to accredit learning wherever it occurs
  and at any stage of a person's life.
- The NQF abolishes distinct academic and
  vocational tracks and replaces them with
  an integrated system in which learners are
  not differentiated by the track they are on but
  by the combination of modules at each level
  that they achieve.
- The NQF is designed to be appropriate for
  adults at any stage, as it is for young people.
- The NQF is designed not only as a basis
  for selection but as a way of recognising,
  encouraging and promoting learning in its
  widest sense.

Kraak (1999:34) furthermore contends that the changes envisaged by the NQF approach, are radical in two ways. Firstly, there is a deliberate attempt to avoid the traditional divide within post-compulsory education between a vocational and academic track. By so doing, the processes of social class formation which are associated with highly divisive educational institutions are diluted, as the divisions between an *"elite"* academic and *"lower-status"* vocational trace are eradicated. Secondly, the changes open up access to tertiary institutions, as the integrated system makes more equitable the distribution of publicly- owned tertiary resources to the vast majority of people.

What is most striking of the period, is that it seems as if the debate on an integrated system was largely confined within the labour movement and its expanding relationship with business. Jansen (1999(a):5) is also of the opinion that very little interrogation came from teachers and principals working in schools.

None the less, from the above it can be gleaned that a number of policy proposals, each with different approaches and decidedly different slants, were put on the table prior to 1994. The National Training Board's National Training Strategy Initiative, which arose from the ashes of the previous government's unilateral and premature attempt to reform industrial training seems to be the one formal proposal which articulates the creation of an integrated Education and Training approach very clearly (Jansen 1999(a):5).

Christie (1997:115), unlike Jansen (1999(a):5) remarks that all proposals with the exception of that of the Department of National Education, favoured the integration of education and training, as well as the promotion of high level skills needed for economic growth in the country.

2.5   Policy developments after 1994

The ANC consolidated its commitment to an education and training system, after coming to power and appointed various commissions to investigate different aspects of the education system.

2.5.1   The White Paper on Education and Training 1995

The White Paper on Education and Training was the first policy document that ushered in the new era in education and training. Van Wyk and Mothata (1998:3) point out that in this document, the then Minister of Education, Professor Bengu, (1995:5) reiterated the central problem which faced education and training in South

Africa, namely, that *"South Africa has never had a truly national system of education and training"*. The White Paper on Education and Training officially sanctioned the idea of an integrated education and training system, and raised amongst other the following key values and principles, which are consistent with the democratic principles described in the Bill of Rights of the New Constitution (1995:14-23).

2.5.1.1   An integrated approach to education and training

The document sees education and training closely related and rejects the rigid division of the past, between academic and applied theory and practice and knowledge and skills.

Both education and training are spheres where the learning of skills, knowledge and generic abilities, such as communication and problem-solving, can be acquired, thus both education and training are essential elements of human resource development and should not be viewed as parallel activities. The White Paper on Education and Training (1995:15) also views an integrated approach essential, as it is a major international trend in curriculum development, as well as the reform of qualification structures.

To further develop the common interest in an integrated approach to education and training, the Ministers of Education and Labour established an Inter-Ministerial Working Group. This group, in addition to other related groups, also emphasised that education and training should be seen as closely related and not as restricted to certain periods of an individuals' life (Department of Education 1997(a):12). The proposal highlighted the fact that education and training should be seen as a life-long process. In this regard, the NQF, as discussed in 2.5.3, plays a pivotal role (Van Wyk and Mothata 1998:3).

Another aspect of an integrated approach is that it gives account and value to the kind of learning that people have already achieved in their lives, whether it be at school, work or in their daily interaction with others. This recognition of what people know, is referred to as the Recognition of Prior Learning (RPL) which is a cornerstone of the NQF. The integrated approach, in essence, implies that people should be able to enter or access the education and training system at a point that depends on their prior learning. For example, an adult woman who left school at the age of 12 with a Grade 7 and who now wants to study at the age of 35, may not necessarily have to begin with Grade 8. She will be assessed in terms of her knowledge and skills base and then enter the system at the point that suits her best (Human Science Research Council (HSRC) 1995:7).

In addition, the integrated approach also ensures that learners can keep progressing up the levels by gaining credits for units which they have successfully completed. For example, the 35 year old learner can use her credits to enter the training world. The relevant credits are readily transferable across different programmes, industries and education providers, through the NQF, which unifies qualifications in education and training, based on set standards and set assessment procedures that are nationally applicable (HSRC 1995:7).

2.5.1.2   Life-long Learning

As set out in 2.4.5, in the discussion on the National Training Strategy Initiative, the White Paper on Education and Training (1995:21) also supports life-long learning.

Van Wyk and Mothata (1998:4) say that the notion implies that learners should have the desire and ability to continue to learn, to adapt and develop new knowledge, skills and technologies, to move flexibly between occupations and to take responsibility for their personal performances.

They also affirm that the provision of life-long learning goes well beyond the provision of schooling and implies the provision of an increasing range of learning opportunities, offering learners greater flexibility in choosing what, where, when, how and at what pace they learn.

2.5.1.3 **An outcomes-based approach to learning**

Both integration and the concept of life-long learning lie at the heart of outcomes-based education (OBE) and the NQF. The introduction of a system of learning outcomes which could be achieved, implied opening the doors of opportunity for people whose academic or career paths have been blocked because their prior knowledge had not be assessed and certified, or because their qualifications have not been recognised for discussion to further learning or employment (Van Wyk and Mothata 1998:4).

2.5.1.4 **Independent and critical thought**

The White Paper furthermore points out that the curriculum, teaching methods and text-books at all levels, as well as in all programmes of education and training, should encourage independent and critical thought, as well as the capacity to question, enquire, reason, communicate and form judgements. These all justify the outcomes-based approach. Van Wyk and Mothata (1998:5) are of the opinion that this exciting principle would have far-reaching effects, as it moved away from the concept of the past, where the written word was seen as *"closed"* to challenge.

2.5.1.5 **Mathematics, Science and Technology Initiative**

Mathematics, Science and Technology are deemed to be crucial to economic advancement and, therefore, require special attention given the participation and performance as outlined in 2.2.1. Van Wyk and Mothata (1998:5) also explain that comparatively speaking, South African learners perform poorly in Mathematics and Science compared to learners in other developed countries.

They cite results from the Third International Mathematics and Science Study (Pretoria News 1996:2), which indicated that in 1996, South African Grade 7 and 8 learners came last out of half a million teenagers worldwide who took part in the study. South African learners notched the lowest average marks in both Mathematics and Science. In Mathematics, the average South African score was the same as, or worse than, the lowest five percent of scores in all but a handful of 40 countries.

It is, however, acknowledged that South Africa's poor performance is not surprising, given the fact that apartheid education denied the majority of learners the opportunity to excel in any of these subjects. Hence, enhanced capacity in Mathematics and Science is deemed essential.

2.5.1.6   Transforming the legacies of the past

As referred to in 2.2.1 and 2.2.2, the legacy of underdevelopment and inequity in terms of schooling was deeply entrenched. The White Paper, therefore, proposed that learning opportunities had to be provided for all learners, irrespective of race or creed (Van Wyk and Mothata 1998:4).

2.5.1.7   Access to education and training for all

As explained in 2.5.3.2, the establishment of the NQF was sanctioned, as it would provide opportunities for learners to move easily from one learning context to another, so that the possibilities of life-long learning could be enhanced (Van Wyk and Mothata 1998:4) (Kraak 1999:33); (Ngcongo and Chetty 2000:70).

The White Paper also alludes to the principle of equity, which is linked to the principle of redress, implying that the state's resources must be deployed, so that they are used to provide essentially the same quality of learning opportunities for all citizens.

It clearly states that strategies should be employed to ensure that the system protects the rights of teachers and learners to equitable treatment. Specific reference is also made to affirmative action policies, as well as representation of women in leadership positions, which have to be increased. To address these affirmative action related issues, the government proposed the Employment Equity Bill which aims to eliminate unfair discrimination in employment and to provide affirmative action to redress the imbalances of the past and to create equality of employment (Van Wyk and Mothata 1998:5); (Ngcongo and Chetty 2000:70).

2.5.1.8   The rights of parents

The White Paper also focuses on the issue that parents and guardians have the primary responsibility for the education of their children and have the right to be consulted by the state authorities with respect to the form that education should take.   Moreover, the principles of democratic governance should be reflected in every level of the system, in consultation with elected representatives of the main stakeholders, interest groups and role players (Ncgongo and Chetty 2000:70).

2.5.1.9   Rehabilitation of schools

The issue of the rehabilitation of schools and colleges, is also raised. This means that rehabilitation should go hand in hand with the restoration of the ownership of these institutions to their communities through the establishment and empowerment of legitimate, representative governance bodies (Ncgongo and Chetty 2000:10).

2.5.1.10   Accountability

The restoration of the culture of teaching, learning and management involves the creation of a culture of accountability. Van Wyk and Mothata (1998:5) say that this means the development of a common purpose or mission among learners, teachers, principles and elected governors. It also implies clear, mutually agreed upon and understood responsibilities and co-operation.

2.5.1.11   Religious, language and cultural traditions

Another major issue articulated in the White Paper, is the development of respect for people's religions, language and cultural differences. This implies that learning should be related to the life world of the learner, thus outcomes-based education encourages teachers and learners to focus on outcomes that have real-life application (Van Wyk and Mothata 1998:5).

To sum up, the White Paper on Education and Training indeed responded to bringing about change. It brought together a set of proposals to restructure the relationship between education and training, to introduce greater flexibility of structures, to enhance mobility between learning contexts and to build quality on the scaffolding of a NQF. Christie (1998:113) says that, together, these proposals aim at a policy of life-long learning which would widen access to education and training, as well as link it to human resource development policies. It furthermore, spells out the need for a human resource development programme which would expand the ways in which people are able to acquire learning and qualifications of high quality, as well as enable successful learners to progress to higher levels, without restriction from any starting point in the education and training system, implying that a learner's prior learning should also be formally assessed and credited.

She concludes that, together, these proposals aimed at improving participation and retention rates in the education system as a whole, thereby meeting the reconstruction and development demands, so that the knowledge and skills base of the working and unemployed population could be upgraded, as well as ensure that the youth at school would have better opportunities to continue education and training.

What is probably a significant observation, is that the Department of Education, White Paper on Education and Training (1995:25) introduced the National Qualifications Framework, which would serve to provide for the registration of national standards and qualifications, based on learning programmes with clearly stated outcomes, which would later become the centre-piece of the new school curriculum (Geyser 2000:23).

2.5.2 The South African Qualifications Authority (SAQA)

Another of the major developments, is the formation of the South African Qualification Framework (SAQA). In order to gain a clear understanding of the role of SAQA and the structures associated with it, SAQA will be briefly discussed, as well as its role in implementing the NQF.

2.5.2.1   The structure of SAQA

SAQA as qualifications accrediting body of the country, was established in terms of the SAQA Act of 58 of 1995. The body is composed of up to 28 members, including a chairperson who is, together with not more than six other rs, appointed by the Minister of Education and 21 other members nominated by different stakeholders for appointment by the Minister of Education (Vakalisa 2000:183).

The stakeholders who are eligible to nominate representatives in SAQA, include the directors general of education and labour, councils of university and technikon principals, heads of provincial education departments, the National Training Board, the national organisations representing organised labour, business, colleges and the teaching profession. SAQA is therefore a large body comprised of representatives from a wide spectrum of providers and consumers of the country's education and training efforts (Vakalisa 2000:183).

This broad spectrum of providers and consumers of the country's education and training efforts, ensures to the same extent, that the body has no shortage of expertise for assessing the standards of qualifications that SAQA is required to accredit. SAQA operates from a national office which is presided over by the South African Authority Executive Officer (Vakalisa 2000:183).

2.5.2.2   **Functions of SAQA**

As alluded to earlier, SAQA's primary responsibility is to oversee the implementation of the NQF (Jansen 1999(a):35). The functions of SAQA according to RSA: Government Gazette No. 16725, Vol. 364 (1995:1205), include the following:

- To oversee the development of the NQF and to formulate and publish criteria for the registration of bodies responsible for:

  - *"establishing education and training standards or qualifications*
  - *accreditation of bodies responsible for monitoring and auditing achievements in terms of such standards and qualifications"*

- To oversee the implementation of the NQF including:

  - *"the registration of accreditation of bodies responsible for establishing education and training standards of qualifications and assigning function to those bodies*
  - *the registration of national standards*
  - *steps to ensure compliance with provisions for accreditation*

> - *steps to ensure that standards and registered qualifications are internationally comparable "*

- To advise the Minister of Education on matters affecting the registration of standards and qualifications.

- To consult with affected parties.

2.5.2.3   Subsidiary bodies of SAQA

As SAQA cannot single‑handedly achieve its mission *"to develop and sustain policies, procedures and infrastructure for the National Qualifications Framework"* as set out by the R.S.A:Government Gazette No. 18221 (1997:37), SAQA uses the services of four structures in fulfilling its functions.

These are the National Standards Bodies (NSBs), which are directly registered with SAQA, the Standards Generating Bodies (SGBs) which are registered with the NSB's, the Education and Training Quality Assurance (ETQA) bodies and the Qualifications Councils (Human Sciences Research Council 1995:21-23) (Mothata 1998:15,16) (Vakalisa 2000:186).

- ### The National Standards Bodies (NSB's)

The National Standards Body (NSB) is a body registered in terms of Section 5(i)(a)(ii) of the SAQA Act highlighted in the RSA: Government Gazette No. 16725 Vol. 364 (1995:1205). Twelve fields of learning have been identified by the Department of Education; hence each field has its own NSB.

According to Mothata (1998:16) and (Vakalisa 2000:186), the composition of each NSB is as broad as possible and includes everyone who has a legitimate interest in the standards being generated. Vakalisa (2000:186), however, points out that SAQA has the power to decide on the size of an NSB.

The names of nominees are then published in the relevant Government Gazette and Comments are invited on their acceptability and the representiveness of the national stakeholder bodies with a key interest in the field (Vakalisa 2000:186).

If there are no objectives to the persons nominated, they are appointed, and individually issued with formal certificates of appointment by SAQA. The Chairperson and the Executive Officer of SAQA or their nominated members, serve as ex-officio members of each NSB (Vakalisa 2000:186).

According to the RSA: Government Gazette No. 18221 (1997:37), the functions of the NSB's include:

- advise SAQA on the sub-fields which constitute their field of learning
- help in setting up the Standards Generating Bodies (SGBs) for each sub-field
- examining qualification proposals made by education providers and recommending the registration of unit standards of programmes that meet their approval on the NQF
- monitoring the provisioning of educational programmes within their field of expertise through the well defined functions of the Education and Training Quality Assurers (ETQAs).

In short, the NSBs work directly with SAQA, advising the Authority on nationally and internationally acceptable standards of qualifications in their fields of expertise. The NSBs, in turn, employ the service of the SGBs, who are specialists in the different sub-fields within each field of learning (Vakalisa 2000:187).

- ### **The Standards Generating Bodies (SGB's)**

The Standards Generating Bodies (SGB's) are also registered in terms of Section 5(i)(a)(iii) of the SAQA Act, outlined in the RSA: Governmnet Gazette No. 16725 Vol. 364 (1995:1205).

As stated above, one of the functions of the NSB's is to establish SGB's within the framework of sub-fields. They also have the right to withdraw or rescind such an establishment. People who get nominated and eventually appointed to SGB's are specialists in the sub-fields of their learning fields.

For example, the field Physical, Mathematical, Computer and Life Sciences is a wide field which requires specialists in Physics, Chemistry, Calculus, Biology, Computer Science, etc. Hence, the number of SGB's established by any NSB depends on the diversity of sub-fields within the field of learning in which it operates.

As with the representation of stakeholders in the NSB, the SGB's are also represented by a broad forum of stakeholders, state departments, organised business and labour, providers of education and training, critical interest groups and community learner groups (Vakalisa 2000:187).

According to the RSA: Government Gazette No. 18 221 (1997:43), the functions of the SGB's include the following:

- generating unit standards and qualifications in accordance with SAQA requirements in identified sub-field and levels,
- updating and reviewing standards, recommending unit standards and qualifications in NSB's

The unit standards generated by SGB's, once approved by the NSB's concerned and finally by SAQA, are registered on the NQF. All learning programmes proposed by education providers are evaluated against these standards for accreditation (Vakalisa 2000:187).

- **Education and Training Quality Assurers (ETQAs)**

The Education and Training Quality Assurers (ETQAs) are charged with monitoring the quality of provision of education and training against the standards that have been set by SAQA (RSA: Government Gazette No. 18 221 1997:47).

They can also be established on the basis of, for example, economic or social sectors or education and training sub-systems. In a sector, where no ETQA can be accredited and where deemed necessary by SAQA, the RSA: Government Gazette No. 16725 (1995:1205). stipulates that SAQA will undertake the functions and responsibilities which would normally be allocated to such an ETQA.

The RSA: Government Gazette No. 18221 (1997:47-48) furthermore stipulates the functions of the ETQA as delegated by the SAQA:

- The accreditation of constituent providers requiring the evaluation of the quality management system of a provider to see whether it can demonstrate the ability to provide learning programmes and manage the assessment of those qualifications and, or unit standards for which it wishes to be accredited.
- The promotion of quality among constituent providers.
- Monitoring the manner in which the programmes are presented by constituent providers.
- The registration of constituent assessors for specified NQF standards and or qualifications in terms of the criteria established for that particular purpose.
- Certification of learners.
- The recommendation of new standards and qualifications to NSBs for consideration or the recommendation of modifications to existing NQF standards and qualifications to NSBs for consideration.
- Any other function assigned to them by SAQA.

- **The Qualifications Councils**

Qualifications Councils have the responsibility of combining qualifications in the various learning areas and learning programmes, offered by providers, to determine whether or not individual learners qualify for the certificates issued at the end of each of three education and training bands as stipulated on the NQF.

Vakalisa (2000:188) refers to the Report of the Ministerial Committee for Development Work on the NQF (1996:45) which points out that there should be three Qualifications Councils responsible for the General, Further and Higher Education and Training bands of the NQF. He, furthermore, says that these Qualifications Councils work in consultation with all relevant stakeholders, including academic, business and professional bodies, and are responsible for the registration of qualifications on the NQF.

From the outlined functions of SAQA, it is thus evident that qualifications awarded by the different education providers, are evaluated against the criteria set out in the NQF. This implies that all education providers will be required to present their learning programmes to SAQA for approval, so that they can be registered on the NQF to ensure official recognition of qualifications.

Vakalisa (2000:188), furthermore, explains that, while the NQF outlines the unit standards for the accreditation of qualifications through formal learning, the principle of recognising prior learning which is embedded in the model of life-long learning, also provides for the accreditation of learning experiences gained in formal and non-formal educational situations.

The Recognition of Prior Learning (RPL) makes provision for a comparison of previous learning and experiences obtained by the learner, against the learning outcomes required for a specified qualification and the acceptance for purposes of qualification of that which meet the requirements as set out in the RSA: Government Gazette No. 18 221 (1997:35).

It stipulates that any person who has been working in a particular field, getting experience in applying certain skills, may therefore apply for formal assessment against the NQF standards and obtain credit or formal recognition of these skills. Assessment for individuals presenting themselves in this way, serves two purposes:

- firstly, the recognition of a person's qualifications for purposes of employment
- secondly, the recognition of a person's credits towards enrolment for further learning in a formal education institution.

Moreover, it serves to motivate adult learners who wish to improve their educational status in the areas of their employment, to know that the experiences they have gathered on the job, can actually earn them a number of credits towards further learning. The interactive relationship between SAQA, the NQF and curriculum development is also highlighted by Vakalisa (2000:189) as he refers to the Report of the Ministerial Committee for Development on the NQF (1996:52), which states that:

"Curriculum framework developments will influence the work of those setting standards, and are in turn, informed by the standards set. These processes are so intertwined that it is important to ensure that membership of these development teams overlap, so that the clear links are kept in mind and the development process remains interactive and dynamic".

To fully gauge an understanding of this relationship, the principles underpinning the NQF, the objectives of the NQF and the structure of the NQF will be outlined.

2.5.3   The National Qualifications Framework (NQF)

As discussed earlier, the National Qualifications Framework (NQF) was designed with the aim of improving the quality of education in South Africa.

Pretorius and Lemmer (1998:4) describe the NQF as a framework for the provision of life-long learning opportunities in accordance with nationally agreed qualification levels. They say it consists of a classification of standards and qualifications which may be obtained in the country formally, non-formally or informally and provides opportunities for learners regardless of age, circumstances, gender and level of education.

2.5.3.1   Principles underpinning the NQF

A set of principles was developed in the National Training Strategy Initiative process, which was used to analyse the education and training systems of foreign countries, to assess their relevance for South Africa, as well as evaluate the South African education and training strategy.

These principles have come to underpin the decisions which led to the promulgation of the South African Qualifications Authority Act and the development of the NQF (Mothata 1998:19).

Table 2.5 outlines the principles underpinning the NQF as set out by the Department of Education in Curriculum 2005: Life-long learning for the 21st Century (1997(b):5) and the Human Science Research Council (1995:11).

Table 2.5   **Principles underpinning the NQF**

PRINCIPLE	DEFINITION: EDUCATION AND TRAINING SHOULD…..
Integration	…form part of human resources development which provides for the establishment of a unifying approach to education and training. Education and training are brought together. In the past, education was seen as an area where knowledge is gained and training as an area where skills are obtained. To be in line with the government's integrated approach' or, in simple terms, a unifying approach in education, the NQF strives to join these two areas. This will also enable the learner to move from one place of learning to another.
Recognition of prior learning	….through assessment, give credit to learning which has already been acquired in different ways, e.g. through life experience. All learning is recognised whether it takes place in a formal or informal setting.
Access	…provide easy access to appropriate levels of education and training to all learners in a manner that facilitates progression.
Coherence	…work within a consistent framework of principles and certification.
Legitimacy	…provide for the participation of all national stakeholders in the planning and co-ordination of standards and qualifications.
Portability	…enable learners to transfer credits and qualifications from one learning situation an/or employer to another.
Credibility	…have national and international acceptance (in terms of qualifications).
Standards	…be expressed in terms of a nationally agreed framework and internationally acceptable outcomes.
Flexibility	…allow for multiple pathways to the same learning ends.
Progression	…ensure that the framework of qualifications permits individuals to move through the levels of national qualifications via different appropriate combinations of the components of the delivery system.
Guidance of learners	…provide for the counselling of learners by specially trained individuals who meet nationally recognised standards for educators and trainers.

Mothata (1998:19) remarks that these principles indicate that the NQF is intended to be a way of achieving a restructuring of the education and training system, and that the best way in which the framework can be effective, is by moving away from the traditionally used content-based approach to an outcomes-based approach.

In addition, the White Paper on Education and Training (1995:26) states that the NQF will also serve to encourage the creation of new and flexible curricular, promote the upgrading of learning standards, monitor and regulate the quality of qualifications and permit a high level of articulation between qualifications based on the recognition and accumulation of credits.

2.5.3.2 **<u>Objectives of the NQF</u>**

Taking the above mentioned principles into consideration, SAQA proposed the following objectives of the NQF.

- Create an integrated national framework for learning achievements
- Facilitate access to, and mobility and progression within the education, training and career paths
- Enhance the quality of education and training
- Accelerate the redress of past unfair discrimination in education, training and employment opportunities
- Contribute, thereby, to the full personal development of each learner, and the social and economic development of the nation at large (RSA 1995:1201), (SAQA Bulletin June 1997:5), (SABC:26.11.1997), (Mothata 1998:20).

2.5.3.3   The structure of the NQF

To respond to these objectives, the NQF has been designed in a particular format, as outlined in Table 2.6 (Human Science Research Council 1995:11); (Lemmer, and Badenhorst, 1997:16); (Department of Education 1997(b):30).

Table 2.6   The structure of the NQF

NQF Level	Learning Band	Types of Qualifications and Certificates	Locations of Learning for Units and Qualifications		
8	**Higher Education and Training Band**	**Doctorates Further Research Degrees**	Technikons/Universities/ Tertiary/Research/Professional institutions		
7		**Higher Degrees Professional Qualifications**	Technikons/Universities/ Tertiary/Research/Professional institutions		
6		**First Degrees Higher Diplomas**	Universities/Technikons/Colleges/Private/ Professional institutions/Workplace, etc.		
5		**Diplomas Occupational Certificates**	Universities/Technikons/Colleges/Private/ Professional institutions/Workplace, etc.		
FURTHER EUCATION AND TRAINING CERTIFICATE					
4	**Further Education and Training Band**	**School/College/ Training Certificates** Mix of unit credits from all	Formal high schools/ Private/ Public schools	Technical/ Community/ Police/ Nursing/ Private colleges, etc.	RDP and labour market schemes/ Industry/Training Boards/Unions/ Workplace centres, etc.
3		**School/College/ Training Certificates** Mix of unit credits from all			
2		**School/College/Training/ Certificates** Mix of unit credits from all			
GENERAL EDUCATION AND TRAINING CERTIFICATE (end of compulsory schooling e.g. ABET)					
1	**General Education and Training Band**	**Senior Phase** Grades 7-9 **Intermediate Phase** Grades 4-6 **Foundation Phase** Grades 1-3 **Preschool** Year 5	Formal schools (urban/rural/ farm/special/ early child-hood development centres)	Work-based training/ Occupational training/RDP/ Labour market schemes/ Upliftment programmes/ Community programmes/ Development schemes	NGOs/Churches/ Adult centres/ Private providers/ Industry/Training Boards/Unions/ Workplace training,etc.

The NQF is viewed as a form of register that outlines the national standards and qualifications that guide accreditation of learning qualifications attained through participating in a given learning programme (Vakalisa 2000:184). The view is justified by the Report of the Ministerial Committee for Development Work on the NQF, which deems the qualifications framework as *"a system, mechanism for the recognition of national standards and qualifications"* (Report of the Ministerial Committee for Development Work on the NQF 1996:47).

The NQF, furthermore, outlines the various formal education and training pathways along which learners may acquire qualifications. Achievements in these learning experiences lead to placement at any of the eight National Qualification Framework qualification levels, as depicted in Table 2.6, from the lowest level 1 to the highest level 8. For example, the General Education and Training Certificate (GETC), which may be attained at the end of either the compulsory schooling period or the fourth level of Adult Basic Education and Training (ABET), places those who attain it at qualification level 1 on the NQF. Further Education and Training (FET) qualifications may place learners at level 2, (Grade 10), level (Grade 11) or level 4 (Grade 12). The certificates equivalent to these grades will also place those who acquire them at the respective National Qualifications levels (Vakalisa 2000:185).

2.5.4 The introduction of Curriculum 2005

Curriculum 2005 was introduced in May 1997, when Professor Bengu, the then Minister of Education, announced the implementation of the new curriculum. In the Department's first official public document on outcomes-based education and training, entitled Curriculum 2005: Life-long learning for the Twenty-First Century (1997(b):1) the reasons for the new approach were:

"…to phase in, with effect from 1998,

a new curriculum based on the ideal

of life-long learning for all South Africans;

and essentially…. to effect a shift from a

curriculum which has been content-based

to one which is based on outcomes".

In effect, the new curriculum endorsed the ideas of an integrated system, emphasising life-long learning and an NQF with eight levels comprising of three bands, namely: general, further and higher education and training (Kraak 1999:35). The registration of national standards and qualifications, based on learning programmes with clearly stated outcomes, could now be registered on the NQF as introduced by the Department of Education, White Paper on Education and Training (1995:25).

2.5.4.1 The outcomes-based approach to Curriculum 2005

Although there was much scepticism about the new curriculum, Spady and Marshall (1994:1) assert that outcomes-based education (OBE) is nothing new. They say that most jobs are outcomes-based, citing several examples:

- when a product is manufactured or hairstyle is created, the outcome is known beforehand
- every homemaker is outcomes-based when a meal is planned and cooked.

Kudlas (1994:32) agrees with this interpretation, as he states that it is "*…..an age-old, common sense approach to education. OBE is a process that focuses on what is to be learned, the outcome".* He defines an outcome as *"a demonstration of learning. It is what the student is to know or do".*

The concept is also abundantly clear as referred to in the Department of Educations' Curriculum 2005: Life-long learning for the 21st Century, Document(1997(b):2). It refers to an outcome as *"the specification of what learners are able to do at the end of a learning experience"* .

According to these definitions, OBE is thus a visible observable demonstration that learners can do as a result of an entire range of learning experiences and capabilities that underlie it. The demonstration happens in a particular context which has a direct bearing on what is being carried out. In addition, Spady and Marshall (1994:2) contend that some outcomes are based on facts and skills in areas such as Mathematics, Languages and Social Studies, such as in the past. Other outcomes may expect a learner to demonstrate their ability and knowledge concerning projects, investigations, presentations or products they have completed at the end of a phase of learning. At the same time, there are also outcomes based on experiences that learners can expect to encounter after the completion of their school career. This type of outcome requires learners to apply their learning in relevant settings and situations related to life outside school.

As illustrated above, the focus of outcomes-based teaching and learning is on what learners know and can do at the end of a learning experience. The OBE curriculum, therefore, has as its starting point, the intended results of the learning experience, which refer to the knowledge, skills, attitudes and values which learners must acquire. Outcomes are clearly stated at the onset and both the teacher and learner know right from the start what the intention of the learning experience is. The outcomes guide the teaching and learning process, as well as the assessment of learner achievement during and after the learning experience.

In addition, the outcomes provide a means of assuring the quality at the end of the phase and form the basis of criterion – referenced assessment (Janse van Rensburg 1998:27).

Spady (1994(a):1-2) furthermore points out, that the outcomes which have been formulated must be achieved by learners at all the levels, but with varying degrees of complexity in the processes learners engage in and in the kinds of evidence which will demonstrate learner achievement. Two kinds of outcomes are distinguished, namely:

- critical field outcomes
- specific outcomes

The critical outcomes relate to the broader intended results of education and training, while specific outcomes are linked to a particular context to a learning area. A clear set of specific outcomes should be developed around which all the system's components can be focused. These outcomes should establish the conditions and opportunities within the system that enable and encourage all learners to achieve the essential critical outcomes (Spady 1994(a):1,2).

In effect, it seems as though this is exactly what the critical and specific outcomes imply, as set out by SAQA (1997:10).

Gultig et al. (1999:21) also highlight the fact that, an outcomes-based approach to teaching and learning has profound implications for teaching methodology. They remark on the fact that the critical outcomes underpin the specific outcomes, which, furthermore implies that learning should now be directed towards acquiring abilities and skills, rather than memorising information. This means that the ability to solve problems, communicate effectively, work in groups, etc., cannot be developed except by practising such activities, and constant refining of performance in response to assessment of progress of the teacher, the individual learner and the peer.

This would suggest that there will be a need for the following:

- an emphasis on activity-based learning, with opportunity for the learners to explore ideas and approaches to learning and the practising of skills;
- co-operative, as well as individual learning contexts, so that learners can develop skills to work individually, collaboratively in a group, as well as recognise which mode is appropriate in given context;
- an emphasis on formative assessment, so that the processes and developmental nature of learning, as well as the end product, is deemed important;
- the setting of tasks that integrate theory and practice, manual and mental learning where practical, and which link classroom learning to the broader society in which it is located.

2.6   Conclusion

It is evident that South Africa's transition to democracy and entry into the world economy, necessitated curriculum transformation, as the system prior to 1994 was clearly not serving the needs of the majority of learners, nor was it equipping learners with high levels of technological, communication, collaboration, problem-solving and leadership skills, needed to ensure growth and development in the country.

Although a number of policy proposals, each with different approaches and decidedly different slants were presented prior to 1994, it was the African National Congress: (ANC), A Policy Framework for Education and Training, and the *"preparing to govern manual"*, which clearly spelt out the provision of "quality" education, life-long learning, and the integration of education and training (Chisholm 1998:59, Kraak 1999:34).

It is, therefore, not surprising that the first education policy document after the democratic elections, namely, the White Paper on Education and Training 1995, officially sanctioned the idea of an integrated education and training system, as well as the concept of life-long learning. Van Wyk and Mothata (1998:4) concur that the integration and life-long learning lie at the heart of OBE and the NQF.

The new curriculum was thus designed to ensure this integration through the NQF. As an assessment, qualifications, competency and skills-based framework, the NQF encouraged the development of a curriculum model aligned to the NQF in theory and practice (Curriculum Review Committee Report 2000:1).

It is furthermore evident that the model which will be outlined in Chapter 3, drew on a variety of ideas in the current and international arena and reshaped them to fit South African conditions. The implementation of the outcomes-based education curriculum is deemed to change education in the country incisively.

CHAPTER 3

AN OUTLINE OF THE STRUCTURE AND DESIGN OF CURRICULUM 2005 AND DEVELOPMENTS AFTER IMPLEMENTATION

3.1   Introduction

In this chapter, the structure and design of Curriculum 2005 is elucidated and the findings of the Curriculum Review Committee is outlined. The structure and design of the Revised National Curriculum Statement is included, so as to highlight the streamlining and strengthening of the curriculum.

As noted in the previous chapter and aptly pointed out in the Curriculum Review Committee Report (2000:2), Curriculum 2005 had its origins in the coalition processes designed to ensure the integration of education and training through the NQF, but moreover, it is regarded as the key in the transformation of South African society. It is directed towards charting the course of achieving *"a prosperous, truly united, democratic and internationally competitive country with literate, creative and critical citizens leading productive, self-fulfilled lives in a country free of violence, discrimination and prejudice"*, as set out by the Department of Education (1997(b):3).

The Curriculum Review Committee Report (2000:38) goes on to say that this vision posed the following dual challenge to curriculum designers:

- The post-apartheid challenge. This meant that the role of the curriculum is to overcome the stultifying legacy of apartheid education by ensuring a deeper knowledge, values and skills-base for South African citizens, which in turn will provide the conditions needed for greater social justice, equity and development

- The global competitiveness challenge. The role of the curriculum in this case, meant providing the platform for developing knowledge, skills and competences for innovation, social development and economic growth for the twenty first century.

Curriculum 2005 was therefore designed with specific design features to address the outlined challenges. In October 1997, the Statement of the National Curriculum for Grades R-9 was published in terms of Government Notice 1445.

3.2 The Statement of the National Curriculum for Grades R-9

The Statement on the National Curriculum for Grades R-9 published in 1997, is a policy document which provides a framework around which provinces and schools may develop their learning programmes. It provides direction to the macro-level curriculum design process and contains the information and detail around the eight areas of learning which guide the development of learning programmes (Janse van Rensburg 1998:29).

3.2.1 The structure and design of Curriculum 2005

The structure and design features of Curriculum 2005 were as follows:

3.2.1.1 Critical Cross-Field Education and Training Outcomes

It is quite evident that the critical cross-field outcomes which were developed through a process of consultation with all stakeholders in the education and training sectors and finalised by SAQA, as mentioned earlier, are responsible for developing and maintaining the NQF.

These critical outcomes are the basic or general outcomes which inform all teaching and learning and which all learners need to achieve at all levels of their development. They relate to the knowledge, skills, attitudes and values which all learners must attain in order to assist them to be successful in life in a variety of contexts and also contribute to their communities and the country as a whole (Janse van Rensburg 1998:29).

According to SAQA (1997:10), the critical outcomes will guide and direct the process of teaching so that learners will be able to:

- identify and solve problems in which responses show that responsible decisions, using critical and creative thinking, have been made
- work effectively with others as a member of a team, group, organisation, community
- collect, analyse, organise and critically evaluate information
- communicate effectively using visual, mathematical and or language skills in the modes of oral and written presentation
- use science and technology effectively and critically, showing responsibility towards the environment and health of others
- demonstrate an understanding of the world as a set of related systems by recognising that problem-solving contexts do not exist in isolation.

In addition, learning programmes had to be developed, so as to contribute to the full development of each learner, the social and economic development of society at large and should assist in making individuals aware of the importance of:

- reflecting on and exploring a variety of strategies to learn more effectively
- participating as responsible citizens in the life of local, national and global communities
- being culturally and aesthetically sensitive across a range of social contexts
- exploring education and career opportunities
- developing entrepreneurial opportunities (SAQA 1997:10).

3.2.1.2 <u>Specific Outcomes</u>

As indicated earlier, the specific outcomes represent knowledge, skills, attitudes and values within the particular context in which they are to be demonstrated.

According to Janse van Rensburg (1998:30), these outcomes are the building blocks which enable learners to achieve overall competence in a particular field and at a given level. He adds that they are called *"specific outcomes"* because they relate specifically to the eight areas of learning which have been identified. As suggested earlier, the specific outcomes were written for each of the eight learning areas and are based on the critical outcomes, hence generic skills are reflected.   It is furthermore noted that provision is made for differentiation between the different phases of learning, which is addressed by different levels of complexity in the processes in which learners engage, and in the kind of evidence through which learners demonstrate the outcomes.

The specific outcomes also focus on what the learner will do and describe the results of learning that are achieved at the end of the learning process, as well as whether an outcome can be applied in another context (Janse van Rensburg 1998:30).

Besides the specific outcomes for each learning area, a rationale incorporating a set of values with reference to the learner society, the learning area and the overall view for education in the country, was also developed, which clarifies the following:

- the importance of the learning area and why it should be included in the curriculum
- the essential elements of the learning area
- how the learning area will contribute to the achievement of the critical outcomes

3.2.1.3   <u>Learning Areas</u>

The learning areas are the domains through which learners in the General Education and Training (GET) phase experience a balanced curriculum. They also serve as a sound basis for developing learning programmes to be implemented at schools (Janse van Rensburg 1998:30).

The following eight learning areas are identified, namely:

- Language Literacy and Communication
- Human and Social Sciences
- Technology
- Mathematical Literacy, Mathematics and Mathematical Sciences

- Natural Sciences

- Arts and Culture

- Economic and Management Sciences

- Life Orientation (Department of Education 1997(b):4).

3.2.1.4 **Assessment Criteria, Range Statements and Performance Indicators**

Criticos, Long, Moletsane and Mthiyane (2002:44) say that the curriculum policy document adds *"flesh"* to the outcomes in the form of assessment criteria, range statements and performance indicators, which in effect ensures progression, depth and level of complexity. An excerpt from the Curriculum 2005 Intermediate and Senior phase policy document is cited in Table 3.1 and Table 3.2 to illustrate logical progression and breadth in the curriculum as suggested by the above-mentioned aspects.

Table 3.1   <u>Natural Sciences: Intermediate Phase</u>

SO1 Use process skills to investigate phenomena related to the Natural Sciences

Assessment Criteria	Range Statements	Performance Indicators
Learners show work in which: 1. Phenomena are identified 2. Investigative questions are formulated 3. A plan of action is formulated 4. Data are collected 5. Data are analysed, evaluated and interpreted 6. Findings are communicated **Learners conduct a focused investigation in which:** 7. Phenomena are identified and questions are posed 8. Situations are analysed and investigative questions are formulated 9. Observations are made 10. Hypotheses are formulated 11. Predictions are made 12. Investigative plans of action are formulated 13. Evidence is collected and recorded 14. Evidence is analysed, evaluated and interpreted 15. Conclusions are communicated	**In developing their work, learners:** • Access various sources of information on phenomena • Use several simple devices for measuring, observing and analysing of data, etc. • Work individually and in groups to brainstorm questions and methods for collection and recording of data or evidence; design a step-wise plan of action; and assign roles to group members • Evaluate their data and findings in terms of precision and appropriateness of methods (fair testing) • Communicate their findings in more than one way, each of which shows understanding of the design of the action plan, the methods used and the analysis of the data and findings **Learners will conduct investigations in each of the four themes – taking either separate themes or a combination – and do at least one explorative and one focused investigation:** • Phenomena selected should be interesting to learners and appropriate to their life experience. Investigations of the selected phenomena should lend themselves to the use of as many aspects of investigations as possible ♦ Earth and Beyond: phenomena such as motion of the earth, planets, rocks, landscapes, seasons and climate… ♦ Life and Living: phenomena such as animals and plants in direct or familiar environments, structure of living things, effects of environment…	**This will be evident when learners:** • Explore, observe (multi-sensory), describe, discuss, debate and write about real objects and resources from the bio-physical and social environment • Ask and answer critical questions by brainstorming either individually or in groups • Assign roles to group members for carrying out the investigation • Review/reflect on the effectiveness of the roles of individuals in the plan of action • Evaluate the sequencing in the plan of action • Collect data with some precision and little teacher support • Consider different ways of classifying/organizing and analysing • Report and present procedures and findings formally and in a structured way (e.g. in a verbal presentation, posters or written report)

Table 3.2   Natural Sciences: Senior Phase

SO1 USE PROCESS SKILLS TO INVESTIGATE PHENOMENA RELATED TO THE NATURAL SCIENCES

ASSESSMENT CRITERIA	RANGE STATEMENTS	PERFORMANCE INDICATORS
Learners show work in which: 1. Phenomena are identified 2. Investigative questions are formulated 3. A plan of action is formulated 4. Data are collected 5. Data are analysed, evaluated and interpreted 6. Findings are communicated **Learners conduct a focused investigation in which:** 7. Phenomena are identified and questions are posed 8. Situations are analysed and investigative questions are formulated 9. Observations are made 10. Hypotheses are formulated 11. Predictions are made 12. Investigative plans of action are formulated 13. Evidence is collected and recorded 14. Evidence is analysed, evaluated and interpreted 15. Conclusions are communicated	**In developing their work, learners** • Access a wide variety of sources of information, data-analysis, etc. • Formulate investigative questions which are relevant to the phenomena and ensure a comprehensive investigative process • Use a wide variety of instruments or devices to collect, measure, analyse and present data and findings • Use individual and group work strategies to formulate detailed plans of action which outline responsibilities, identify priorities and specify methods for the collection and recording of data or evidence • Evaluate and analyse data in terms of validity and appropriateness and techniques used (fair testing) • Communicate their findings in a variety of ways, each of which show logic, coherence and consistency of methods and reasoning **Learners will conduct investigations in each of the four themes-taking either separate themes or a combination-and do at least one explorative and one focused investigation:** • Phenomena selected should be relevant to learners and appropriate to their life experience. Investigations of the selected Phenomena should lend themselves to the use of as many aspects of investigations as possible. - Earth and Beyond: phenomena such as planetary and time; geological time-scale; mining; weather - Life and living: phenomena such as ecosystems; and human body; plant, and/or animal populations; plant physiology; relationships between structure and function - Energy and Change: phenomena such as force and movement; energy sources; renew ability, availibility, pollution…. - Matter and Materials: phenomena such as solidarity, density, magnetism, electrical properties……	**This will be evident when learners:** • Select a phenomenon by accessing a variety of sources of information • Identify specific features of, or factors related to the phenomenon • Formulate investigative questions about these features/factors • Debate various possible plans and discuss their feasibility • Identify the priorities of the action steps, the control of variables, and the specific methods of data collection • Specify their individual responsibilities • Collect data using a wide variety of available technologies and sources of information for collecting data, measuring and analysing • Present data in ways which facilitate analysis and interpretation e.g. graphs which show relation-ships • Critically evaluate different interpretations • Determine the appropriate formulae, graphs and other presenting styles and forms • Use different ways of communicating in structured reports/presentations which justify procedures used and indicate the validity of findings

Criticos et al. (2002:44) also conclude that the tables from the policy documents are proof that teachers are indeed provided with guidance on the following:

- what should be taught within a particular learning area
- the order in which the learning area content and skills should be taught
- the level at which the particular grade should be taught

The assessment criteria assist in explaining in broad terms the constituent parts of the outcome, that is, what learners need to show they can do in order to have achieved the outcome. The range statements add detail about what the teacher needs to teach and at what level of complexity. The performance indicators give more detail than the range statements and help to further differentiate the level of complexity required at each phase (Criticos et al. 2002:47).

Janse van Rensburg (1998:36) also points out that, while it is possible that the assessment criteria for a specific outcome may read the same for different phases and grades, they will be differentiated in the range statements through the descriptions of progressively increasing complexity and sophistication, as learners progress to higher grades and should provide a clear focus for assessment. He further explains that the range statement are an expansion and explanation of the critical terms and categories of the assessment criteria. The nouns and verbs of the assessment criteria are described in sufficient detail to assist in the planning of learning programmes and assessment strategies, thus the range statements describe the range of application and circumstances or context in which outcomes must be demonstrated.

Like, Janse van Rensburg (1998:37), Criticos et al. (2002:44) remark that, although the assessment criteria and range statements provide broad indications of what evidence learners need to present before they are seen as having achieved the specific outcomes, the performance indicators provide more detailed information about what learners should know and be able to do in order to show achievement.

The performance indicators provide the details of the content and processes that learners should master, as well as the details of learning contexts in which learners will be engaged. In effect, the performance indicators help in the planning of the learning process, the tracking of progress and the diagnosing of achievement that the learner finally reaches and whether the learner has achieved the outcomes or not. The performance indicators therefore allow statements to be made about the quality of achievement, that is, whether the achievement is at the level required or whether the learner has surpassed the level. Janse van Rensburg (1998:37) cites an example illustrated by the Department of Education (1997(e):13).

Table 3.3   Economic and Management Sciences

Specific Outcome 1	Engage in entrepreneurial activities
Assessment Criteria	Needs in societies are identified
Range Statement	Research and data collection, methods, e.g. observation and questionnaires Means to satisfy needs e.g. buying, selling and producing Local (home, classroom, school, community)
Performance Indicators	This will be evident when learners: • identify basic human needs, e.g. food, housing, water, clothing, air, money and other needs, e.g. love • collect and report on data of various needs in the immediate surroundings • demonstrate ways in which the different products can satisfy needs in the immediate surrounding, e.g. buying, selling, earning money, producing, consuming

He furthermore provides the following activities which could be facilitated by the teacher:

- The drawing of a flow diagram to identify basic human needs
- Adding pictures to the flow diagram
- Making posters of the basic human needs and items to satisfy these needs
- Role play buying and selling.

It is thus gleaned that the performance indicators, indeed describe the level and quality of performance to be demonstrated by the learner at a specific phase. Janse van Rensburg (1998:38), however, says that it must be remembered that the specific outcome, the assessment criteria, the range statements and the performance indicators should always be seen as a whole.

As pointed out, the eight learning areas identified for the General Education and Training Band, form the basis from which the integrated learning programmes for the Foundation, Intermediate and Senior Phases can be developed. Wilkens (1998:47) emphasises that the learning programmes are compiled by integrating Specific Outcomes and Assessment Criteria from all eight learning areas. It is therefore apparent that the curriculum in the different phases is not learning area-bound, but is an integrated, trans-disciplinary approach, across learning area boundaries. This being the case, the curriculum allows for progressive opportunities for development, leading to a gradual refinement of children's perceptions which responds to the needs of the whole child.

Janse van Rensburg (1998:39), furthermore, reminds one that a balance needs to be struck between knowledge, skills, values, contexts and processes within the learning programmes in the different phases. This implies that, over a period of time, learning programmes should cover all the specific outcomes which have been formulated in the learning programme.

He also points out that outcomes-based teaching should indeed focus on the learner and on the knowledge, skills and values which he or she should acquire at the end of the learning experience. Therefore, the choice of outcomes will depend on the following:

- the context in which the learner finds him or herself
- the uniqueness of the learner, as not all learners learn at the same pace and they come from different backgrounds.

3.2.1.5   Phase organisers

To organise and facilitate planning, organisation and assessment in a specific phase, the policy documents in each of the phases stipulate the following phase organisers in table 3.4:

Table 3.4   Phase Organisers

FOUNDATION PHASE	INTERMEDIATE PHASE	SENIOR PHASE
Communication in our lives Society Environment Learner as entrepreneur Personal development Health and Safety	Communication Creative participation Environment Enquiry Personal Development	Communication Culture and Society Environment Economy and development Personal Development and Empowerment

(Department of Education 1997(c):20);   (Department of Education 1997(d):26); (Department of Education 1997(e):25,26)

Janse van Rensburg (1998:36) and Wilkens (1998:57) point out that these phase organisers are all equally important and serve as a useful tool for grouping specific outcomes when planning.

3.2.1.6   Learning area organisers

In some of the learning areas, learning area organisers are also identified to serve as tools to develop coherence within the learning area, as well as to act as indicators to other learning areas of what could be addressed, which in turn facilitates integration. Janse van Rensburg (1998:3) and Wilkens (1998:48) refer to the following two learning areas as illustrated in table 3.5, which prescribe learning area organisers:

Table 3.5   Learning Area Organisers

HUMAN AND SOCIAL SCIENCES
- Environment resources and development
- Citizenship and physics
ECONOMIC AND MANAGEMENT SCIENCES
- Economy and its environment
- Economic growth and development
- Entrepreneurship
- Management skills
- Finance
- Administration

3.2.1.7   Learning programmes

Janse van Rensburg (1998:36) also clarifies the difference between a learning area and a learning programme very aptly. He says that the eight learning areas lead to the development of the learning programmes which are the nodal points around which learning should take place. They are seen as the vehicles through which the curriculum is implemented in the school.

He, says that sets of learning activities are built into the learning programme in which the learners are involved, in order for them to achieve the specific outcomes. It is furthermore suggested that these learning programmes are developed as provincial curriculum statements which reflect an integrated approach to learning and teaching, as integration lies at the heart of OBE as mentioned in 2.5.1.3.

The following adapted table depicts the integrated learning programmes in each of the phases in the GET Band (Department of Education 1997(c): 23), (Department of Education 1997(d): 28) and (Department of Education 1997(e): 28).

Table 3.6   Integrated Learning Programmes

FOUNDATION PHASE	INTERMEDIATE PHASE GRADES (4,5,6)	SENIOR PHASE GRADES (7,8,9)
i. Numeracy	i. Language Literacy and Communication	i. Language Literacy and Communication
ii. Literacy	ii. Mathematical Literacy and Mathematical Sciences	ii. Mathematical Literacy, Mathematics and Mathematical Sciences
iii. Life-skills	iii. Natural Sciences and Technology	iii.Natural Sciences
	iv. Human, Social Economic and Management Sciences	iv. Technology
	v. Arts, Culture and Life Orientation	v. Human and Social Sciences
		vi. Economic and Management Sciences
		vii. Arts and Culture
		viii. Life Orientation

It is important to note that the learning programmes are not the same as the learning areas, since the learning areas only form the core around which the programmes are developed.

Wilkens (1998:47) illustrates the composition of the three Foundation Phase learning programmes as follows:

| LLS | HS | TECH | MLMMS | NS | A&C | EMS | LO |

LITERACY

| LLC | HSS | TECH | MLMMS | NS | A&C | EMS | LO |

NUMERACY

| LLC | HSS | TECH | MLMMS | NS | A&C | EMS | LO |

LIFE SKILLS
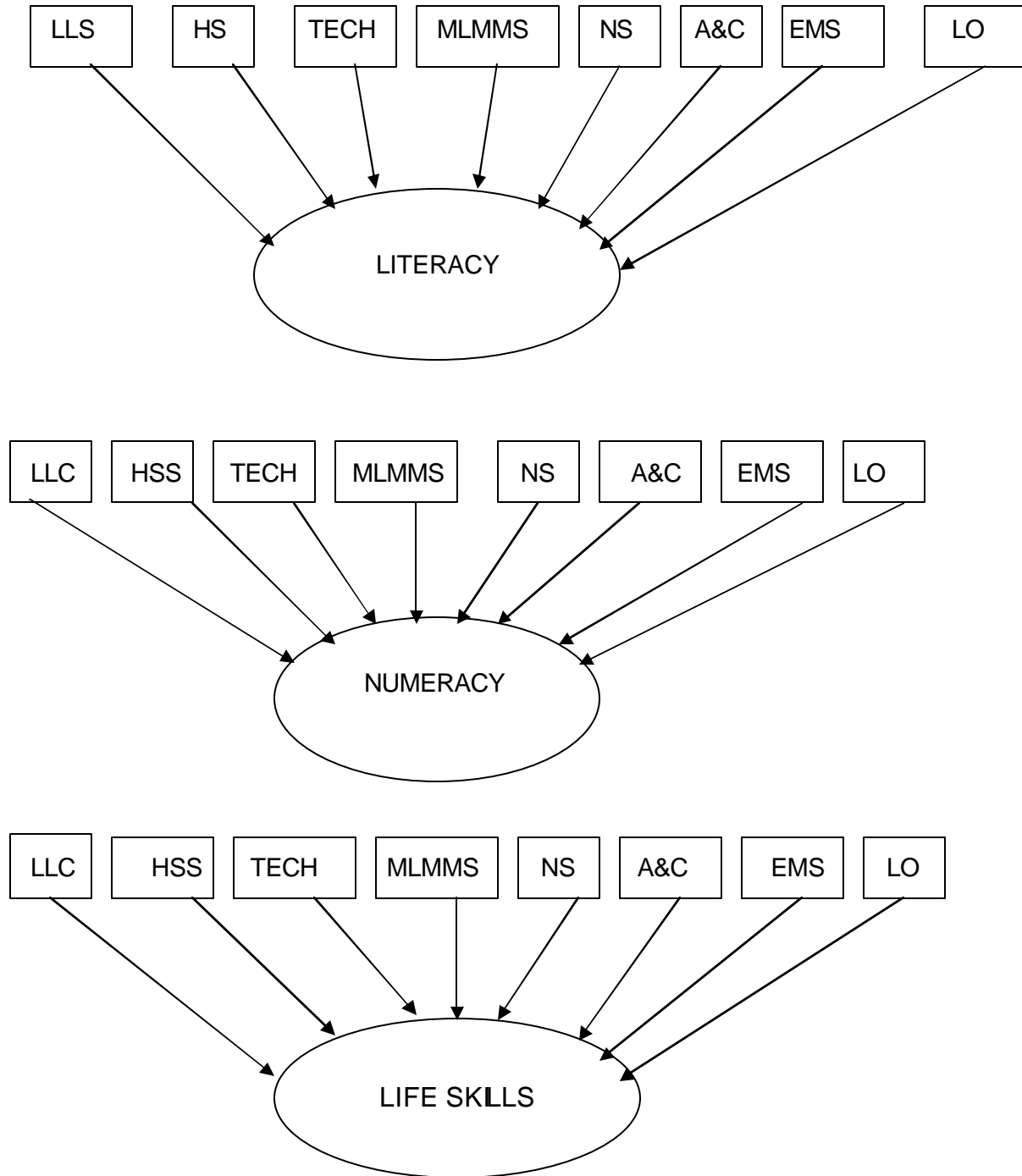
Table 3.6 also illustrates the Senior Phase policy document which specifies the Curriculum for Grades 7, 8 and 9. It forms a bridge between the integrated approach in the first years of schooling and the focus-based approach in the Further Education and Training Band.

Learning programmes include the following design features:

- critical outcomes
- specific outcomes
- assessment criteria
- range statements
- performance indicators (Janse van Rensburg 1998:36).

Given the fact that learning programmes include the above design features, it becomes evident that learning programmes are sets of learning activities. The activities are derived from a combination of specific outcomes which are embedded in the critical outcomes, as well as assessment criteria, range statements and performance indicators from different learning areas in which learners will be involved.

3.2.1.8   Scheduling of work

The timetable of the traditional teaching approach changes dramatically within the OBE approach of Curriculum 2005. Whereas pre-scheduled blocks of time were allocated for specific purposes, such as subject periods for the week, semester and year, the OBE approach refers to notional time, where no specific number of hours is allocated to any learning area (Wilkens 1998:64).

According to SAQA, (1997:10), notional hours *"are an informed estimate of the average time an average learner, entering with the correct level of assumed knowledge, would take to master the specific outcomes of a unit standard. Time here refers to the time spent on learning, including assignments, home study, etc. not just the time for direct tuition (contact time)"*.

Janse van Rensburg (1998:40) states that notional time includes the teacher's preparation time, actual contact time, as well as the learner's efforts to master the outcome. He says that all available time should not be allocated to the specific learning programmes, but provision should be made to allow a part of notional time to flexi-time, which the teacher could use for remediation, enrichment and enskilling, In addition, flexi-time allows schools to identify time, resources, staff and organisation to activities and issues of general importance for the phase as a whole.

Table 3.7 reflects the notional time as prescribed in the following policy documents: (Department of Education (1997(c):23), (Department of Education (1997(d):28) and Department of Education 1997(e): 28).

Table 3.7 **Work schedule for the GET Band (C2005)**

FOUNDATION PHASE		INTERMEDIATE PHASE		SENIOR PHASE	
LEARNING PROGRAMME	**NOTIONAL TIME**	**LEARNING PROGRAMME**	**NOTIONAL TIME**	**LEARNING PROGRAMME**	**NOTIONAL TIME**
Literacy	25%	Language, Literacy and Communication	35%	Language, Literacy and Communication	20%
		Mathematical Literacy, Mathematics and Mathematical Sciences	15%	Mathematical Literacy, Mathematics and Mathematical Sciences	13%
Numeracy	25%	Natural Sciences and Technology	15%	Natural Sciences	12%
				Technology	10%
		Human, Social, Economic and Management Sciences	15%	Human and Social Sciences	10%
Life Skills	25%			Economic and Management Sciences	10%
		Arts, Culture and Life Orientation	15%	Arts and Culture	10%
				Life Orientation	10%
FLEXI TIME	25%	FLEXI TIME	5%	FLEXI TIME	5%

3.2.1.9 Outcomes-based Assessment

The Foundation Phase, Intermediate Phase and Senior Phase policy documents reflect that learning, teaching and assessment are inextricably linked as it is through assessment that the efficacy of the teaching and learning process is evaluated. Gultig, Lubisi, Parker and Wederkind (1999:12) point out that a crucial issue in outcomes based learning is the attainment of the outcomes which have been made explicit.

Another important feature of outcomes-based assessment is that the learner's progress is measured against criteria that indicate attainment of learning outcomes, rather than against other learners' performances. All learners who meet criteria for achieving specified learning outcomes receive credits. This implies that the emphasis on assessment will be criterion-rather than norm referenced (Gultig et al. 1999:12), (Criticos et al. 2002:93).

Learners who do not meet the criteria to attain the standards, should be able to apply for re-assessment whenever they are ready to do so and provision should be made for special support to learners who repeatedly fail to meet the specified standards. Gultig et al. (1999:12) say that because learners are aware of what will be required of them from the very beginning, the assessment process is transparent and the assessors can be held accountable for fair assessment in terms of the explicit criteria. In addition, the outcomes registered as part of unit standards on the NQF is open to public scrutiny and will be reviewed on a regular basis.

What is abundantly clear, is that C2005 and the above mentioned design features signalled a complete break from the flawed curriculum of the past. The Curriculum Review Committee Report on C2005 (2000:37) also comments on the matter and asserts that the curriculum appears to have had two positive consequences.

It firstly provided a symbolic break with the past and secondly it challenged all those involved in the planning and delivery of education to think anew about things that had been taken for granted, as well as it forced thinking on what should be taught and how it should be taught and assessed.

C2005, was implemented in May 1997 as mentioned in 2.5.4 and implemented amidst much controversy as alluded to earlier.

3.3   Implementation plan for Curriculum 2005

Professor Bengu, the then Minister of Education, announced the introduction of the new curriculum as early as 1995 and scheduled full implementation, i.e. Grades 1 to 12, by the year 2000. However, in 1997 the Council of Education Ministers took a decision to phase in OBE in both the General and Further Education Bands. This implementation strategy detailed a trajectory which was envisaged to commence with implementation in Grade 1 in 1998, culminating with the awarding of the first Further Education and Training Certificate (FETC) to the Grade 12 cohort of learners in 2005. According to the Curriculum Review Committee Report (2002:1), this was the main reason for the popular brand name, *"C2005".*

The Curriculum Review Committee Report on C2005 (2000:3) affirms that a comprehensive plan for implementation had indeed been produced and was designed to take place between 1997 and 2005, but was revised several times. Later it was announced that the new curriculum would be introduced in Grades 1 and 7 classrooms in January 1998, but a later proposal subsequently limited implementation to Grade 1 classrooms only.

Many say that from the start the process of implementation was hampered by grave difficulties. The Curriculum Review Committee Report (2003:3) also remarks that, despite enormous political will and effort, social demands were seemingly not matched by financial, physical and human capacity in the system to implement the curriculum according to schedule. It also points out that national pilots were planned to run from Grade 1 to 3 and 7 to 9 in the second half of 1997, in preparation for full-scale implementation starting in 1998, continuing to 2001. A national pilot study, supported by an in-service education and training (INSET) programme, aiming at reaching all 300,000 teachers in the system, was also planned.

This, unfortunately, did not materialise, as protests by provincial departments forced the scope of implementation being limited to Grade 1 in 1998. The implementation of C2005 in the first grade of the senior phase; this is Grade 7, was postponed from 1999 to 2000. Pilots in Grades 3 and 7 were begun in 1999 and full implementation took place in the year 2000. In the year 2000, a pilot study for Grades 4 and 8 also took place, although all provinces did not partake in the study.

In the same year, Professor Kader Asmal, who became Minister of Education in 1999, initiated a listening campaign to solicit the views of teacher organizations and non-governmental organizations on the progress that had been made since 1994 and to ascertain the challenges and obstacles that lay ahead in the system. An overwhelming majority of comments expressed enormous frustration with the design of the curriculum and the way it was being implemented. This resulted in Minister Asmal setting up a Review Committee to streamline and strengthen the curriculum, focusing on elements of the design, structure and implementation (Curriculum Review Committee Report on C2005 2000:3).

3.4 Establishment of the Curriculum Review Committee on 2005

The Minister announced the establishment of the Curriculum Review Committee on the 8 February 2000. The panel of 12 were tasked with evaluating how the curriculum has been implemented in the classrooms.

3.4.1 <u>Terms of Reference of the Curriculum Review Committee</u>

According to the Report of the Review Committee on C2005 (2000:4), the committee was required to investigate the following;

- Steps to be taken in respect of the implementation in Grades 4 and 8 in 2001
- Key success factors and strategies for a strengthened implementation of the new curriculum
- The structure of the new curriculum
- The level of understanding of outcomes-based education

In a press announcement, on the appointment of the Review Committee on the 8 February 2000 in Cape Town, the report suggests that it became very clear that Minister Kader Asmal, sought *"a substantive review of the new curriculum and its implementation, the rationale for and viability of the learning areas, learning programmes and phase organisers, the range of knowledge to be covered, the assessment criteria and expected levels of learner achievement and the rationale for and the viability of the sixty six specific outcomes to be achieved in relation to the critical outcomes"*.

The Curriculum Review Committee on C2005 (2000:5) say that their brief included an evaluation of and recommendations on the implementation of the new curriculum in the Foundation Phase, as well as in Grade 7. This would cover field testing, teacher orientation and follow-up training, professional support services within provincial systems, classroom practices, the quality and quantity of learning materials in support of the new curriculum and the level of understanding of the new curriculum. What was very clear, C2005 had to be reviewed and not OBE. The Minister, furthermore, indicated that the time frame for the review would only be until the end of May 2000.

3.4.2   Methodology used for Review of C2005

Given the detailed brief of the Minister, the Review Committee found it necessary to examine as much available evidence as possible which is set out in the Report on the Review Committee on C2005 (2000:5-6) as follows:

- document review
- site visits and interviews
- public submissions

3.4.2.1   Document Review

The document review included official and unofficial sources, reports and evaluations produced for and commissioned by government departments, research agencies and foundations, as well as theses and articles written for academic and wider audiences. The Curriculum Review Committee acknowledged that there were limitations in the kinds of data collected from documents, the most obvious limitation being that findings were often summaries of perspectives of the successes of C2005 or evidence of the perspectives of the affective responses to implementation.

Although the validity or reliability of the perceptions were not in all instances verified, the Curriculum Review Committee concluded that, because many of the reports came to similar conclusions, this in itself could be regarded as proof of the relative validity and reliability of the perceptions and experiences described in the reports. They also say that, despite the limitations of time under which the research for the reviewed documents, they do *"testify admirable seriousness of purpose, vitality and commitment in the local research community"*.

3.4.2.2   <u>Site visits and Interviews</u>

Sites were visited and interviews were conducted to probe gaps and explore questions that emerged in the document review. This included visits to selected schools and focus group interviews with principals, heads of departments and teachers. Discussions and interviews were also conducted with national, provincial, and district officials, as well as trainers and publishers involved in the implementation of C2005.

3.4.2.3   <u>Submissions</u>

A call was made for submissions in both the print media and radio, as it is pointed out that care had to be exercised, for it is generally believed that it is usually only the voices of the powerful and literate that find their way into the realms of evaluation and policy-making. The submissions, however, yielded responses from a wide range of practitioners, including individual teachers, past and current principals, a range of primary schools, non-governmental organisations, trainers involved in C2005, teachers' associations and unions, tertiary institutions and publishers.

3.4.3   <u>Findings of the Curriculum Review Committee on C2005</u>

After scrutiny of the various comments, submissions and interaction through classroom visits and interviews with various stakeholders, as mentioned above, the Curriculum Review Committee reported on the following (2000:18):

3.4.3.1   <u>Strong support for principles of OBE</u>

Although the understandings of what C2005 and OBE is, were varied, the majority of those who were exposed to OBE, supported the principles of the new curriculum.

3.4.3.2 **Structure and design of Curriculum 2005 skewed**

Many of the conceptual confusions, lack of clarity in policy documents and problems with regard to the implementation of C2005 stemmed from the flaws in the basic structure and design of the curriculum. Dissatisfaction focused on three key areas:

(a) **The complex language and confusing terminology used in C2005 documentation.**

Comments in submissions pointed to three problems:

- The unnecessary use of unfamiliar terms to replace familiar ones
- the lack of a common understanding and use of C2005 terminology as well as
- the use of meaningless jargon and vague and ambiguous language.

(b) **Overcrowding of the Curriculum:**

The inclusion of eight learning areas in the GET band meant insufficient time for the development of effective reading skills and grounding of foundational mathematics and core concepts in the sciences.

(c) **Weakness in Progression, pace and sequencing in design:**

The C2005 design structure was found to be strong
on integration and weak on conceptual coherence.
Integration was supported by five design features,
namely; 12 critical outcomes, 66 specific outcomes,
learning programmes, phase organisers and
programme organisers. In contrast, conceptual
progression had been neglected. The range statements,
performance indicators and expected levels of
performance, which were intended to be progression
features, failed to act as mechanisms which promoted
sequence, progression and pace. This was largely
because curriculum designers attempted to avoid
prescribing content.

These problems suggested that attention needed to be paid to:

- simplifying and streamlining the curriculum and accompanying documentation
- rationalising the design features and reallocating teaching time to languages and foundation mathematics
- enabling promotion of progression, pace and sequencing.

(d)   Lack of Alignment between Curriculum and Assessment Policy

There was a lack of alignment between curriculum and assessment policy, as well as clarity regarding assessment policy and practice. Much time was spent on assessment, leaving minimal time for classroom work and, on the other hand, insufficient attention was given to assessment training, as well as curriculum planning and design.

This suggested:

- the need for the development of a coherent policy document on assessment, aligned with the curriculum, as well as clear guidelines and procedures
- greater attention to assessment in teacher preparation for the new curriculum

3.4.3.3   Implementation of the Curriculum

The following factors are deemed to have hampered the effective implementation of the curriculum:

(a)   Training inadequate

Many problems and difficulties were experienced in the process of training. These related to models, duration and quality of training. Because the focus was on orientation of the new terminology, little attention was given to the substance of OBE.

There were complaints about the cascade model of training and a sense that district trainers themselves, often did not understand C2005, nor did they use the principles of C2005 in their own methodology of training.

Although evidence suggested that training had improved with time and experience, more attention needed to be paid to:

- strengthening and adapting the model or models of training and the duration of teacher preparation
- addressing the quality of the trainers and training materials
- improving the quality of the content and methodology of training
- providing for follow-up in-class support for teachers.

(b) **Learning support materials variable in quality**

Problems with learning support materials in support of C2005, ranged from the availability of materials to quality and utilization. Overall, the use of learning support material was found to be low and the absence of basic resources exacerbated the problem. Lack of classroom space was found to be a major constraint. In the majority of contexts, teachers did not have the time, resources and often skill to develop their own material. All three areas; quality, use and availability were found to require attention.

(c)   Follow-up support insufficient

Teachers felt that officials did not value their work. There was a widespread sense that departments and school management teams provided far too little support and could not support them. In addition, provincial and district capacity to implement C2005 and provide support to teachers in classrooms were hampered by problems in the organisation of curriculum support structures, shortages of personnel, inadequate expertise of personnel and lack of resources for support of C2005. This indicated a need for:

- Reorganisation and consolidation of curriculum structures at national, provincial and district levels.
- The reinforcement of personnel.
- Adequate provision of resources.

(d)   Level of understanding variable

There were variations in the understanding of what C2005 is within and between schools, as well as amongst teachers, trainers and officials. Although many endorsed the underlying principles; learner-participation, activity-based education, relevant, flexibility, anti-bias, holistic development, inclusion, critical thinking and integration, there were equally many who were confused about the design and implementation of C2005. It was also found that, although C2005 had generated a new focus on teaching and learning, teachers had a shallow understanding of the principles of OBE.

Generally, there was substantial support for the principles of OBE, but teachers were found to be undermined in their ability to implement C2005 by the lack of resources, inadequate training and policy overload.

(e) **Limited transfer of learning into classroom practice**

Due to varying levels of understanding, combined with difficulties of implementation in overcrowded classrooms, insufficient training, learning support materials and support, overload and lack of clear planning and assessment, there was found to be little transfer of learning in the classroom.

3.4.3.4 **Pace and scope of implementation**

Scrutiny of the various sources confirmed that timeframes were unmanageable and unrealistic. There was widespread agreement that implementation had been too rushed and therefore inadequate. It was found that C2005 was implanted before it was ready for presentation and without the foundations for good, inspiring training, effective monitoring and meaningful, on-going support processes being put in place.

3.4.4 **Recommendations of the Curriculum Review Committee**

Given the listed flaws, the Curriculum Review Committee (2000:21-23) proposed a revised and streamlined curriculum within an outcomes-based framework, which should be implemented within manageable time-frames. The following specific proposals fell into the following three major categories:

3.4.4.1 **Structure and Design of the Curriculum**

- Human Rights education and education for civic responsibility should be infused throughout the curriculum, with special attention to anti-discrimatory, anti-racist, anti-sexist and special needs issues.
- The production of simplified National Curriculum Statements for Early Childhood Development (ECD), General Education and Training (GET), Further Education and Training (FET) and Adult Basic Education and

Training (ABET). The National Curriculum Statement should express in clear terms what is to be learnt and at what level it is to be assessed.

- A streamlined National Curriculum Statement should include critical outcomes, learning area statements, learning outcomes and assessment standards. This meant dropping the 66 specific outcomes, assessment criteria, phase and programme organisers, range statements, performance indicators and expected levels of performance. The emphasis should be on clear and accessible documentation.

- Reducing the overload by rationalising learning areas from 8 to 6 in the GET band, which implied the following:

  - Languages
  - Mathematics
  - Science and Technology
  - Social Sciences (History and Geography)
  - Arts and Culture
  - Life Orientation

Three learning programmes should be specified in the Foundation Phase and six in the Intermediate and Senior Phases. Conceptual coherence should be promoted by specifying learning outcomes and assessment standards by grade and by providing more time for Languages and Mathematics in the GET band. Integration should be promoted by using critical outcomes and assessment exemplars, across learning areas, as well as within learning areas, with learning area statements and learning programmes.

3.4.4.2   Implementation of the Curriculum

The Curriculum Review Committee Report (2000:22-23) highlights the following three key areas with regard to implementation:

(a)   Teacher orientation, training and support

Firstly, there were long- and short-term proposals premised on the idea that in the medium- and long-term, teacher preparation and development needed to be located in higher education. In the short-term, a special cadre of national, provincial and district trainers, working collaboratively with non-governmental organisations (NGOs) and higher education, needed to be trained. A co-ordinated national strategy for the preparation of teachers is further required, building on existing proposals for the preparation of teachers, in a manner which links pre-service and in-service training of teachers with the Norms and Standards for Educators Framework, labour agreement for 80 hours in-service education and training (INSET) and support policies contained in the Education Management Development Framework.

(b)   Learning support materials

Secondly, proposals to address the quality of learning support material included recommendations that the Department of Education should provide clear statements to publishers and that the textbooks should be produced and evaluated in line with these statements. The Department of Education should also cease being involved in the production of curriculum support materials, instead, these are to be produced by dedicated units or institutes, as proposed in the 1995 White Paper on Education and Training.

Proposals to address the use of learning support material should include the phasing
out of "macro planning" and the training of teachers in the use of learning and support materials, especially the use of textbooks.

(c) **National, Provincial and District Support**

Thirdly, in order to strengthen support for teachers in classrooms, it is necessary to realign, reorganise and consolidate curriculum structures. In effect, the unit driving C2005 should be enhanced, so that school principals, teachers and managers could be trained as curriculum developers. In addition, collaborative relationships should be promoted between curriculum and support officials, non-governmental organisations, as well as higher education institutions. The necessary resources to successfully implement the curriculum should also be provided.

The Curriculum Review Committee Report (2000:23) emphatically concluded that the strengthened implementation of a streamlined curriculum depended on the recommended changes for teacher preparation, learning materials and departmental support for teachers in the classroom. They also say that cutting across the successful implementation of a revised curriculum supported by trained teachers, good learning materials and effective departmental support, there are three main issues, namely:

- adequate resources
- feasible time-frames
- regular monitoring and review

The Curriculum Review Committee Report (2000:23) is of the opinion that the absence of these features severely hampered effective implementation. In addition, these problems were also linked to a lack of co-ordination at national and provincial level, and therefore, it was suggested that co-ordination needed to be strengthened at both levels.

3.4.4.3   **Pace and Scope of Implementation**

Given the above-mentioned findings and recommendations, it became increasingly evident why C2005 could not continue in its present form. It was also clear that implementation could not continue at the same pace and within the same rigid time-frames, hence the Curriculum Review Committee Report (2000:23) called for the implementation of the streamlined curriculum, with due regard to the pressures already present in the system, as well as the time required for changes in the production of the revised curriculum, teacher orientation, training and development, learner support material and provincial support.

It was also concluded, that Grades 4 and 8 were linked to the need for a revised, improved curriculum, on the one hand and to capacity in the system to continue with C2005 in its initial form, on the other. They therefore, recommended the phasing out of the implementation of C2005 and the phasing in of the implementation of the new revised curriculum, within manageable time-frames.

The Review Committee proposed that Grade 4 should continue until it is overtaken by the revised, streamlined curriculum and that Grade 8 would continue on a modified basis. The modified form entailed a reduction of the learning areas from 8 to 6, and the learning outcomes informed by the National Curriculum Statement.

A call was made for the National Curriculum Statement, which provided the framework for teaching and learning from Grades R-9, to be developed by June 2001. Once this had been approved, teachers would begin to orientate their teaching accordingly, paying special attention to learning outcomes and assessment standards for each grade.

The proposal, furthermore, advocated a high knowledge and high skill curriculum as a means to promote social justice, equity and development. In order for this to materialise, it was suggested that the following two considerations should drive what is taught and learnt in the GET band.

3.4.4.4 Infusion of Human Rights

It was suggested that human rights education and education for civic responsibility should be infused through all the learning areas. Issues of anti-discrimination, anti-racism, anti-sexism and special needs education required particular and enhanced attention throughout the curriculum and the implications of this should be prioritised and spelt out for all learning areas.

3.4.4.5 Relevant subject content

In addition, all learning areas should go beyond the limited and narrow pre-C2005 curriculum. Learners should be afforded the opportunity to apply what is learnt to *"authentic"* problem situations and so be made relevant and applicable to their lives.

3.5 Revision of the National Curriculum Statements

Given the detailed findings, which highlighted major flaws, it came as no surprise when in June 2000, the Council of Education Ministers agreed that the Statement of the National Curriculum for Grades R-9 should be revised in accordance with the recommendations of the Review Committee to streamline and strengthen Curriculum 2005 (Mseleku 2002:2).

3.5.1 <u>The Ministerial Project Committee</u>

A Ministerial Project Committee was then established for the task. The revision of C2005 was begun in January 2001 with approximately 150 curriculum developers from various stakeholders in education with a clear brief from cabinet which resolved that:

> "The development of a National Curriculum
> Statement, which must deal in clear and
> simple language with what the curriculum
> requirements are at various levels and
> phases must begin immediately.
> Such a Statement must also address
> the concerns around curriculum
> overload and must give a clear
> description of the kind of learner in
> terms of knowledge, skills, values
> and attitudes – that is expected at
> the end of the General Education
> and Training band"
> *(Cabinet Resolution 2002:6).*

3.6 *<u>The Revised National Curriculum Statement</u>*

On the 30 July 2001, the Draft Revised National Curriculum Statement for Grades R-9 was released for public comment for a period of three months. In November, public hearings were held and once the public comments and contributions at the public hearings were received and analysed, the working groups of the Ministerial Project Committee were re-convened in December 2001 to incorporate changes that would bring about improvement (Mseleku 2002:2).

The Revised National curriculum Statement (RNCS), which is the product of 18 months of work by educationists throughout the country, was introduced in an overview document that outlines the key principles of the RNCS. According to Emilia Potenza (2003:7), the overview document explains that the RNCS:

- *Highlights the relationship between the principles and practices of social justice, respect for the environment and human rights, as defined by the Constitution.*
- *Emphasises the outcomes-based approach. This implies that the process of learning is as important as the content.*
- *Aims at the development of a high level of skills and knowledge by all.*
- *Is designed to be clear and accessible both in its design and language.*
- *Aims to achieve a balance between progression and integration which was lacking in the original formulation of C2005.*

The RNCS overview document also reminds one, that the RNCS is not a new curriculum but a streamlining and strengthening of C2005, as it keeps in tact the principles, purposes and thrust of C2005 and affirms the commitment to outcomes based education (Department of Education 2002(d):6).
On the 20 March 2002, cabinet approved the publication of the RNCS (Grades R-9) as government policy (Department of Education 2002(d):6).

3.6.1   *The Structure and Design of the Revised National Curriculum Statement*

As alluded to earlier, the Curriculum Review Committee found that C2005 was over designed and under specified, hence teachers did not have a clear understanding about what they were supposed to teach in each learning programme, in each grade. To remedy the situation, except for the critical and developmental outcomes, all the other design features of the original version of C2005 will be phased out as the RNCS is phased in (Potenza 2003:7).

3.6.1.1   *Learning Area Statements*

According to the Department of Education (2002(d):13) each Learning Area Statement consists of the following three sections:

- *An introduction which introduces the National Curriculum Statement and the particular learning area with its goals and unique features.*
- *A section on learning outcomes and assessment standards, which expresses the requirements of learners by grade.*
- *A section or assessment which outlines principles and guidelines for assessment, as well as make suggestions for recording and reporting of assessment.*

(a) **_Learning Areas_**

The eight learning areas have been retained, although the Curriculum Review Committee originally recommended rationalising the learning areas to six, as pointed out in 3.4.4.1. A significant observation in this regard is, although the eight learning areas have been retained, there have been three name changes:

- *Language Literacy and Communication has changed to Languages.*
- *Mathematical Literacy, Mathematics and Mathematical Sciences becomes Mathematics.*
- *Human and Social Sciences is renamed Social Sciences.*

(b) **_Learning Outcomes_**

Like the specific outcomes, the learning outcomes (LOs) are derived from the critical and developmental outcomes. According to Potenza (2003:7), they are similar in weight to the specific outcomes. They also specify the broad knowledge or concepts and skills which should be taught in each learning area. She also points out that in some learning areas, the same LOs apply across all grades. In other learning areas, new LOs are introduced either in the Intermediate Phase or the Senior Phase.

(c) **_Assessment Standards_**

The assessment standards describe the level at which learners should demonstrate their achievement of the learning outcomes and the ways which implies the depth and breadth of demonstrating their achievement. An important feature is that assessment standards are grade specific and show how conceptual progression will occur in a learning area.

They also embody the knowledge, skills and values required to achieve learning outcomes (Department of Education 2002(d):14).

When comparing the original version of C2005 to the RNCS, it is evident that apart from the detailed guidance which is prevalent in the learning area statements, the design features are reduced drastically as was proposed by the Curriculum Review Committee.

Table 3.8 illustrates the difference between the two versions.

Table 3.8 **Difference between original version of C2005 and the Revised National Curriculum Statement**

Original C2005	*Revised National Curriculum Statements*
Critical and Developmental Outcomes	*Critical and Developmental Outcomes*
	Learning Area Statements
Specific Outcomes	*Learning Outcomes*
Assessment Criteria	*Assessment Standards*
Range Statements	
Performance Indicators	
Expected Levels of Performance	
Phase Organisers	
Programme Organisers	

3.6.1.2 *Learning Programmes*

The RNCS for Grades R-9 will, like the original version, also be implemented in schools by means of learning programmes. These learning programmes are also structured and systematic arrangements of activities that promote the attainment of learning outcomes and assessment standards for the phase.

An interesting observation is that the difference between the RNCS and the learning programmes is clearly articulated by the Department of Education in the RNCS overview document (2002(d):15). It points out that, whereas the RNCS stipulates the concepts, skills and values on a grade-by-grade basis, learning programmes specify the scope of learning and assessment activities per phase. Learning programmes also contain work schedules that provide the pace and sequencing of these activities each year, as well as exemplars of lesson plans to be implemented in any given period. The above-mentioned document also stresses that the underlying principles and values of the RNCS also underpin the learning programmes.

In addition, the same document clearly states that the learning programmes must ensure that all learning outcomes and assessment standards are effectively pursued
and that each learning area is allocated its prescribed time and emphasis. As with the original version of C2005, the learning programmes in the RNCS are also based on relationships amongst learning outcomes and assessment standards, without
compromising the integrity of learning areas.

(a) *Learning Programmes per phase*

The learning programmes stipulated by the Department of Education (2002(d):15-16) in each of the phases are as follows:

Foundation Phase:

- *Literacy*
- *Numeracy*
- *Life Skills*

Intermediate Phase:

> *In this phase, Languages and Mathematics are distinct learning programmes. Schools are, however, given the freedom to decide on the number and nature of the other learning programmes, based on the organisational imperatives of the schools, provided that the national priorities and developmental needs of learners in a phase are taken into account. A significant observation in this regard, is that, in the original version of C2005, five learning programmes were prescribed as stipulated in table 3.6, whereas in the RNCS, schools are given a choice between five or the eight as in the Senior Phase.*

The Senior Phase retains the original eight learning programmes, based on the learning area statements, namely:

- *Mathematics*
- *Language*
- *Natural Sciences*
- *Technology*
- *Social Sciences*
- *Economic and Management Sciences*
- *Arts and Culture*
- *Life Orientation*

(b) ***Learning Programme Teacher Guidelines***

To ensure achievement of national standards set by the RNCS, learning programme teacher guidelines for relevant and appropriate learning programmes have been developed at national level in collaboration with provinces. According to the Department of Education (2002(d):16), these guidelines not only emphasise the principle of integrated learning, but also provide guidance on the achievement of an optimal relationship between integration across learning areas and conceptual progression from grade to grade, which implies guidance on progression, pace and sequencing.

Although illustrative learning programme documents were forwarded to schools with the implementation of the original version of C2005, the Curriculum Review Committee Report (2000:64) says that it only reached Grade 1 teachers after training had already taken place. The report also cites various other weaknesses which include: illustrative learning programme documents being kept in the principals office, insufficient copies in schools, teachers finding the task of referring to so many documents too time consuming and the documents only being available in English.

In an attempt to rectify these flaws, the Department of Education (2002(d):16) aims to use the learning programme teacher guidelines during training when preparing teachers for the implementation of the RNCS, so that it indeed provides information and guidance on the following:

- *Integration within and across learning areas*
- *Clustering of assessment standards*
- *Relationship between learning outcomes*
- *Time allocation*
- *Assessment*
- *Barriers to learning*
- *Designing learning programmes*

·   *Policy and legislation*

·   *Training, development and delivery*

·   *Resourcing and support*

·   *Planning and organisation*

The Department of Education (2002(d):16) goes on to say that these guidelines will be applied within the context of existing policy and legislative frameworks, such as the six White Papers on Education, the National Education Policy Act 1996, the South African Schools Act 1996, and the Employment of Educators Act 1999.

This being the case, it seems as though these learning programme guidelines, which were absent in the initial stages of implementation of C2005, will indeed guide and direct teachers, principals and administrators, as they will offer a framework to address specific and contextual needs.

3.6.1.3   *Scheduling of work*

Brunton and Associates (2003:C63) refers to the prescripts of the Employment of Educators Act, 76 of 3.2(d) which points out that the formal school day for teachers is 7 hours per day or 35 hours of formal teaching time per week. Hence, the work schedule or time allocation is set out in Table 3.9 by the Department of Education (2002(d):17) as follows:

Table 3.9   *Work Schedule for the GET Band (RNCS)*

PHASE	GRADE	TIME	
Foundation Phase	R, 1 and 2	22hrs	30min
	3	25hrs	
Intermediate Phase	4,5 and 6	26hrs	30min
Senior Phase	7	26hrs	30min
	8 and 9	27 hrs	30min

Table 3.10 also illustrates the formal time allocated in percentages, for the Foundation, Intermediate and Senior Phases as follows:

Table 3.10   **Work schedule for the Foundation, Intermediate and Senior Phases (GET Band) (RNCS)**

FOUNDATION PHASE		INTERMEDIATE PHASE		SENIOR PHASE	
Learning Programme	Time allocation	Learning Programme	Time allocation	Learning Programme	Time allocation
Literacy	40%	Languages	25%	Languages	25%
		Mathematics	18%	Mathematics	18%
Numeracy	35%	Natural Sciences	13%	Natural Sciences	13%
		Social Sciences	12%	Social Sciences	12%
		Technology	8%	Technology	8%
Life Skills	25%	Economic Management Sciences	8%	Economic Management Sciences	8%
		Life Orientation	8%	Life Orientation	8%
		Arts and Culture	8%	Arts and Culture	8%

If the scheduling of work of the original version of C2005 is compared to that of the

RNCS as illustrated above, it is evident that no reference is made to notional time or

flexi-time and much more time is allocated to Literacy and Numeracy, as suggested by the Curriculum Review Committee. The Department of Education (2002(d):17) now stipulates a specified time allocation, as pointed out in table 3.9, for each learning programme per phase, as well as a stipulated percentage of time per learning programme, as set out in table 3.10. It seems though, that all the available time is now allocated to the specific learning programmes, which implies that remediation, enrichment and enskilling will take place within the time set aside for the particular learning programme if it is needed. The learning programme guidelines which are referred to in 3.6.1.2 should assist in time management and also in planning.

3.6.1.4   *Outcomes-based Assessment*

As pointed out in 3.6.1.1 a common guideline on assessment, recording and reporting is contained at the end of each learning area statement. These guidelines point out that assessment should provide indications of learner achievement in the most effective and efficient manner and ensure that all learners integrate and apply knowledge and skills.

It should also assist learners to make judgements about their performance, set goals for progress and provoke further learning (Department of Education 2002(d):76).

(a)   *Alignment between Curriculum and Assessment Policy*

To ensure that the RNCS aligns the curriculum with the assessment policy contained in the Assessment Policy, Government Gazette 19640 of 1998, the following common guidelines are provided in all learning area statements as suggested by the Curriculum Review Committee:

- · *outlines the learning outcomes and their associated assessment standards in each learning area and for each grade in the GET band;*
- · *contextualises the critical and developmental outcomes within the learning outcomes and assessment standards;*
- · *places assessment standards at the heart of the assessment process in every grade as assessment standards describe the level at which learners should demonstrate their achievement of the learning outcome and the ways, that is, the depth and breadth of demonstrating their achievement.*

The Department of Education (2002(d):76) further illustrates the interaction between the design features of the RNCS in the following diagram:

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                    ┌─────────────────────────────────────┐
                    │          CRITICAL AND                │ ↑
                    │    DEVELOPMENTAL OUTCOMES            │
↓     ┌─────────────┼──────────────────────┐              │
      │        LEARNING AREAS              │              │
      │    ┌────────┴─────────────────┐    │              │
      │    │  LEARNING OUTCOMES       │    │              │
      │    │   ┌──────────────────┐   │    │              │
      │    │   │  Assessment      │   │    │              │
      │    │   │  Standards       │   │    │              │
      │    │   │  for each grade  │   │    │              │
↓     │    │   └──────────────────┘   │    │              │ ↑
```
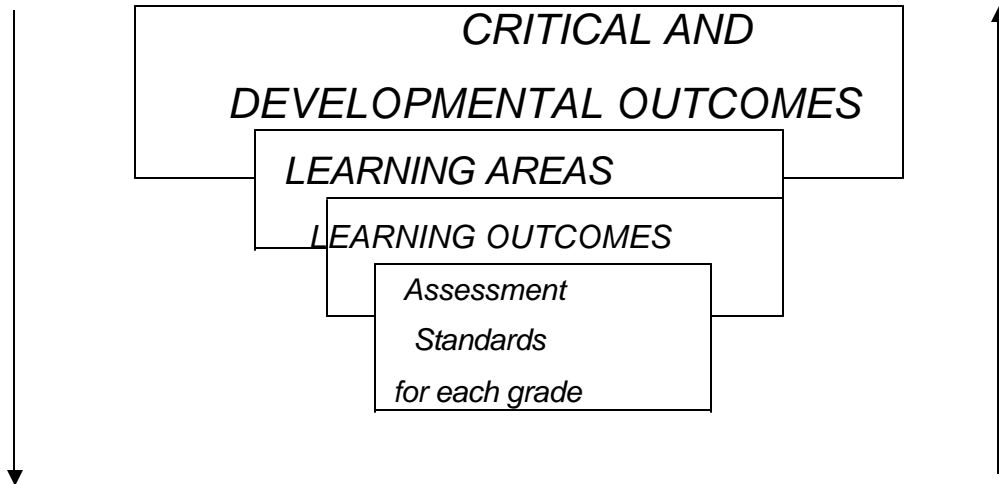
(b)   *Key elements of Outcomes-based Assessment*

OBE is described as a way of teaching and learning which makes it clear what learners are expected to achieve. The principle by which it works is that the teacher states beforehand what the learners are expected to achieve. The teacher's task is to teach in order to assist learners to satisfy the requirements of the assessment standards in the curriculum and the learner's task is to learn or do what the assessment standards expect. Assessment is deemed essential to outcomes-based education because it must be possible to assess when a learner has achieved what is required in each grade.

In addition, in order to assist learners to reach their full potential, assessment should be:

- *transparent and clearly focused*
- *integrated with teaching and learning*
- *based on predetermined criteria or standards*
- *varied in terms of methods and contexts*
- *valid, reliable, fair, learner-paced and flexible enough to allow for expanded opportunities*

The Department of Education, in its Framework on Values and Human Rights in the Curriculum (2003(e):21), also emphasises that assessment in the new curriculum should focus on the provision of multiple opportunities for learners to demonstrate achievement of outcomes and to measure his or her progress against these outcomes.

(c) ***Purpose of Assessment***

Given the above-mentioned focus of assessment, the Learning Area Statement suggests that the main purpose of assessing learners is to enhance individual growth and development, monitor the progress of learners and to facilitate learning. Other types of assessment which are referred to include:

· Baseline Assessment

Baseline assessment usually takes place at the beginning of a grade or phase or lesson, to establish what learners already know. It assists teachers with planning learning programmes and learning activities.

· Diagnostic Assessment

Diagnostic assessment is used to find out about the nature and cause of barriers to learning, experienced by specific learners. It is followed by guidance, appropriate support and intervention strategies.

· Formative Assessment

Formative assessment monitors and supports the process of learning and teaching, and is used to inform learners and teachers about learners' progress so as to improve learning and teaching. Constructive feedback is given to enable learners to develop.

· *Summative Assessment*

This form of assessment gives an overall picture of learners' progress at a given time, for example, at the end of a term or year, or on transfer to another school.

· *Systemic Assessment*

Systemic assessment is a way of monitoring the performance of the education system. One aspect of this is the assessment of learner performance in relation to national indicators. Systemic assessment is conducted at the end of each phase of the GET band. A representative sample of schools and learners is selected provincially or nationally for systemic evaluation.

(d) *Continuous Assessment*

As alluded to earlier, continuous assessment is regarded as the main method by which assessment takes place in the RNCS. It covers all the outcomes-based assessment principles and ensures that assessment:

- · *takes place over a period and is ongoing*
- · *supports the growth and development of learning*
- · *provides feedback from learning and teaching*
- · *allows for integrated assessment which could include assessing a number of related learning outcomes within a single activity and combining a number of different methods*
- · *uses strategies that cater for a variety of learner needs, which could include language, psychological, physical, emotional and cultural*

> · *allows for summative assessment, as the accumulation of the results of continuous assessment activities and provides an overall picture of a learners' progress at a given time.*

In addition, the guidelines also provide direction on the choice of assessment, common tasks for assessment, managing assessment, as well as record keeping and reporting.

After scrutiny of these guidelines, it seems as though the alignment between the curriculum and the assessment policy will be enforced through the learning outcomes and, moreover, the assessment standards, as reflected in the diagram in 3.6.1.4(a), as well as through the clear and simple manner in which it has been articulated, which was certainly not the case in the original C2005 policy documents, as pointed out by the Curriculum Review Committee in 3.4.3.2(d).

3.6.2   *Implementation of the Revised National Curriculum Statement*

According to the Department of Education (2003(a):83), the implementation strategy for the Revised National Curriculum Statements has been based on the recommendations of the Curriculum Review Committee with specific focus on the Foundation and Intermediate Phases which will take place in 2004 and 2005 respectively. It is noted that, unlike the implementation of original version of C2005, much more caution is being taken, as the Department of Education says that the implementation plan for the Senior Phase will be developed, based on the experiences of the Foundation and Intermediate Phases. Key aspects of the National Implementation Strategy for the Revised National Curriculum Statements, as envisaged by the Department of Education (2003(a):83-89) are set out below:

3.6.2.1 <u>Teacher Orientation Training and Support</u>

A Ministerial Committee on Teacher Education has been established to focus on the development of an over-arching framework for teacher education, which will be used to inform teacher development initiatives in the long term. In the mean time, short term needs will be addressed by strengthening the capacity of the Teacher Development Directorate, which will operate on the following agreed-upon principles:

·   *Training should be built on the existing knowledge of teachers; it should not be assumed that teachers are a blank slate.*
·   *The Revised National Curriculum Statements is a simplified document, with much more guidance for teachers.*

In addition, the emphasis on the implementation plan will be less on the re-training of teachers, but more on their proper orientation, which will be sustained by ongoing development programmes, as pointed out earlier. The implementation plan will, therefore, focus on the following two sections:

(a) <u>Awareness and Orientation</u>

Curriculum officials of the Department of Education, as well as six teacher union representatives, who have been seconded to the department, will mount an awareness and orientation campaign amongst district managers, curriculum support officials and GET band officials in all of the nine provinces. The main thrust of the awareness and orientation programme will be to conscientize teachers, that the Revised National Curriculum Statements is an improvement on the original version of C2005.

(b) <u>**Training**</u>

The Department of Education, furthermore, points out that training will be undertaken at three levels, each with a different purpose and method, namely:

·   <u>**District officials**</u>

District-based, professional support staff, who will be expected to provide on-going support to teachers, who will receive approximately eight days of training broken down into two sessions, as well as complete two assignments. An interesting feature of the training is that the Department of Education has agreed to using mixed modes of delivery, so that officials will not be taken away from their posts for long periods of time.

·   <u>**School Principals**</u>

The school management team members, comprising of 33,000 school principals and their respective deputies and heads of department, will be trained on a similar basis to that of the district officials, but with greater emphasis on classroom management and support.

·   <u>**Teachers**</u>

Teachers will be trained likewise, emphasising classroom management and support. The content of the training programme for all three levels will, however, be customised for the specific level of operation but will include the following key priorities:

- *principles of the Revised National Curriculum Statements and their design features*
- *human rights and values in the Revised National Curriculum Statements*

- *assessment policies and procedures*

- *the development of learning programmes*

- *school-based management and support*

- *monitoring and evaluation*

- *the inclusion of learners with special needs*

- *the management of learning support materials, including procurement, utilisation and retention.*

The implementation plan will be managed by a co-ordinating structure established between the Curriculum, Human Resources and Special Programmes and Chief Directorates in the Department of Education, which will be assisted by an Inter-Provincial National Curriculum Implementation Team, comprising of members from the two Heads of Department Committee (Hedcom) substructures, namely, the Curriculum Management Committee and the Teacher Development Committee, including their union representatives, as well as members from the Network of School Management and Governance Co-ordinators (Department of Education 2003(a):83).

At a Curriculum Management Committee meeting which took place on the 10 March 2003, it was confirmed that one team of trainers, per province, would be trained by a National Core team of twenty-one trainers, who in turn would be responsible for the training of all levels of training in the respective provinces.

In effect, table 3.11 illustrates the number of training team members allocated to each province.

Table 3.11 **Training Team Members per Province**

PROVINCE	TEACHER TRN. TEAM	DEPT. OFFICIALS TRN. TEAM	TOTAL PROVINCIAL TRN. TEAM
Eastern Cape	133	44	177
Free State	60	20	80
Gauteng	60	20	80
Kwa Zulu Natal	154	45	199
Limpopo	103	41	144
Mpumalanga	60	20	80
Western Cape	60	20	80
North West	60	20	80
Northern Cape	60	20	80
TOTALS	**750**	**250**	**1 000**

The operational strategy for the RNCS further stipulates that the provincial teams should be a mix of departmental officials, NGO's, Higher Education Institutions, Teacher Unions and Community Organizations, although 65% of the team should consist of appropriate departmental officials.

In addition, the team that will facilitate the preparation of departmental officials, should have at least 65% of its members from Higher Education Institutions.

Other criteria for selection of the training team are:

- *Proven insight of and experience in OBE*
- *Understanding the broader education policies and organisational content*
- *Experiences in developing training programmes and support material*
- *Representivity in terms of gender and race*

(Department of Education 2003(a):1.2).

Given the above, it is apparent that much heed had been given to the recommendations of the Curriculum Review Committee, as the much criticized cascade training model has been replaced by a model whereby only one set of trainers will be responsible for training in a particular province, thus assisting with less dilution of content during training sessions.

(c)   ***Learning Teaching Support Material***

In response to the recommendations of the Curriculum Review Committee on Learning and Teaching Support Material (LTSM) outlined in 3.4.4.2(b), the Department of Education commissioned a policy document on Learning and Teaching Support Material, (2003(d);1) which contends that "the document has been compiled to give a thrust to the recommendations of the Curriculum Review Committee, so that there are norms and standards which clearly delineate the processes and procedures that should be in place to facilitate the smooth and efficient evaluation, selection and procurement of LTSM".

The policy document clearly states that it targets all stakeholders in the LTSM processes and procedures, ranging from National officials, Provincial officials, District officials, educators, parents, publishers and other interested parties.

A thorough scrutiny of the draft policy document further reveals that much guidance is provided on aspects ranging from who should develop LTSM, to acquisition and control of learning and teaching support material, as well as the financial management implication for section 21 and non-section 21 schools.

The former being, schools who have been afforded the powers to manage their own budgets; the latter being schools who are being managed by the respective Provincial Departments in which the school operates, according to the prescripts of the South African Schools Act.

Given the detailed guidance set out in the policy document, the Department of Education, indeed, seems bent on putting all systems into place, before rolling out the Revised National Curriculum Statements.

(d)   National, Provincial and District Support

Perusal of the Revised National Curriculum Statements implementation plan at National level, reveals that an attempt has been made to bring about strengthened capacity and much more co-ordination at this level, with the establishment of the co-ordinating structure which has been established between the Curriculum, Human Resources and Special Programmes Directorates as referred to in 3.6.2.1(b).

In addition, discussions with provincial officials in various provinces, reveal that organogram restructuring in provinces is currently underway in order to bring about strengthened capacity and co-ordination in the light of the recommendations made by the Curriculum Review Committee. In the Northern Cape, e.g. additional posts have been created in each of the phases in the curriculum structure, so as to ensure focused guidance and support to teachers.

3.6.2.2   Pace and Scope of Implementation

As pointed out earlier, it seems as though much more serious consideration has been given to the pace and scope of implementation, as the Revised National Curriculum Statements will be phased in gradually. Table 3.11 reflects the planned phasing in implementation dates for the GET band.

Table 3.12   Phasing in the New Revised Curriculum Statement (RNCS)

2008	Grade 9
2007	Grade 8
2006	Grade 7
2005	Intermediate Phase (Gr. 4-6)
2004	Foundation Phase (Gr. –3)

The Department of Education (2003(a):9) seems to have, indeed, considered mistakes of the past. They state that the implementation plan for the Intermediate Phase and the grade by grade implementation plan for the Senior Phase will be completed, once there has been a reflection on the experiences of the implementation of the Foundation Phase in 2004.

3.6.2.3   Infusion of Human Rights

A framework on Values and Human Rights in the Curriculum has also been developed in preparation for the roll-out of the Revised National Curriculum Statements.

According to the National Department of Education (2003(e):2) the documents seeks to provide guidance on the following:

> · *Guidelines for learning and teaching with regard to values and human rights for educators, policy makers, material-developers, non-governmental organizations and teacher-trainers.*
> · *It considers some of the pedagogic issues which require further analysis, as well as some of the dilemmas posed by values education.*

·   *It provides advice, indicators of good practice,*
        hints and illustrative examples in order to
        illustrate and elaborate on the principles presented.

To ensure that the goals of the constitution are indeed realised, the Department of Education has also embarked on an initiative, in partnership with a number of Higher Institutions, offering an Advanced Certificate in Education on Values and Human Rights in the Curriculum, for teachers. The information brochure for the Advanced Certificate in Values in Education (2003(f):2) states that the course will focus on the implications of values and human rights for educational practice and policy, including management, curriculum and classroom practice. It will cover:

·   *theories on values, ethics and human rights*
·   *human rights instruments and education policy frameworks*
·   *infusing values in the curriculum*
·   *managing a human rights learning environment*
·   *an independent research project on values or human rights related issues in the community.*

Once again, the two above-mentioned initiatives, which were initiated by the Department of Education, give the impression that the recommendations of Ministerial Committee have, indeed, been taken into account.

3.6.2.4   Relevant Subject Content

Although the subject content is not spelt out specifically, as recognition is being given to the uniqueness of learners and the contexts that they find themselves in, the assessment standards assist in the selection of content, as well as provide direction in terms of conceptual coherence. The following is an example from the Life Orientation, Revised National Curriculum Statements (2002(e):16-17).

LEARNING OUTCOME 1	GRADE 1 ASSESSMENT STANDARDS	GRADE 2 ASSESSMENT STANDARDS	GRADE 3 ASSESSMENT STANDARDS
HealthPromotion			
The learner will be able to make informed decisions regarding the personal, community and environmental health	**We know this when the learner:** · States personal details · Describes own body in a positive way · Shows and identifies emotions, including respect for living things · Copes with anger and disagreement in non-destructive ways · Manages the changed environment of the class and school	**We know this when the learner:** · Identifies positive aspects of self · Desribes what to do to treat own body well · Demonstrates and discusses emotions in various situations · Demonstrates appropriate behaviour in conflict situations · Demonstrates appropriate class-room behaviour, including groupwork skills	**We know this when the learner:** · Describes own abilities, interests and strengths · Explains why own body should be respected · Explains how she or he copes with challenging emotions, including dealing with people living with disease and illness · Demonstrates assertiveness appropriate to a situation · Identifies groupwork skills and applies them consistently

From the above, it is once again gleaned that the Department of Education has given serious consideration to the Review Committee's findings and recommendations, thus the implementation plan for the roll-out of the Revised National Curriculum Statements seems much more detailed.

Conclusion

Although the original version of C2005 was designed with the intention of addressing
the challenges outlined in 3.1, it is not surprising that, for many a teacher, it proved to be problematic, given the fact that Enslin (1990:83) NEPI (1992:17) and others remind one that the conditions at teacher training institutions in the past left much to be desired.

As referred to in Chapter 1, teachers were indeed unprepared for the progressive new approaches to designing learning programmes, learner-centred methodologies,
change of power relations, use of learning and teaching support material and continuous assessment. They were, thus, left with fear and uncertainty and resorted to what the National Access Consortium of the Western Cape says "many tended to see the new approach to teaching as a negation of everything they knew about teaching, and so responded in a reactionary fashion by throwing the baby out with the bathwater" (2001:90). *They further assert that:* "previously, teachers talked too much, now they do no talking and learners are required to complete work with minimal assistance, in classrooms that are overcrowded and under-resourced".

The Ministry and Department of Education responded to the outcry in the form of the Revised National Curriculum Statements based on some of the recommendations of the Curriculum Review Committee referred to in 3.4.4. It, however, remains to be seen, if challenges outlined in 3.4.3 will be responded to effectively.

The following chapter provides insight into the current teaching and learning situation in South African schools.

CHAPTER 4

THE CURRENT LEARNING AND TEACHING SITUATION IN SOUTH AFRICAN SCHOOLS

4.1   Introduction

Although the objectives of C2005 aim to bring about higher levels of teaching and learning, there is broad consensus that teaching and learning in the majority of schools still leaves much to be desired. The situation is illustrated in the findings of the Curriculum Review Committee Report on C2005, as referred to in Chapter 3, as well as in numerous research studies undertaken, which reveal that the problems can generally be described as teacher-centredness, pupil passivity, rote learning and the like.

To gain a clear picture of the current learning and teaching situation in South African schools, a synopsis of research studies, undertaken in the President's Education Initiative research project, as well as other related studies completed after the implementation of C2005, will be discussed. It must be mentioned, however, that the PEI research project was initiated shortly after the implementation of C2005 and much has been done to rectify the situation.

In addition, an overview of the findings of the first National Systemic Evaluation and a short report on the performance of Grade 10 learners in the Northern Cape, after C2005 implementation, will also be given, in an attempt to assess whether the context in which C2005 is operative, is conducive to produce the intended outcomes of C2005.

4.2 The Presidents Education Initiative (PEI) Research Findings

This research was commissioned by the Department of Education with the purpose of providing a scientific basis for planning and development of support programmes.

4.2.1 Reasons for teacher-centred practices

Taylor and Vinjevold (1999:131-161), who put the findings of the PEI research project in conversation with empirical research on classroom practice, highlight two reasons for teacher-centred practices, which is found to be endemic in South African schools.

4.2.1.1 Fundamental Pedagogics

They say that the doctrine of fundamental pedagogics had a profoundly detrimental effect on teachers' thinking and practice, a perception which is also shared by the NEPI report (1992a:17) and Enslin (1990:83). Fundamental Pedagogics is described as an indigenous product, which, drawing on Dutch phenomenological philosophy, claims to have developed a science of education. It is further explained that pre-1994, during the apartheid years, it was prominently associated with the Department of Education at the University of South Africa, which is by far the largest provider of both pre- and in-service education teachers, and supported by a number of Afrikaans and homeland campuses. Vinjevold and Taylor (1999:131), like Enslin (1990:83), maintain that Fundamental Pedagogics is based on the premises which can be interpreted as authoritarian. This implies that the teacher, as knowing adult, leads the child to maturity. It is, however, believed to be more the way in which it was taught, which is through a series of propositions that brooked no analysis or critique. This aspect is deemed to be chiefly responsible for its dismal reputation in liberal and progressive circles.

It is further explained that, because Fundamental Pedagogics was the dominant theoretical discourse in education departments at South Africa's black universities and colleges, those who taught at these institutions were steeped in the tradition of Fundamental Pedagogics, as they also infused the curricula of the professional subjects with the doctrine.

Policy-makers, in opposition to apartheid, as pointed out in Chapter 2, therefore saw the uprooting and replacement of this philosophy as one of the primary tasks to be undertaken when restructuring teacher education. Given the effects of Fundamental Pedagogics, it is believed that solutions to this detrimental philosophy involves two steps, namely, the propagation of a liberatory ideology and the institutions of systems which encouraged teachers to follow learner-centred classroom practices. Both of which are premises underlying C2005 and which are alluded to in 3.1.

4.2.1.2 **Language and Knowledge**

With regard to language and knowledge, Taylor and Vinjevold (1999:135) refer to studies which were undertaken in primary schools in the then Bophuthatswana, in the mid – to late eighties, where the Primary Education Upgrading Programme (PEUP) was working on the reform of lower primary schooling throughout the region. They refer to Macdonald (1990:32), who found that black children spent most of their time in class listening to their teachers and that the dominant pattern of classroom interaction was oral input by teachers with pupils occasionally chanting in response. Although teachers asked questions, the questions were aimed at data recall or checking whether pupils were listening to the lesson, rather than eliciting more challenging responses. Classroom tasks, in general, were oriented towards the acquisition of information, rather than on higher cognitive skills. Teachers also appeared unable to communicate the attitudes, that is, curiosity, respect of evidence and critical reflection, necessary for the development of higher-order cognitive skills.

This included making observations, asking questions, deriving hypotheses and conducting investigations. In the first three grades, learners' listening, speaking, reading and writing skills were also very poorly developed in both their first language and in English. It was also evident that learners spent very little time reading or writing. Since all further progress at school depended on these four skills, black children, generally from the most disadvantaged communities, were further handicapped by the practices prevalent in the classroom. Firstly, learners did not have the language skills required to process abstract concepts and the situation was greatly aggravated when they changed the medium of instruction from mother tongue to English in the fourth grade. English language teaching did not also prepare them for instruction in English in a wide range of subjects. Secondly, Macdonald's examination of textbooks showed that, at the levels of both lexus and syntax, learners were likely to encounter serious difficulties, given the state of their language development. In addition, learners were not being taught the conventions of expository text, and this further hindered their ability to read. The third kind of difficulty lies in the area of conceptual development, where new ideas were not systematically introduced to learners and by the time learners reached the fifth grade, they had great difficulty in coping with the deluge of new ideas.

To complete the distressing picture, Macdonald (1990:32-35) found that rote learning had built up a self-sustaining momentum, as teachers explained that drilling was an effective way of teaching, since children could not read. Instead of teaching them to read, they resorted to memorisation. Furthermore, Macdonald's diagnosis contends that teachers' own lack of conceptual knowledge and reading skills were the foundation on which these practices rested. This meant that teachers remained within their own confined comfort zones and resorted to pedagogies which enabled them strictly to control the learners' access to knowledge.

Unsure of their own knowledge base and either unable or unwilling to expand it, their teaching by instinct or design, ensured that there was no danger of learners venturing further and threatening the shaky foundations of their teachers.

Taylor and Vinjevold (1999:135) further highlight the extent of the problem in the report, by referring to the Langham study conducted in 1993, which confirmed these conclusions. According to Taylor and Vinjevold (1999:135) Langham found that the learners' level of language competence was poor, that the textbooks were too difficult for them to read and that the tasks and exercises were beyond the competence of the learners because they were conceptually too advanced. This, in turn, led to a heavy reliance on rote-learning and it made learners dependent on teachers for what they learnt.

If it is assumed that Fundamental Pegagogics affected the thinking and classroom practice of the majority of teachers in schools, it is not surprising that language and knowledge competencies would be affected, which would undoubtedly impact negatively on the implementation of C2005.

4.2.2 **Factors which create barriers to effective teaching and learning**

After analysing the research studies conducted in the Presidents Education Initiative (PEI) research project, Taylor and Vinjevold (1999:135) identified five main issues which affect teaching and learning, namely:

- institutional conditions
- attitudes of teachers
- teacher knowledge
- classroom practice
- student learning

They deem the above-mentioned aspects as interdependent as they determine and influence each other but explain that, in order to clarify and understand each aspect, they separate them in the following discussion.

4.2.2.1   <u>**Institutional conditions**</u>

Although very few of the PEI research studies worked directly at this level, it is pointed out that most reports confirmed two principles which have now become established knowledge about South African schools, which are:

- Teaching and learning cannot occur in an environment which is lackadaisical, unpredictable and which is not directed at optimising quality classroom time.
- Conditions in the schools in which the PEI research studies were conducted, are far from those conducive to learning for substantial periods of time.

The point is illustrated through two examples of the research project. The first of which illustrates the kind of internal causes of the low levels of teaching and learning in schools, while the second refers to the sorts of external factors which inhibit effective schools.

A study conducted by Schollar (1998:12) is referred to, which describes the results of an exercise undertaken with principals during a time management course. Principals from 38 rural schools were asked to examine the timetable of their respective schools. On concluding the exercise, it was found that on average, of the possible 190 tuition days, 130 days were lost.

This was due to registration at the beginning of the year, a slow start to subsequent terms, examination preparation time, writing of exams, marking of exams, union meetings, strikes, paydays, memorial services, athletics, music competitions and district meetings.

Table 4.1 reflects the loss of instructional time for learners as illustrated by Schollar (1998:12).

Table 4.1   <u>**Actual tuition days**</u>

Days in the year	365
Minus holidays	175
Possible Tuition day	190
Less	
Registration	10
Exams	60
Beginning and end of term	15
*Other (e.g. pay days, athletics, etc.)	45
Total days lost	130
Actual Tuition days	60

An example of external factors inhibiting effective learning and teaching is illustrated through the research by Jacklin, Hoadley and Gazula (1998:7-23) in two former Department of Education and Training high schools on the Cape Flats. The researchers problematise the high proportions of over-age students in both schools, 53% and 71%, with 32% of all learners in both schools older than the norm by two years or more. The phenomenon is accompanied by a high failure and dropout rate. The study concludes that high levels of student mobility are the likely causes of these indicators of inefficiency, given the fact that immigration into these schools is mainly from the Transkei, while emigration is largely as a result of middle-class children moving to former model C schools.

4.2.2.2   Attitudes of teachers

Given the fact that one of the principal pillars of the policy framework established
by South Africa's first democratic government involves a shift in responsibility
from
a centralised, authoritarian state towards greater autonomy at lower levels, it is

deemed imperative that parents, principals and teachers take the initiative and
assume responsibility for the optimal functioning of their classrooms and schools.

Ewing and Setsubi (1998:61-78) in their research, illustrate the distance which
school level actors need to travel before this vision becomes a reality. They
investigated the attitudes of principals, teachers and learners towards problems
in their schools, as well as their likely causes and solutions. A vast majority of
respondents indicate that all three parties blame forces outside their own control
for the problems and similarly look to outside intervention for solutions. There is,
of course, a great deal of justification for these views, as discriminatory and
authoritarian practices by the previous government resulted in the under-
resourcing of most schools and the disempowerment of most school
communities.   It must, however, also be born in mind that people driven by an
internal locus of control, look to their own resources, in addition to what may be
available from the outside, to contribute to improving their own conditions. It is
thus deduced that improved learner results, indeed do need external resources,
such as textbooks and laboratories, but, with or without additional resources,
better school management and teaching practices are also required. The
findings of Ewing and Setsubi (1998:39) are confirmed by Gilmour (1998:23-25),
who interviewed teachers in eight successful schools in the Western Cape.

Respondents ascribed the success of their school results overwhelmingly to staff factors 77,2%, but when asked why they thought students might fail, 80,5% put this down to student factors and only 1,2% thought it might be due to poor teaching.

4.2.2.3   Teachers' limited conceptual knowledge

It is also reported that one of the most consistent findings of a number of the PEI research studies, points to teachers' low levels of conceptual knowledge, their poor grasp of their subjects and the range of errors made in the content and concepts presented in their lessons.

The study conducted by Pile and Smythe (1998:46) of Grade 4 and 7 Geography teachers, confirmed Langham's hypothesis alluded to in 4.2.1.2. One of the reasons why teachers are unable to process their Geography texts, is because they lacked background in the discipline. Pile and Smythe's study found that teacher's knowledge of Geography is weak. They do not have a holistic understanding of what they are teaching and therefore, are unable to see the links between different parts of the curriculum. As a result of the poor understanding of the subject, teachers made a number of factual errors. During the research, teachers were not receptive to these errors being pointed out to them, as it was observed that it did not spur them on to researching the topics more fully. The researchers suggest that teachers' low level of reading skills was a very large part of the problem.

Two studies of Grade 4 Mathematics teaching, by Reeves and Long (1998(a):57-81)   in townships around Cape Town and Setati (1998:71) in Mamelody, both found that teachers used mathematically incorrect language. Setati reports that teachers frequently committed significant errors in the way they used the formal mathematical register. For example, in demonstrating an expanded method for division, the teacher made the same error a number of times.

When the error was pointed out to the teacher in private, the teacher corrected the error but did not explain the change to the class. In the Reeves and Long study, a teacher told learners that expanded notation is *"when the number gets bigger"*. Another teacher used the number 203 to explain place value but did not provide and explanation of 0 as a placeholder. Another teacher did not explain the carrying in subtraction correctly and a fourth teacher did not explain place values correctly.

The Reeves and Long (1998(b):90) Science study has similar findings. It reveals that Grade 7 Science teachers did not have the conceptual knowledge to teach Science at the levels required.

Taylor and Vinjevold (1999:142), therefore, say that the findings of the PEI strongly suggest that teachers' poor grasp of the knowledge structure of Mathematics, Science and Geography acts as a major inhibition to teaching and learning in these subjects and that this is a general problem in South African schools.

4.2.2.4   <u>Teacher-centred practices</u>

In addition, PEI researchers observed significant contradictions between what the individual teachers said about how they thought children learn and the classroom practices of the same teachers. Pile and Smythe (1998:42-43) for example, discovered that, in pre-session interviews, teachers quoted discovery, building on prior knowledge and working in groups, as the way children learn. However, the methods applied in the classroom were found to be the opposite of this. The researchers say that pupils were never given the opportunity to discover, there was no evidence of building on prior knowledge and whole class teaching occurred most of the time. There were, however, indications that teachers accepted the desirability of learner-centred pedagogy, but they were unable to put it into practice.

Further analysis of the PEI research reveal that the research projects explicitly link or implicitly link teachers' knowledge of the discipline they are teaching to the pedagogic knowledge and practices. In other words, poor conceptual knowledge is accompanied by a superficial understanding of what makes for good teaching. The result is, therefore, teacher-centred practices and a very superficial engagement with a learners' conceptual development.

The following practices were commonly observed:

- Lessons were dominated by teacher talk and low-level questions
- Lessons were generally characterised by a lack of structure and the absence of activities which promote higher order skills such as investigation, understanding relationships, and curiosity
- Real world examples were often used but at a very superficial level
- Little group or other interaction occurred between learners
- Little reading and writing took place. When it did occur, it was of a very rudimentary nature

The PEI research findings in the above-mentioned areas are further described in more detail by Taylor and Vinjevold (1999:143-156).

(a)   Teacher talk dominates classroom interaction

A number of studies reveal that teacher talk dominates classroom interaction. According to the study undertaken by Dachs (1998:2), 81% of the time in English, was spent in this way. This, in itself, is not necessarily deemed a problem, as whole class teaching in which the teacher dominates interactions, can be a very effective way of engaging learners in conceptual development. A study which was conducted in eight Western Cape secondary schools, exhibiting the full range of socio-economic status, reveals that the schools that consistently achieved good matriculation results, had teachers who were competent and knew their subject, despite the fact that they used traditional methods.

Be this as it may, one is reminded that the PEI research had no intention to valorise one or other form of pedagogy, but it intended to emphasise the content and nature of the interaction. In most cases, these were of low quality, although it is reported that many interesting and effective techniques were observed.

In Setati's (1998:45) study, she investigated the extent to which code-switching, that is, changing from one language, generally the language of instruction, to another is used, as well as the extent of chanting and chorusing in classrooms, the conditions under which these strategies were used and their effects on learning.

She found that code-switching was commonly used by all six teachers she observed and was particularly useful in introducing and explaining the formal mathematical register to learners who were not proficient in English, as the majority of mathematical terms do not exist in African languages. While code-switching is deemed a very effective method for introducing language speakers to the formal mathematical register, it is of no help in progressing into the conceptual domain, if the teachers are unsure of themselves.

It is found that such conditions effectively block the learners' access to mathematical concepts.

The PEI researchers also observed that the majority of questions posed by teachers involved simple data recall, or were merely used to test whether the learners were listening. Pile and Smythe's study of Grade 4 and 7, as referred to in 4.2.2.3, reveals that in Geography classrooms in the Free State, there were instances of more difficult questions, but these were answered in singsong chorus, indicating that they were learnt by heart. In some classes, an enormous number of questions were asked but it was clear that learners did not often understand the questions and were unable to express themselves in English. Most correct answers were provided by a limited number of learners in the class. An analysis of errors indicated that there were fundamental weaknesses in learner understanding. Another frequently observed practice is that incorrect answers were not corrected, nor did teachers use correct responses to questions to further develop conceptual understanding.

(b) **Lack of structure to lessons and development of higher order thinking skills**

PEI researchers also found that the content and structure of lessons did not assist with the gradual development of concepts. In most cases, as reflected in the above discussion, teacher talk dominated lessons. It was observed that even when teachers provided learners with a variety of activities, these were generally not integrated or organised sequentially in ways that assisted the learners to practise the necessary concepts and skills incrementally.

Most researchers also observed that in many classes, teacher expectations of their learners were very low, as teachers confined the content of their presentation to simple information, often well below the level required.

The Webb (1998:65) study for example, found that all teachers who taught fractions to Grade 5 pupils, were using examples much easier than those which should be taught in this grade. Pile and Smythe (1998;93) also found that teachers focused on the transfer of long lists of place names in their teaching of Geography, but did not link these to the possible reasons for the development of towns or settlements in particular areas.

In the evaluation of a Primary Science Programme, Reeves and Long (1998(b):83) noted that teachers did not pay attention to ensuring that learners understood the relationship between their representations or models used and the science concepts they were supposed to learn. The researchers report that the conceptual goal in one activity was for learners to understand that all matter and energy in the universe originated from a huge explosion but, although the teacher used a gas burner and popcorn to demonstrate this, pupils were merely asked to draw what happened. In the majority of cases, the learners drew and labelled the pot, hot oil, gas stove and corn, rather than the impression of the Big Bang, which the popcorn demonstration was supposed to illustrate. The teacher did not provide any assistance to the learners to move beyond their naïve, realist understanding of the model or to understand the relationship and difference between the model and the concept of the Big Bang, which was the conceptual goal in the first place, rather than the model which now became the learning goal. The analysis thus suggests that teachers need assistance in providing learners with more direct support in reformulating models of scientific concepts into the symbolic scientific modes, which should be represented.

(c)   Incorrect use of real-world examples

The Setati (1998:69-72) study reveals that real-world examples were often used by teachers in an attempt to mediate between informal discourse and the formal mathematical register but, in the overwhelming majority of cases, they did not serve as an entry into higher level conceptual thinking.

It was found that, with the teaching of money, one teacher followed an exemplary sequence, starting by talking about money and its use, followed by simple calculations with cents, the introduction of rands, and ending with shopping problems. At no stage were the principles of the decimal system used to convert rands into cents, to solve problems, or to understand how to use the decimal. Teacher discourse remained in the procedural, hence in deciding how to place the comma, learners were led to believe that it invariably has two figures to the right. This conception has a major threat to the proper understanding of the number system in general and a greater threat to the decimal in particular. It can, therefore, be seen that real-world examples can just as well be a hindrance when used as a stepping-stone to conceptual understanding.

A strong conclusion of Setati's (1999:69-78) research is that, with only one exception of a total of 30 lessons observed, mathematical discourse never progressed beyond the procedural into an exploration and understanding of mathematical concepts. Mathematics now became a set of rules, with no underlying logic, for the learners involved. It was, therefore, concluded that this practice is almost a certain function of the teachers' own weak conceptual base.

The Reeves and Long (1998:72-78) Mathematics study, as well as the Primary Maths Project also conducted in 1998, both confirm Setati's findings on the use of learners' everyday experiences. Forms of practices, such as shopping was the main focus, rather than on how practices embody mathematical principles. The application of mathematical concepts, principles or strategies to solve problems in the every day life of learners was never addressed.

(d)   Promoting participation through superficial levels of group work

Overall, the PEI researchers found that although learners in most classes were seated in pairs of groups, there was little discussion between learners. Bell (1998:12) for example, reports that teachers' understanding of group work did not go beyond the superficial level of physical arrangements, or what he calls *"cluster work"*. Even though there was a change in the physical arrangement of classrooms, the dominant interaction remained the teachers talking to learners, with very little learner talk of any kind. The Kohler et al. (1998:40) and Webb et al. (1998:72) studies, both found that even after in-service teacher intervention, aimed primarily at introducing group work, the only change was in the arrangement of desks with little or no evidence of a change in classroom behaviour.

The South African Institute for Distance Education study (1999:98) concludes that the rationale for group work commonly shared by learners is that, it promoted learner participation. Group work was, however, understood to be the only way in which participation could be promoted. The role of teachers during group activities confirmed this view. During such activities, no mediation or meaningful support was provided. There was very little monitoring and progress and the same instruction was repeated, even though learners were clearly having problems with the tasks given to them. The teachers seemed to assume that once learners were in a group, participation and learning would occur automatically. Bell (1998:17), in his study of English second language classes, in which group work was used, found that, in the majority of group activities, interaction was not constructive but consisted of joking and playing.

Reeves and Long (1998(a):87) in their Focus on Four project, report that eight of the twelve classes which they observed, did not provide opportunities to discuss Mathematics concepts, principles and processes. In the few lessons where teachers encouraged learners to work together, they did not organise the activities or discussion in ways that ensure that learners shared ideas, explained their thinking or solved problems collectively.

In their observation of Natural Science classes on the Focus on Seven project, Reeves and Long (1998(b):93) highlight the dangers inherent in classroom activities, which involve group work. The analysis suggests that for group work to contribute to improving the learners' understanding, knowledge and skills, learners need meaningful subject content to talk about or work with, as much time can be passed in superficial or irrelevant discussion. Successful group work activities were, however, observed when learners set clearly defined tasks, had the essential pre-knowledge and understanding of the subject content from preceding activities, and possessed the reading skills, communication skills, strategies and attitudes required when working together. It must be remembered that group work takes time and when used without very careful planning and guidance from the teacher, it can be an extremely inefficient teaching tool.

(e)   Little opportunities for reading and writing

Classroom observation by the PEI researchers also reveal that learners were given very little opportunity to read. According to the Schollar (1998:27-36), only 4% of time was spent on reading and in the study of Pile and Smythe (1998:93), it was observed that no opportunities for reading were provided. Although all eight schools had sets of textbooks, the teachers never used these with the children, as they felt they were inferior and too difficult for the children to read. Some teachers used photocopied material, consisting largely of diagrams or pictures.

Because reading material was absent in the classroom and classes were dominated by teacher talk, it was not possible to assess the learners' reading competence. It must, however, be assumed that under such conditions, it would be poor.

In Duncan's (1998:23-38) study of initial reading programmes, it was observed that the amount of time spent on reading was limited in many classes. He argues that the integration of the four language skills, into every language lesson, which has been the trend in teacher training courses over the last ten years, has meant that a distinct reading lesson no longer exists. In many schools reading experiences, be they planned or unplanned, occur throughout the lesson. These reading experiences may or may not, include formal instruction and are heavily subordinated to the overall content of the lesson. The teaching of reading is, therefore, haphazard. Although the integration of the four reading skills is an international trend, Duncan (1998:43) says that South African schools have *"submerged the initial reading instruction in the general milieu of Foundation Phase activities"*. He further says that this may have more to do with teacher competence and classroom practice than pedagogical theory. In any event, the teaching of reading in these classes seems to be incidental and sporadic, rather than a main focus and outcome of a lesson.

Even where development programmes were introduced, with the specific aim of improving reading, progress was found to be slow. Dach's (1998:29-30) study, in which English reading materials were provided by NGOs such as READ and SMILE, reveal that 5% of learner time was spent reading, with 3% of this time on silent reading. The Reeves and Long (1998(a):72-82) analysis of the teachers' engagement of learners using texts, shows that teachers struggled to get learners to interpret extended texts because of the low reading levels of learners. It was clear that learners had not developed strategies for independent reading.

They also found that many learners had difficulty in reading and understanding the language and information in the Third International Mathematics and Science Study (TIMMS) items and their efforts to engage with test questions were severely hampered by their low reading levels, as well as second language skills which were inadequate.

In the Pile and Smythe (1998:46) study, it was observed that written work comprised of a very small proportion of most of the lessons. In most cases, it was largely confined to simple exercises at the end of a lesson and often only one-word answers were required. Notes were provided but they were described as being few and far between and were written on the board for learners to copy. This, in itself, functioned most often as vocabulary exercises. It often seemed that learners copied these exercises with little comprehension and that the problem was compounded by the fact that the information was often decontextualised. In addition, learners were never required to write extended pieces. Pile and Smythe (1998:46) also found that whole sentences were rare and when content was reflected in books, it merely consisted of isolated words, which showed little or no logic. This resulted in reading and writing abilities being severely stunted, as well as learners being left with little or no written record of the work they did for the year. Although it was found that the marking of books occurred regularly, it was deemed superficial, as wrong answers were often frequently marked correct and corrections often consisted of a single word.

4.2.3   The impact of classroom practices on student learning

Given the above teaching practices, it is not surprising that researchers found that learners' levels of reading and writing were very poor and that they performed badly on Mathematical and Science tests. Taylor and Vinjevold (1999:153) point out that Reeves and Long's (1998(a):40-82) assessment of learners through the TIMMS items reveals that the learners had little understanding of mathematical knowledge integral to the intended curriculum.

Learners were found to be far behind their international counterparts in the 26 countries that participate in the TIMMS study, but they are also way below the expectations of C2005.

In their Mathematics study, Reeves and Long (1998(a):72-82) further hoped that the TIMMS coding rubric would allow them to analyse learners' responses in ways that would yield information about the procedures learners used to solve mathematical problems. The learners' responses were found to be so poor that it was not possible. The multiple choice questions elicited better results than the open questions, with only 1% to 3% of learners able to write down appropriate answers to the open questions that were asked. This scenario suggests that receptive mathematical language precedes expressive language and that learners found it easier to recognise responses that were correct, than to create their own answers.

Taylor and Vinjevold (1999:154), furthermore, indicate that a more detailed analysis of the above-mentioned study, together with classroom observations of learner performance, conclude that:

- the majority of learners had limited knowledge on how the number system works past two digits
- the understanding of place value and the application of the concepts in standard algorithms, such as addition, subtraction and multiplication, was lacking in at least 5% of learners
- most learners had difficulty reading and understanding the language and information, which was provided in the TIMMS test, particularly when learners were confronted with word problem questions

- many learners were unable to work efficiently because they did not know or lacked the basic competencies, especially in mental arithmetic, which is the recalling of bonds and multiplication tables

- the majority of learners in these classes were unable to work with complex procedures and processes, such as multiplication and division, and found it difficult to recognise and discover patterns

- most were unable to justify or explain why or how they reasoned.

They assert that the above findings were consistent with the findings of Maja (1998:16-21) who investigated Mathematics teaching and learning at Grade 8 level. A significant observation is that, although he chose ten of the better performing schools in each of Mpumalanga and the Northern Province, learner achievement in a Mathematics test averaged only 33,27% across the 20 schools, which were part of the study.

The study included two private schools, four former Model C schools, with the remaining schools drawn from township and rural areas. In thirteen of these schools, the results were so poor that, according to Maja (1998:21), *"no reliable deductions can be made for these schools based on the available data"*. The study also revealed that performance on multiple choice items, which was on average 43,85%, was nearly three times that of open response items which amounted to 16,53%. This discrepancy confirms the findings of Reeves and Long (1998(a):40-82) that learners find it easier to recognise the correct answer than to generate their own answers. A part of the problem is believed to be the fact that learners needed far more time to complete the test than had been expected.

The study also reveals that learners faired close to twice as well on questions which required routine procedures, 41,5%, and knowing mathematical terms, 36,44%, than they faired on complex p roblems, 22,0%, and problem solving, 24,56%.

On concluding the analysis of the PEI research, Taylor and Vinjevold (1999:160-161) charge that the most unequivocal finding about teachers, is their poor grasp of fundamental concepts in knowledge areas which they are responsible for. This naturally becomes a major problem for disadvantaged classrooms. They also say that the absence of a culture of reading amongst teachers is an added problem. Low knowledge resources amongst teachers is accompanied by a number of features, namely:

- Teachers deal with learning topics at low levels of conceptual knowledge. In a Grade 4 Mathematics class, the teacher never moved beyond the addition of a single-digit number, when the learner should be able to perform operations o n 4-digit numbers at this level.
- Tasks are not challenging. The majority of questions asked by teachers required no more than recall of simple information. The learners are not provided an opportunity to make inferences.
- Children read rarely and books are little in evidence.
- Children write rarely and when they do, it is more often single words or phrases.

The above-mentioned learning profile largely remains constant whatever classroom strategies are employed, be it whole class teaching, group work or real-life simulations. In essence, learning seldom moves beyond the superficial engagement with either the technology or substance of conceptual knowledge (Taylor and Vinjevold 1999:160).

They therefore conclude that, whatever role the authoritarian system of teacher education and management may have been in initiating the vicious circle of rote learning and creating the climate for its continuance, the main tool for propagating it, is the lack of conceptual knowledge, reading skills and spirit of enquiry amongst teachers. Reform initiatives which aim to revitalise teacher education and classroom practices should, therefore, not only create a new ideological orientation consonant with the goals of the democratic South Africa which is embedded in C2005, it should also get to grips with the greater problem which is, the massive upgrading of teachers' conceptual knowledge and skills. This is deemed a prerequisite for the adoption of active learning methods by teachers and the development of high order knowledge, skills and values by learners.

The following discussion will focus on the findings of the first National Systemic Evaluation in the country, as it provides invaluable information on factors that influence learning and teaching, be it directly or indirectly. It also provides insight into the context in which the new curriculum is being unfolded.

4.3 The contextual realities of the system as reflected in the National Systemic Evaluation Report

As alluded to in 4.1, the Department of Education has done much to improve education delivery and its outcomes. According to the Department of Education's National Systemic Evaluation Report (2003(b):1), school effectiveness and educator professionalism was identified very early on, as the two major factors whose improvement would play a key role in strengthening delivery capacity and improving outcomes. Hence, significant resources were devoted to encouraging the development of these factors and to induce a stimulating culture of teaching and learning.

It is, however, acknowledged that the transformation process has not been an easy process, given the effects of Fundamental Pedagogics outlined in 4.2.1.1, as well as the legacy of large classes, inadequate or no resources, poorly built schools and even schools that were accessible only by footpath (Department of Education 2003(b):1). In addition, there are perceptions that the cadre of teachers who are already in the system are indeed encountering challenges in shifting to the OBE approach to teaching and learning, as referred to in the findings of the PEI research, as well as the of the Curriculum Review Committee Report on C2005 which was discussed in Chapter 3.

Given the fact that Section 8(1) of the National Policy Act of 1996, mandates the Minister of Education to evaluate and monitor the standards of education provision, delivery and performance, in order to sustain continuous improvement in the post-apartheid education system, Systemic Evaluation is viewed as one of the enabling mechanisms to do so, with the objective of:

- determining the context in which learning and teaching is taking place,
- obtaining information on learner achievement,
- identifying factors that affect learner achievement,
- making conclusions about appropriate interventions (Department of Education 2003(b):1).

The Department of Education, therefore, undertook the first Systemic Evaluation of the new democracy, which is articulated in Section 28 of the Assessment Policy for the General Education and Training band. The process involved a selection of a nationally representative sample of learners and schools, whereby all aspects of the school system were evaluated against the transformational goals, which are set out in the White Paper on Education and Training referred to in 2.5.1 (Department of Education 2003(b):1).

4.3.1 <u>Transformational Goals</u>

The first Department of Education, National Systemic Evaluation Report for the Foundation Phase, has since been released and according to Professor Kader Asmal (2003: foreword), it *"provides a snapshot of the gains made and the challenges that still remain in consolidating a democratic system that provides good quality education".*

This being the case, the factors that affected the academic performance of learners were examined through the lens of the transformational goals, namely; access, equity and quality, as well as their related indicators. Although this is the main aim of the Systemic Evaluation process, the findings as reflected in the survey (2003(b):13-67) were used in this study to gain an understanding of the context in which learning and teaching is currently taking place and the impact these factors have on C2005.

4.3.1.1   <u>Access</u>

Table 4.2 presents the national average scores obtained by the learners per province during the Grade 3 Systemic Evaluation exercise (Department of Education 2003(b):22).

Table 4.2   <u>Learner performance</u>
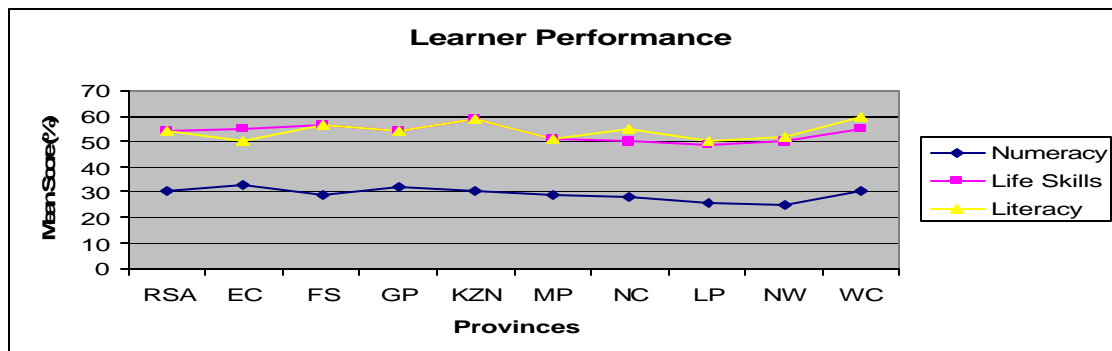
The report explains that the influence of access indicators on learner performance was examined using regression analysis and the coefficients calculated, denote the strength of each indicator's influence on the total score of each learner. The coefficients and the R-square value of the significant indicators are reflected in Table 4.3.

Table 4.3 <u>**Regression coefficent indicating strength of indicator influence on learner scores**</u>

INDICATOR	**COEFFICIENT**
Resources at home	.231
Ease of access to schools	.162
Number of years to complete a phase	.120
Utilisation of resource centre at school	.084
Early childhood development	.051
Pass rates	.032
Parents' qualification	.013
Educator: learner ratio	-.039
Repetition rate	-.053
R-square	**.202**

According to the Department of Education (2003(b):22) the results indicate the following:

- As reflected in Table 4.3, only nine indicators had a significant influence on learner performance.
- These indicators, however, only explain 20% of the variation in learner scores, that is, as noted by the R-square value. It is, therefore, deduced that at least 80% of the explanation for why and how learner scores are achieved, lies in other factors that are not addressed by these indicators.

- Resources at home had the strongest positive influence on learner scores, followed by the ability to access the school easily, number of years taken to complete a phase, the use of resource centres at school, early childhood development, pass rates and the education level of parents.

The following discussion, as reflected in the Department of Education's Systemic Evaluation Report (2003(b):23-26), will detail the findings of the access indicators mentioned in Table 4.3 and their influence on learners' scores:

(a)   Availability of resources at home

Resources at home were found to have a significant influence on learners' scores. It is reported though, that the Department of Education cannot be held solely responsible for the problem, as the actual education of children has to be seen as part of the whole development process. The report does, however, suggest that measures have to be taken to overcome the disadvantages faced by some, which could be accomplished with compensatory interventions or funding of various types.

(b)   Availability of resource centres at school

Although Project 7 (School Infrastructure) of Programme 2 (School Effectiveness and Educator Professionalism) of the Department of Education's Implementation Plan for Tirisano (2000:17), commits itself to ensuring that all schools meet the minimum physical and infrastructural requirements which are necessary to support a conducive teaching and learning environment, seven out of the nine provinces fell below the 5,35 national average indicator for facilities. In addition, the fact that only 27% of the schools that were surveyed had libraries or resource centers, suggests that learners have limited access to information and knowledge to enrich their learning experiences.

The situation is exacerbated by the findings that learners who attend schools that lack resources invariably also come from households that are similary disadvantaged.

Besides limited availability, it was also observed that when resources were available they were under-utilized. Utilization of resources reflected a mere 28,2%, mainly due to non-availability of libraries and books. Nationally, only 27,4% of learner respondents indicated that they had a library, though half of the educators, 54,4%, indicated that they had books available in their classrooms. The Limpopo and Eastern Cape showed the lowest indicator, due to the low availability of libraries, 6,9 and 11,6% respectively, while 71% of schools which responded in the Western Cape, indicated that they had libraries. C2005 encourages the utilization of resources outside of the classroom so that learners take responsibility for their own learning. This implies that the under-utilization of resources will impact negatively on curriculum reform. The approach to C2005 will, in essence, not be promoted effectively without access to, as well as the effective use of adequate facilities and resources.

With regard to staff rooms, only 51% of schools had staff rooms. This makes it difficult for teachers to prepare lessons, plan and review work in teams. Moreover, the inadequacy of communication facilities, such as telephones and faxes, isolates schools from possible sources of assistance and causes unnecessary delays in sending to and receiving information from the district and provincial offices. This limits the educators' resourcefulness which further impacts negatively on learner performance.

(c) <u>**Parents' level of education**</u>

The survey revealed a high correlation between parental levels of education and the assessment scores of learners. This suggests the need to improve the education levels of parents, although current education policies of the Department of Education are very favourable towards this end. Programme 3 of the Implementation Plan for Tirisano (2000:33) suggests a commitment by the Department of Education to reduce the levels of illiteracy in the country by increasing the provision of Adult Basic Education and Training.

(d) <u>**Repetition rates and average number of years to complete a phase**</u>

The findings indicate that grade repetition is closely linked to lower learner scores, but that repetition is not really the cause of low scores. Low scores and repetition of learners were found to be influenced by factors, such as the educator:learner ratio. Despite the Department of Education Assessment Policy in the RSA: Government Gazette No. 19640, Vol. 402, (1998:13), which discourages a high repetition rate, as it stipulates that learners are only allowed to repeat a grade once in a phase, the average repetition rate for Grade 3, nationally indicates that 10,9% did not progress to the next grade, which still appears to be too high. Learner-paced education through remedial teaching and remedial classes should be encouraged.

(e) <u>**Early childhood development**</u>

A high correlation between access to pre-schooling and learner performance was demonstrated in the study. The study revealed that almost 58% of learners in the sample had some kind of preparation before they entered Grade 1. The figures ranged from 70,2% in the Western Cape to 40,8% in Limpopo.

Overall, attendance rates at pre-school facilities were relatively low. As the improvement of this indicator can prepare learners for Grade 1 and also improve the pass rate at this level, it is imperative that the provincial departments of education closely monitor the Grade R provisioning as set out by the amended policy. It stipulates that a learner may be admitted to Grade 1, if she or he turns six by 30 June in the year of admission, rather than be admitted when they are seven as stipulated in the previous policy.

(f)   Pass rates

The national average pass rate is reflected as 83% which implies that 17% of all learners in the Foundation Phase in the country did not proceed to the next grade. Given the fact that the pass rate is influenced by a number of inputs and process, one such input being the teacher in the classroom, it is the responsibility of the teacher to ensure that good teaching takes place.

Another key aspect that influences the pass rate, are the school management teams that manage learning activities. In this case, the responsibility rests with the principal and the rest of the school management team. It is, therefore, obvious that, if the school is managed well, the pass rate should improve.

Although it is acknowledged that much has been done to improve the situation within schools, the findings of the National Systemic Evaluation Report reveal that continued improvement is vital, if the country and its citizens are to reap the intended benefits which are embedded in the critical outcomes referred to in 3.2.1.1. The Report furthermore, (2003(b):26) emphasises the point that, C2005 leans strongly towards a learner-centred and learner-paced pedagogical approach. It attempts to make learning relevant to the everyday lives of learners, hence the use of resources from the home in the teaching and learning process is encouraged.

The problem though, is the shortages of resources at school, as well as the lack of resources from which learners can access learning support material.

4.3.1.2 <u>**Equity**</u>

The equity indicators, as reflected in Table 4.4, had a significant influence on learner scores as pointed o ut in the Department of Education National Systemic Evaluation Report (2003(b):33).

Table 4.4 <u>**Regression coefficients indicating strength of influence on learner scores**</u>

INDICATOR	**COEFFICIENT**
Discipline, safety and learning atmosphere	.187
Private contributions and utilization of funds	.146
Functioning of SGBs	0.51
Assistance from the Department	-.119
R-square	.86

A general overview of the findings noted above are as follows:

- All the equity indicators, except educator qualifications at this level, had a significant influence on the learner scores which are illustrated in Table 4.2. The indicators illustrated in Table 4.4, however, only explain approximately 9% of the differences in learner performance. It is, therefore, inferred that at least 91% of the way in which learners differ in their performance, is explained by factors that are not addressed by the above -mentioned indicators. The educator qualifications indicator was not used, as more than 50% of the responses were not provided.

- Discipline, safety and learning atmosphere had the largest positive influence on learner scores, followed by private contributions and utilization of funds and functioning of SGBs.
- Assistance from the Department of Education had a negative influence on learner performance.

The following discussion will detail the findings of the equity indicators which have a significant influence on learner scores. It should be noted though, that the findings only point to general trends and practices. Specific reasons for these findings could not be provided, due to the lack of additional information (Department of Education 2003(b):33-37).

(a) Private contributions and the utilization of funds

Findings on this indicator reveal that there is a positive *"financial environment"* regarding the payment, use and administration of school fees. The findings, more specifically, clearly show that there is great satisfaction regarding the mechanisms which are put in place to handle school fees. There is, however, a difference of opinion between parents and principals regarding the payment of school fees. According to principals, only 59,3% of parents are paying fees, while 87,9% of parents indicated that they paid school fees. Therefore, even though the overall value for the indicator on private contributions and utilization of funds is high, it does not automatically imply a correspondingly high incidence of payment of school fees. What is abundantly clear though, is that the actual fees levied by schools differ across schools and provinces. The majority of schools, almost 69%, charge fees of R100 or less per annum, of which 40% levy school fees of R50 per annum. On the other hand, a significantly minority, approximately 18%, levy school fees of more than R1 000 per annum. This wide difference in school fee structure is also evident across provinces.

Over 50% of schools in the Eastern Cape, Northern Cape and Free State have fees set at less than R50 per annum, while a significant percentage of schools in Gauteng, Western Cape, Mpumalanga and Eastern Cape, over 20%, charge fees of R1 000 and more.

As the overall indicator on private contributions and utilisation of funds has a positive influence on learner scores, it could be inferred that this is due largely to the effective utilization and administration of school fees, rather than the actual payment of school fees. It could also be reflective of good management practices at schools.

(b)   Assistance from the Provincial Departments of Education

The degree of assistance that a school receives from the Department of Education is deemed to be a factor which could influence the functioning of the school and therefore, the performance of learners in the schools. Hence, principals rated the contribution of departmental officials to certain tasks which were performed at school, as well as the quality of assistance they rendered. The results reflected that this indicator had a negative influence on learner performance. The following two possibilities were cited for this finding: It could be that the training received, did not focus directly on the specific needs of the school and, secondly, that greater assistance has been rendered to those schools that were in need of it most, that is the schools with the lowest range scores. Be this as it may, the latter is deemed to be an extremely positive development.

(c) <u>**Discipline safety and learning atmosphere**</u>

The national indicator reflected that the indicator for discipline, safety and learning atmosphere depicts a generally safe and disciplined environment which is vital for learners to access learning and for educators to perform their tasks. Principals, however, noted that factors which influenced discipline negatively were:

- late coming
- absenteeism of learners
- absenteeism of educators

In this regard, the report states that an unacceptable high rate, about 15% of learners are absent from school on any given day.

(d) <u>**Functioning of the SGB**</u>

This indicator was determined by the responses of principals and teachers on the effective functioning of the SGB. The national indicator reflects the functioning of the SGBs at a level of 79,3% which seems to be a reasonable level of functioning. Provincial indicators range from 73,1% in the Free State to a high of 83,4% in Gauteng. Overall teachers considered the SGBs contributions to the effective functioning of the school at a level of 79,8%. Their contributions to the effective functioning of the structure included being involved in the following activities:

- maintaining bank accounts
- preparing an annual income and expenditure report
- ensuring financial statements are audited and examined
- presenting an annual report to parents

(e) **Teacher qualifications linked to subjects and level taught**

The exact influence of teacher qualification levels on learner performance could not be ascertained due to a large number of missing responses. It could, however, be determined that teachers who are qualified and experienced in the content area they teach, significantly influence the performance of learners.

With regard to Mathematics, Science and Biology, the national qualification in Mathematics is 10,5. On average, teachers had a qualification higher than Grade 10, but lower than Grade 11. Gauteng, KwaZulu-Natal and Limpopo reveal values greater than the national average in Mathematics, which ranges between the levels of 7,10 and 11.

Overall, approximately 25% of the teachers involved in the survey had a qualification in Mathematics at or lower than Grade 9, as did 35% in Science. The report further reveals that Biology seemed to be the subject in which the highest qualification had been obtained, while 40% of the teachers indicated that they had either Grade 11 or 12 Mathematics.

Although the influence of teacher qualification levels on learner performance could not be ascertained, it is apparent that the upgrading of teacher qualifications in Mathematics and Physical Science is vital.

4.3.1.3 **Quality**

Table 4.5 reflects the influence of the quality indicators on learner performance which was also examined by using regression analysis. As illustrated in Table 4.2 and Table 4.3, only the coefficients of the significant indicators and the R-square values have been reported.

Table 4.5   **Regression coefficients indicating strength of influence on learner scores**

INDICATOR	COEFFICIENT
Facilities	.256
Satisfaction rates of stakeholders	.171
Learning and teaching materials	.127
Teaching practices (learner responses)	.125
Attendance rates, contact time, time on task	.075
Assessment of learners and feedback procedures	.041
Teaching practices (educator responses)	.033
School Management and Leadership	.067
Repetition and dropout rates, age by grade	-.058
INSET and SGB training	-.079
Record keeping	-.088
R-square	.223

A general overview of the results indicate the following:

- The quality indicators that reflect a significant influence on learner performance only explain 22% of the differences in learner performance.
- This implies that at least 78% of the variation in learner scores can be attributed to factors other than those considered in the analysis.
- The facilities indicator had the strongest influence on learner performance, followed by the satisfaction rate of stakeholders, learning and teaching materials, teaching practices according to learner responses, attendance rates, contact time and time on task, assessment of learners and feedback procedures, teaching practices, according to teacher responses, and school management and leadership.
- The indicators that displayed a negative influence on learner scores as reflected in Table 4.5 are:

  - Repetition rates
  - INSET and SGB training
  - Record keeping

A detailed discussion on the significant indicators which relate to quality is discussed below.

(a) Facilities

Principals of 39% of the schools which were part of the study, reported that their schools were either not suitable for teaching or needed structural repairs. Teachers indicated that 11,3% of them are teaching classes with more than 50 learners, while an additional 21,9% were teaching classes with 40 to 50 learners. It is therefore clear, that it is difficult to implement quality education, as OBE has a particular emphasis on group work and the use of additional resources, which cannot take place in overcrowded classrooms.

It should, however, be noted that Project 7 of Programme 2, in the Implementation Plan for Tirisano (2000:17) as referred to in 4.3.1.1(b), highlights the Department of Education's commitment to ensuring that all schools meet the minimum physical and infrastructural requirements necessary to establish and support a conducive learning and teaching environment.

(b) Satisfaction rates of stakeholders

The satisfaction rate of stakeholders was compiled from more than 70 statements put to principals, teachers, learners and parents. The responses from the different stakeholders ranged from 75,4% to 78,8% within a range which varied from *"strongly disagree"* (0%), *"disagree"* (33%), *"agree"* (67%) to *"strongly agree"* (100%). All responses from provinces reflected a rating above 70%, as reflected in Table 4.6.

Table 4.6   Satisfaction rates of stakeholders by province

EC	FS	GP	LN	MP	NC	LP	NW	WC	RSA
76,6	75,8	78,5	78,0	72,5	79,8	73,8	77,2	77,4	771

An important observation is that both principals and teachers rated parental involvement as one of the main factors which influence learner achievement. Principals rated this aspect at 76% and educators rated it at the level of 60%.

With regard to a response on the participation of learners in sport or other cultural activities, the rating was below 66,7%, namely, *"my school gives prizes or awards to learners who do well in their studies".*

Seventeen percent (17%) of the principals and 25% of teachers indicated that they would change to another career if they had the opportunity. The satisfaction rates suggest that the consequences for the situation might be the following:

- low pass rates
- learners not doing homework
- learners not doing well in school
- good quality education not provided to learners

(c)   Learning and teaching material

The findings furthermore, show that learners in schools with more learning and teaching material, obtained higher scores than those in schools with less material. The Gauteng and Northern Cape schools had the highest indicators for learning and teaching material, 70,2% and 71,2% respectively. The ordering of materials seemed to be a problem. Approximately 79% of the respondents indicated that they had ordered learning support materials, but only one-third had received the material (Department of Education 2003(b):43).

(d)   <u>**Teaching practices**</u>

The findings suggest that practices related to outcomes-based education were not fully implemented in Grade 3. Evidence drawn from the findings on learner-involvement in classroom activities showed that:

- 42% of learners reported that they sat still in class
- 43% indicated that they repeated what teachers said
- 30% asked questions
- 45% were involved in group work
- 14% used calculators
- 9% used computers

Furthermore, 40% of learners indicated that they completed worksheets on their own and 30% solved problems without assistance from educators. Overall, 52% of learners interacted with workbooks in the three learning programmes, which implies that workbooks were used by learners at least every second day. Teachers, however, indicated that they only worked with these books once or twice a week.

It has also been found that the average frequency of activities per provinces, as given by teachers, was approximately 80%, which was nearly twice that obtained from learners' responses which reflected approximately 40%. The national value of the indicator was also 80% as indicated by educators and 40% as given by learners. This meant that teachers reported more classroom activity than learners.

(e) **Attendance rates, contact time, time on task**

The fact that the report reveals that only one-third of teachers started their lessons on time is a matter of concern, as valuable teaching time is lost. The matter is further exacerbated by the fact that teachers indicated that they performed other duties during normal teaching periods, such as:

- extra-curricular activities 30%
- meetings with school principals and other teachers 26%
- self development studies 8%
- leaving learners unattended 3%

Of the average 200 school days per year, almost 5% of teaching time was also lost due to the following:

- illness among staff members
- teaching and learning materials
- cultural activities
- late registration

(f) **Assessment of learners and feedback procedures**

In outcomes-based education, continuous assessment propagates that it is essential that assessment of all aspects takes place regularly. The survey, however, indicates that there are cases where educators reported that assessment took place once a week or once a month. The national average though, indicates that assessment took place every second day.

With regard to feedback to learners on homework assignments, it is reported that it took place on average every third day, despite the fact that it is pertinently mentioned in the assessment policy document, as an integral part of the learning process. Feedback to learners is clearly deemed a necessity for remediation purposes.

(g) School management and leadership

The indicator studied organisational aspects such as:

- the policies of the school
- management by the principal
- the role of the school management team

Nationally, the indicator was 80,3% with not much deviation in all 9 provinces as reflected in Table 4.7

Table 4.7   Indicators for school management and leadership by province

EC	FS	GP	KN	MP	NC	LP	NW	WC	RSA
78,5	75,3	83,9	81,6	79,4	84,3	76,1	80,4	78,5	80,3

The one policy aspect that was found not well implemented by the stakeholders, was HIV/AIDS. Nationally, 42% of principals indicated that they had a school policy on HIV/AIDS. Overall, the existence of HIV/AIDS policy in schools ranged from 26% to 56% across provinces.

In addition, aspects that were rated lower than the average, were responses to:

- Does the school conduct appraisals of teachers? (56,8%)
- Does the school have the National Assessment Policy document? (63,2%)
- Does the school have a Provincial Assessment Policy document? (60,9%)
- Does the school have a development plan? (75,8%)

Educators evaluated principals between 68,9% to 79,6% in provinces, with a national average of 77,6%. They also evaluated managerial aspects of principals below the average, namely:

- displaying adequate competence as a manager (76,4%)
- involving teachers in decision-making (74,4%)
- successful staff development (76,1%)
- monitoring the performance of teachers (75,7%) and
- dealing with the non-performance of staff (68,6%)

Furthermore, principals rated the success of in-service training in management at 75% and financial management at 67,6%.

As mentioned in 4.3.1.1(d) and reflected in Table 4.5, repetition and drop-out rates, INSET and SGB training and record-keeping, had a negative influence on learner performance. Aspects which might improve pass rates and the satisfaction of stakeholders as discussed, include:

- the timely provision of learning and teaching materials
- the improvement of facilities at school
- the effective use of time on task
- further training of educators
- in-service training of educators and principals

4.3.2 **Assessment of learners during Systemic Evaluation**

According to the Department of Education (2003(b):57), the results on learner performance were obtained from a sample of 52 000 Grade 3 learners, which were selected from all provinces. Results were reported for each of the three Learning Programmes assessed, namely:

- Literacy, which comprised of two aspects, namely, listening comprehension, reading and writing
- Numeracy
- Life Skills

4.3.2.1 **Learner performance by learning programme**

The national average score obtained by learners, as illustrated in Table 4.8, reflects that learners obtained the lowest scores for Numeracy, a national average of 30% and 54% for both Literacy and Life-Skills. However, for Literacy, learners were assessed for both Reading and Writing, as well as Listening Comprehension, with the national scores averaging 39% and 68% for each of these areas respectively.

Table 4.8 **National average scores by learning programme per province**
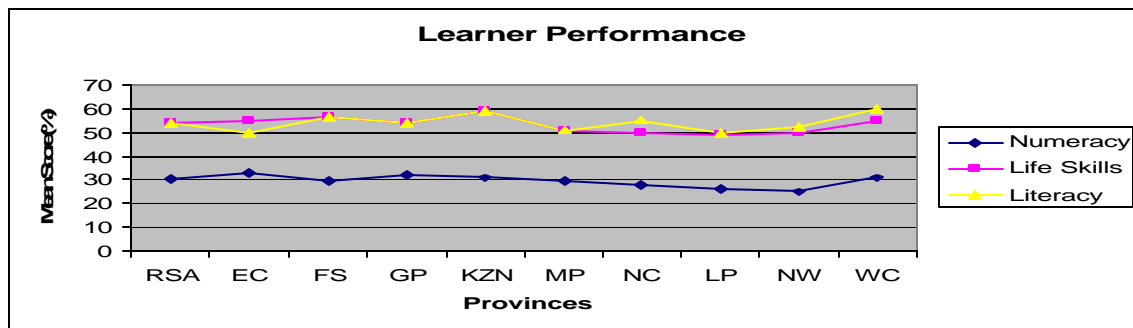
4.3.2.2   Learner performance by item format

The survey delved deeper with an additional analyses conducted to compare the performance of learners on multiple choice questions (MCQ) and free-response questions (FRQ) for Numeracy and Literacy tasks. Table 4.9 reflects that scores obtained for the MCQ were significantly higher than those obtained for the FRQ, which implies that learners performed better on tasks that required them to identify and select correct responses than on tasks that require them to produce their own responses. This finding is in line with the findings in the PEI research project, particulary the findings of Pile and Smythe (1998:46) as illustrated in 4.2.2.4(e).

Table 4.9   Learners scores by item format
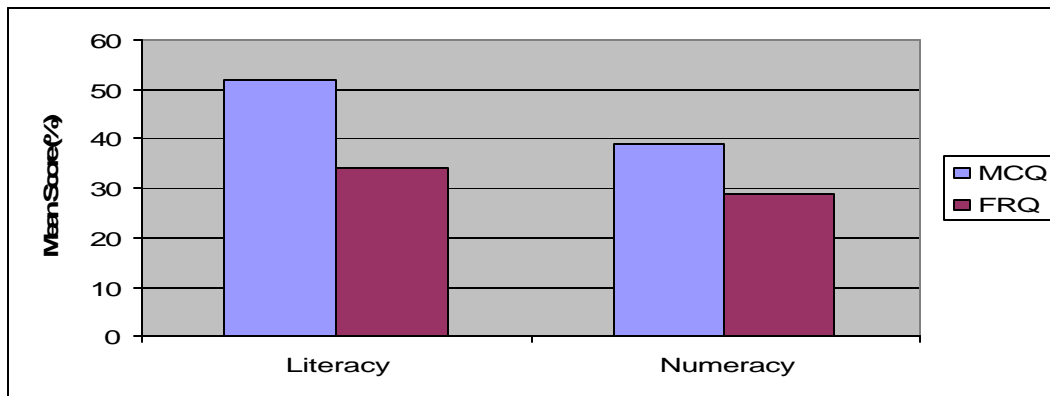
4.3.2.3   Learner performance by reading and writing

A further analysis conducted on Literacy scores revealed that across all provinces, learners obtained significantly higher scores on reading tasks as reflected in Table 4.10. The average score for all provinces was below 50% for the reading tasks and 35% for the writing tasks, except for KwaZulu-Natal. These results once again support the finding of Pile and Smythe (1998:93) referred to in 4.2.2.4(e), as learners seem to have greater difficulty in producing their own written responses.

Table 4.10   Reading and writing scores by province
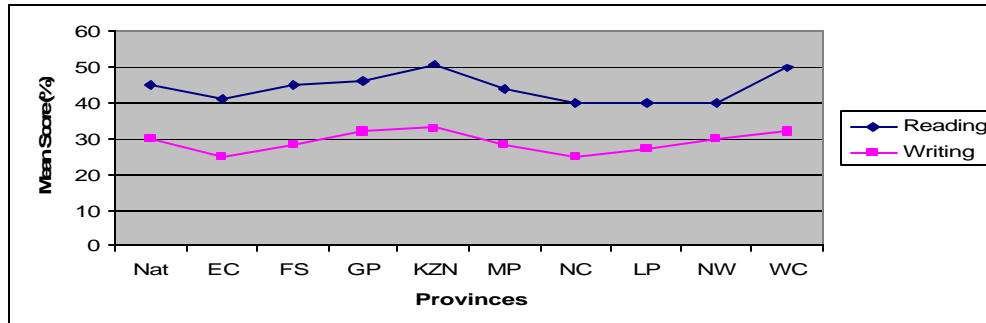
4.3.2.4   Language of instruction and home language

The assessment tasks were administered to learners in the language of learning and teaching, but the data indicates that the majority of learners (75%), responded to the assessment tasks in their home language. Table 4.11, however, shows that there were large variations between provinces. For example, learners from Gauteng who took the instrument in their home language were in the minority, approximately only one third. About 64% responded to the assessment tasks in their second or third language, but corresponding figures were 8% in the Northern Cape, 10% in the Western Cape, 13% in the Eastern Cape, 26% in the Free State, 17% in Limpopo and 22% in the North West. The study concludes that the phenomenon could be because of the movement of learners to English medium schools, the selection of English as medium of instruction and to some extent, the fact that the enrolment of learners from neighbouring countries has increased.

Table 4.11   Language of assessment task versus home language of
learner
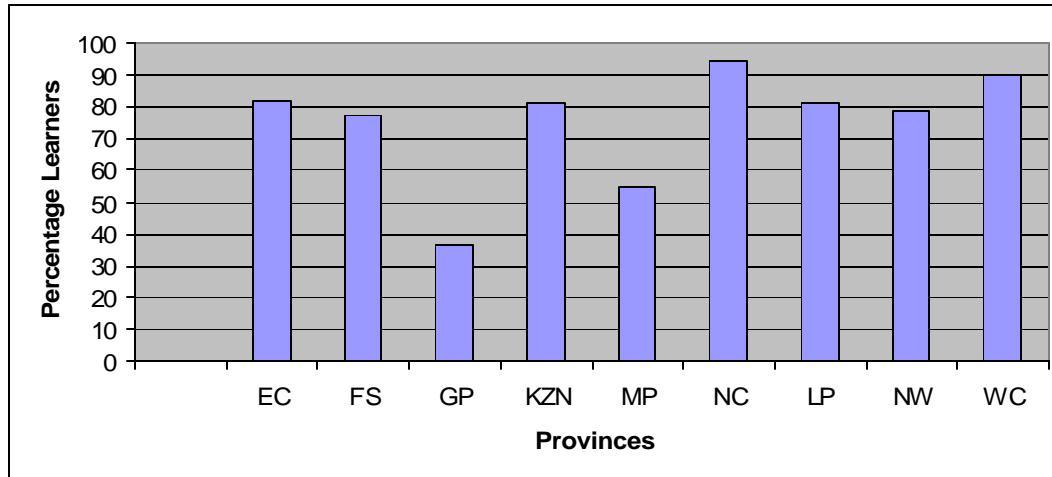
4.3.2.5   The effect of home language on learner performance

Table 4.12 indicates the effect of the home language on learner scores. It is evident that learners who responded to the assessment tasks in their home language obtained significantly higher scores across all three Learning Areas, than their peers who responded to the assessment tasks in their second or third languages.

The pattern was found to be similar across all provinces for the different learning programmes and item formats, except for Mpumalanga where the Numeracy scores of the second-language learners were higher.

Table 4.12   Language of learning and home language by learning area
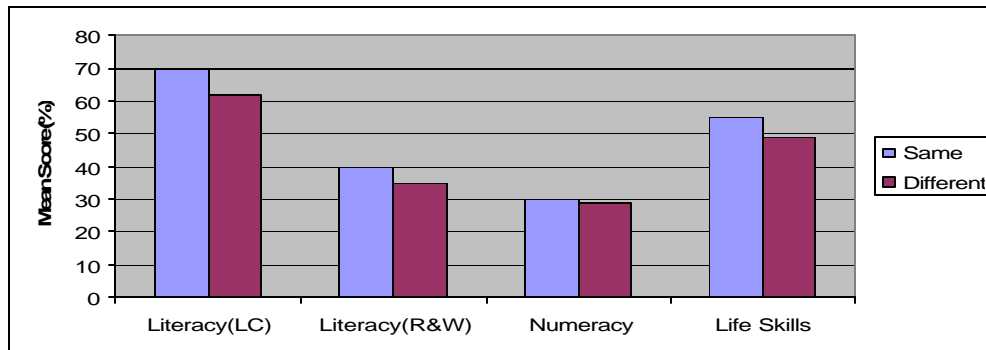
Although the design features of the original version of C2005, as well as implementation, seemed problematic, the Department of Education's, National Systemic Evaluation Report results also reveal that systemic conditions in which C2005 is operative, is not conducive in most provinces. This could be ascribed to the low learner scores in Numeracy, Literacy and Life-skills as reflected in Table 4.8.

4.4   The performance of Grade 10 learners after C2005 implementation

A report by the Northern Cape Education Department on the 2003 Grade 10 learner performance, provides another perspective (2004:2-6). This particular cohort of learners had several years of C2005 learning and teaching up until Grade 9, the GET exit point. They reverted back to the old curriculum in Grade 10, as official documentation from the Department of Education reveal that the Further Education and Training Certificate, which is Grade 10,11 and 12, will only be phased in as from the year 2006.

4.4.1   Comparison of Grade 1-12 pass rates in 2002-2003

None the less, Table 4.13 illustrates the pass rates for Grades 1 to 12 in the province.

It reflects that the pass rates for Grades 1-8 remain fairly constant above 90%. There is, however, a sharp drop in pass rate from Grades 8-9 of about 10% and again a drop of 23% to 61% in Grade 10. From Grade 10 to Grade 12, the pass rate increases steadily by 15% respectively to 76% in Grade 11 and 91% in the external Grade 12 examination.

Table 4.13   Pass rates for Northern Cape Grade 1-12 learners in 2002-2003

November Pass Rates All Grades

	Grd1	Grd2	Grd3	Grd4	Grd5	Grd6	Grd7	Grd8	Grd9	Gr10	Gr11	Gr12
2003	89.9	93.7	94.4	94	95.1	95.2	95.7	93.2	84	60.6	76.1	90.7
2002	89	93.8	92.1	93.7	95.7	94.5	98.1	95.4	90.4	60.2	71.9	89.9
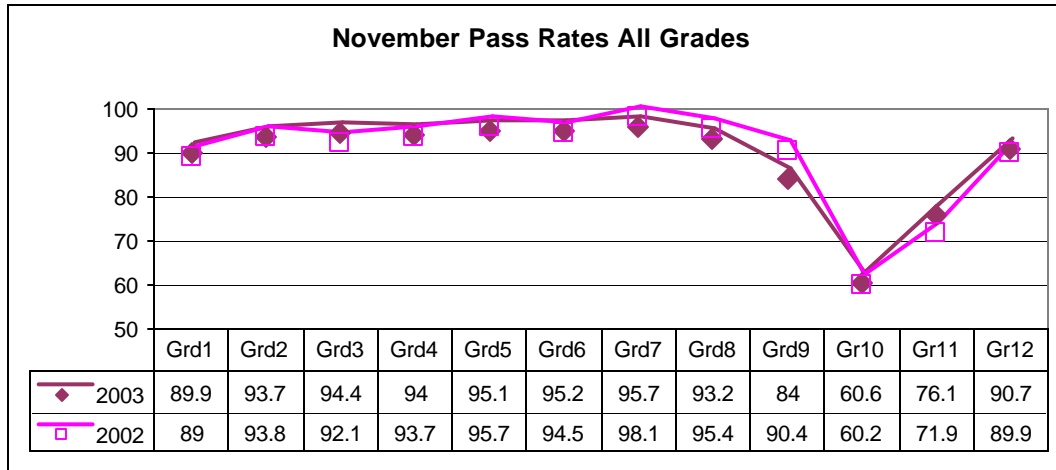
The Northern Cape Education Department (2004:3) contend that the disturbingly low pass rate in Grade 10, is not a new feature but, as gleaned from the 2002 data, it is an existing pattern. They, therefore, say that the introduction of C2005 had very little or nothing to do with the low pass rates.

They also conclude that declining pass rates in Grade 7,8 and 9 from 2002 to 2003, might be because only one or two traditional assessment methods are still being used, while learners are supposed to be assessed according to the policy prescripts of the National Assessment Guidelines, which include five to six forms of assessment.

4.4.2   Comparison of Grade 10 pass rates in 2000 and 2003

Table 4.14 compares the Grade 10 pass rates in the Northern Cape for the last four years (Northern Cape Education Department 2004:3).

Table 4.14   Northern Cape Grade 10 pass rates per year (2002-2003)

	Pass Rate			
	2000	**2001**	**2002**	**2003**
Pass rate of Grade 10 learners	63.4	61.5	60.0	60.2
Number of Grade 10 learners that have passed	6 884	6 758	6 829	9 460

The comparison depicts a steady decline from a high of 63,4% in 2000 to 60% in 2002 and 60,2% in 2003. An interesting feature though, is that the pass rates for 2002 and 2003 are practically identical. The Northern Cape Education Department Report on the Grade 10 pass rate (2004:3) concludes that the declining pass rate cannot therefore be ascribed to the transition from the OBE curriculum in Grade 9 to the old curriculum still being used in Grade 10. They argue that it seems that some schools kept learners back in order to achieve a better pass rate in Grade 12. On the other hand, if one considers the numbers of learners that passed, a different picture emerges. The number of passes remained fairly constant at about 6 800 to 2000 up to 2002, but in 2003 there was a marked increase in the number of candidates that passed. This implies that despite a lower pass rate, the sheer numbers meant that more learners passed in 2003 than in any of the previous years.

Given the current situation as illustrated by the Northern Cape Department of Education Report on the Grade 10 pass rate, it is obvious that the introduction of C2005 cannot be held responsible for low learner scores. It seems that it is, indeed, the context in which the curriculum is operative, which is problematic.

4.5   Conclusion

Although the Department of Education has effected many policies to improve education delivery and its outcomes, both the research studies discussed raise doubts about the effectiveness of the system in producing the intended outcomes of C2005. The short report on pass rates of the 2003 Grade 10 cohort in the Northern Cape reflects little change, when compared to the past.

Moreover, the effects of Fundamental Pedagogics which is indicative of low levels of conceptual knowledge, reading skills and spirit of enquiry, still plagues the present teaching core. In addition, as pointed out in 4.2.2.1, the context in which C2005 is operative has inhibited effective teaching and learning.

The findings of the Department of Education's, National Systemic Evaluation Report as illustrated in 4.3, clearly reflects that home and school environments, cannot provide reading materials for learners and denies them of invaluable learning opportunities. In addition, the lack of access to pre-school, is a major factor which affects the performance of learners in their latter schooling years.

Like the PEI report, the Department of Education's National Systemic Evaluation Report (2003:53) also clearly reveals that the quality of education is affected by teaching practices. Although it is reported that most teachers received in-service training from Provincial Departments of Education, their ability to effectively implement OBE is questionable.

Other factors which influence learning and teaching are overcrowded classrooms, the ineffective use of contact time, unsafe conditions at school, high levels of absenteeism of learners and teachers and the poor attitude and morale of teachers.

Given the performance of learner performance as discussed in 4.3.2 and illustrated in Table 4.7, it is concluded that the national average of 30% for Numeracy and 54% for both Literacy and Life-skills is cause for concern and one cannot but agree with both studies, that intervention measures have to be put in place to ultimately make the gains which the new curriculum strives for.

In an attempt to determine how successful the efforts of the Northern Cape Education Department has been in trying to rectify the situation, Chapter 5 will administer the data obtained from questionnaires and interviews and interpret the results.

CHAPTER 5

THE ADMINISTRATION OF THE DATA OBTAINED FROM THE QUESTIONNAIRES AND INTERVIEWS AND AN INTERPRETATION OF THE RESULTS

5.1   Introduction

Given the fact that the Northern Cape Education Department was acutely aware of the difficulties teachers were encountering whilst implementing OBE in the initial phases of implementation, as referred to in Chapter 3 and 4, concerted efforts were undertaken to provide the necessary guidance and support to teachers. These efforts included the development of Learning Area Guidelines for Senior Phase teachers in the year 2001, which were similar to the progress maps developed and produced by Gauteng and the Western Cape, as referred to by Potenza and Monyokolo (1999:231). In addition, the province trained learning area managers and teachers to select and evaluate learning and teaching support material required for the implementation of the OBE curriculum and appointed dedicated teams of learning area managers at provincial and district level. These officials were appointed to provide the necessary on-site guidance and support to teachers.

The research, therefore, attempts to investigate the impact of curriculum transformation on classroom practice after increased support and guidance had been given by the Northern Cape Education Department, as well as after considering the findings of the recommendations of the Curriculum Review Committee referred to in 3.4.4.

The research sample consisted of 25 principals, 50 teachers and 200 learners from a selection of high schools from the ex-Education Departments, as well as rural and deep rural farm schools throughout the Northern Cape. A representative from each of the 25 school governing bodies, as well as 29 district officials, who provide support to the schools were included in the sample. Questionnaires were compiled with the intention of finding out the impact of curriculum transformation on classroom practice. This implies determining if there are shortcomings whilst implementing OBE, as well as highlighting factors which contribute positively or negatively towards the implementation of the curriculum.

This chapter thus analyses the data which was collected from the completed questionnaires and interviews and interprets the findings. Comments and suggestions are also offered.

5.2   **Research Method**

After considering the characteristics of a good questionnaire, as pointed out by Mahlangu (1987:84-85), Norval (1988:60) and Van den Aardweg (1988:190), the researcher decided on open ended questionnaires.

The method was predominantly used, as the advantages highlighted by Mahlangu (1987:94-95) and Norval (1988:60), far outweighed the disadvantages outlined by Van den Aardweg and Van den Aardweg (1988:190), Kidder and Judd (1986:223-224) and Mahlangu (1987:).

Some of the advantages referred to by Mahlangu (1987:94-95) and Norval (1988:60) are the following:

- Written questionnaires are the least expensive means of data gathering.
- Possible biases are completely eliminated with a written questionnaire.
- A questionnaire provides the respondent sufficient time to consider answers before responding. This can be done in the respondents own time and in a relaxed atmosphere.
- Questionnaires reach a large sample of the target population simultaneously
  - A questionnaire permits anonymity, increasing the researcher's chances of receiving responses which genuinely represent a person's opinions or perceptions.
  - Generally, the data obtained from questionnaires can be more easily analysed and interpreted than those from verbal responses.
  - A questionnaire solves the problem of not finding a respondent at home. When the target population to be covered is widely spread, the questionnaire which is usually mailed, is the best possible method.
  - Interview "errors" may seriously undermine the reliability and validity of the research results. The use of the questionnaire eliminates problems related to interviews.
  - Respondents may answer questions of a personal or embarrassing nature more frankly than in a face to face situation with an interviewer. In some cases respondents report less than expected and make more critical comments in a questionnaire.

- Data obtained from questionnaires can be easily
  compared
  and inferences can be made.

Relevant questions were also asked through structured interviews, as they provide much more flexibility and allows the researcher to correct misunderstanding or answer questions that the research may have. Other important information was also derived from discussions and conversations with participants in the research. All participants were promised that information retrieved, would be confidential and that their identities would be protected.

5.2.1 <u>Questionnaires</u>

Three questionnaires for specific target groups were prepared. Learning area managers who support and guide the Senior Phase teachers and teachers presently teaching Grade 9 learners, were asked to respond to questions ranging from the dissemination of the curriculum, the quality of the transactions between teacher and learner, methodologies used, provision and use of resources, to the contextual realities of the school. Grade 9 learners mainly responded to statements on the quality of transactions, methodologies used and the contextual realities of the school.

On construction of the questionnaire, the researcher attempted to avoid ambiguity, vagueness, bias and unnecessary technical language. The questionnaires were sub-divided into two sub-sections. Section A focused on the following:

- **The dissemination of the curriculum.**
  The questionnaire probed the nature of the
  dissemination of the curriculum, as well as
  whether implementers have a basic understanding
  of the principles underpinning the curriculum.

- **The current learning and teaching situation with regard to the quality of transactions between teacher and learner.**

  In terms of the quality of transactions between teacher and learner, the teacher's ability to establish a satisfactory classroom climate and provide interesting lessons were investigated. The researcher particularly probed whether teachers provide sufficient time to develop the learner's reading and writing skills, given the perception that with the implementation of C2005, these two areas were severely neglected. The questionnaire also focused on whether lessons are structured for learners to grasp concepts and skills incrementally, whether lessons are reflective of knowledge and skills which are relevant to the child's life-world and whether continuous assessment is an integral part of the teaching and learning process.

- **Methodology.**

  To obtain information on methodologies currently used during classroom practice, responses were sought on the following:
  - Teachers employ a variety of teaching methods
  - Teachers provide for the individual needs of learners
  - Teachers provide multiple opportunities for learners to succeed
  - Teachers employ teaching methods with social learning goals, which teach democratic principles, e.g. group discussions.

- **Provision and use of resources.**

  The questionnaire also sought information regarding
  the availability and use of resources, as this aspect
  is deemed key to effective curriculum implementation.

- **Contextual realities at school.**

  It was also necessary to obtain information regarding
  the contextual realities of the school, as this could
  affect curriculum implementation, either negatively
  or positively.

Section B provided respondents with an opportunity to list other problems they encountered during the implementation of the OBE curriculum, as well as offer suggestions on curriculum implementation or teaching and learning in general.

All three questionnaires for the specific target groups were forwarded to the respondents on the 23 March 2004.

5.2.2   Interviews

Twenty-five principals and twenty-five school governing body representatives from
the various schools availed themselves for the interviews. The interviews which also focused on the areas mentioned in 5.2.1 took place during the months of April and May 2004 and concentrated on finding out whether the curriculum was being imlemented successfully in schools.

5.3   Findings of the Research

5.3.1   Numbers of questionnaires returned

The researcher distributed thirty-two questionnaires to the learning area managers who service Senior Phase teachers across the Northern Cape. Twenty-nine questionnaires were returned.

This implies that (92,6%) of the thirty two (100%) Grade 9 teachers returned the questionnaires.

Two hundred questionnaires were distributed to learners. One hundred and seventy-two, which is equivalent to (86%) were returned.

Twenty-five principals (100%) and twenty-five (100%) school governing body representatives were interviewed.

5.3.2   Responses to the various questionnaires

The following discussion will be based on the responses from the learning area managers, teachers and learners. The results on common questions will be tabulated together and discussed.

The research aims to investigate the impact of curriculum transformation on classroom practice after guidance and support had been provided, as well as after the findings of the Curriculum Review Committee had been considered as pointed out in 5.1. Statements are hence grouped under the following headings as referred to in 5.2.1.

- the dissemination of the curriculum
- the current learning and teaching situation with regard to the quality of transactions between teacher and learner
- methodology
- provision and use of resources
- contextual realities at school

5.3.2.1 <u>The dissemination of the curriculum</u>

Kgobe (2001:7) highlights change and change processes by drawing from the works of Fullan (1986), in his assessment of the South African schooling system. He points out that the clarity of the new innovation becomes a crucial aspect in influencing the nature of the responses of those who must implement change. He further says that if implementers have a basic understanding of the principles behind the change and value the innovation, they often exert additional effort that may be required for implementation. Carl (1995:135) makes a similar comment.

If one is to move from this premise, it is important to establish how the OBE curriculum which is the *"new innovation"*, was disseminated to the implementers.

(a) <u>During orientation teachers were provided with an opportunity to critically reflect on and understand the principles underpinning the OBE curriculum</u>

The statement was made to establish whether teachers were provided with an opportunity to critically reflect on and understand the principles underpinning the OBE curriculum. Table 5.1 reflects the result.

Table 5.1   <u>**During orientation teachers were provided an opportunity to**</u>
<u>**critically reflect on and understand the principles**</u>
<u>**underpinning the OBE curriculum**</u>

	Learning Area Managers	%	Teachers	%
Agree	19	65,5	32	64
Disagree	10	34,5	18	36
Total	29	100%	50	100%

A large number of learning area managers (65,5%) and teachers (64%) say that during orientation, teachers were provided with an opportunity to critically reflect on and understand the principles underpinning the OBE curriculum.

Teachers (64%) contend that orientation sessions were interesting but they needed much more time to interrogate and discuss the practical implementation. A cause for concern, however, is that learning managers (34,5%) who are supposed to ensure that the curriculum is being implemented effectively, claim that teachers were not provided an opportunity to critically reflect on and understand the principles underpinning the OBE curriculum. They cite the following reasons:

- time for orientation limited
- teachers unresponsive during orientation
- teachers not convinced that OBE is workable

The teachers (36%), who disagree, blame the department of education for the lack of opportunities to reflect on and understand the principles underpinning the curriculum.

They say that:

- Learning area managers who do the orientation are inexperienced and cannot explain principles practically.
- Presentations are usually read from notes.
- Orientation sessions are too short, too few and far between.
- When learning area managers respond to questions put to them, their responses are usually vague and do not help much.

As the principles underpinning OBE, namely, clarity of focus, design down, expanded opportunities and high expectation's, drive the effective implementation of the curriculum, as illustrated by Kramer (1999:25-34), it is vital that sufficient opportunities are provided for teachers to fully understand the principles practically, as well as critically reflect on how to implement OBE within the contexts they find themselves. Given the responses, it seems as if learning area managers, who provided the orientation, did not consider the criticism levelled against them as early as 1998, when the Grade 1 roll-out of OBE began.

With regard to the time for orientation, the research deduces that little consideration has been given to the 80 hours of in-service training per year, which is set out in the Employment of Educators Act 76 of 1998 3.2(d) as illustrated by Brunton and Associates (2003:c-63).

(b) **During orientation, terminology was explained in a practical and understandable manner**

Both learning area managers and teachers were asked whether terminology was explained in a practical and understandable manner. The result in Table 5.2 illustrates the results from both learning area managers and teachers.

Table 5.2   **During orientation terminology was explained in a practical and understandable manner**

	Learning Area Managers	%	Teachers	%
Agree	24	82,8	36	72
Disagree	5	17,2	14	28
Total	**29**	**100%**	**50**	**100%**

A large majority of learning area managers (82,8%) and teachers (72%) agree that terminology was explained in an understandable manner. Some of the teachers (72%) again comment on limited time, but comment on the positive dispositions displayed by the learning area managers that presented the orientation sessions.

Others, on the other hand, learning area managers (17,2%) and teachers (28%) argue that this is not the case. Some of the teachers (28%) say that very little time was spent on consolidating and understanding of the terminology which they are supposed to use. This is not a surprising scenario given the findings of the Curriculum Review Committee (2000:18) referred to in 3.4.3.2(a) which concluded that terminology used in C2005 was too complex and confusing. It is, however, disconcerting that learning area managers did not manage to rectify the situation.

(c)   **During orientation, teachers were provided with an opportunity to practically develop a learning programme or lesson plan**

To further establish the nature of disseminating the curriculum, learning area managers and teachers were asked whether orientation programmes provided opportunities for the development of learning programmes or lesson plans. Table 5.3 reflects the results.

Table 5.3   **During orientation teachers were provided an opportunity to practically develop a learning programme or lesson plan**

	Learning Area Managers	**%**	**Teachers**	**%**
Agree	10	34,5	18	36
Disagree	19	65,5	32	64
Total	**29**	**100%**	**50**	**100%**

Learning area managers (34,5) and teachers (36%) say that during orientation, opportunities were provided to practically develop a learning programme or lesson plan, while more learning area managers (65,5%) and teachers (64%) disagree.

The neglect of this important aspect definitely impacted negatively on implementation, as illustrated in the findings of the Curriculum Review Committee, referred to in 3.4.3.1.

Feedback from learning area managers, after monitoring implementation, reveals that the range statements, performance indicators and expected levels of performance, indeed, failed to act as mechanisms which assisted teachers to sequence and pace the knowledge, values, skills and attitudes during learning experiences. They say that the situation arose because teachers were not provided with ample practical opportunities to develop learning programmes or lesson plans during orientation. When asked why they did not take heed of the lessons learn't from the roll-out of the curriculum in Grade 1, they again refer to not having sufficient time.

The research thus deduces that the orientation in preparation for implementation was, indeed inadequate as pointed out by the Curriculum Review Committee referred to in 3.4.3.3(a).

5.3.2.2   **The quality of transactions between teacher and learner in the current teaching situation**

As the Northern Cape Education Department was acutely concerned with concerns raised by learning area managers, teachers and frank criticism from educationists, such as the likes of Professor Jansen (1999(b),(c),(d)), as well as the recommendations of the Curriculum Review Committee, a huge effort was made to provide teachers with the necessary on-site support they needed. Additional learning area managers were employed in the year 2002, despite an already tight provincial budget. The question, however, arises: was the increase in learning area managers, able to provide the necessary assistance to teachers, so as to improve the quality of transactions between teachers and learners? This implies: are teachers able to establish a satisfactory OBE classroom climate, are teachers able to prepare interesting lessons, are teachers able to interpret the curriculum, so as to provide learners with ample opportunities to develop their reading and writing skills, etc.?

(a)   **Teachers are equipped to establish a satisfactory OBE classroom climate by providing co-operative, well directed and purposeful activities**

This statement was directed to both learning area managers and teachers. Table 5.4 reflects the result.

Table 5.4   <u>Teachers are equipped to establish a satisfactory classroom climate, providing co-operative, well directed and purposeful activities</u>

	Learning Area Managers	**%**	**Teachers**	**%**
Agree	11	37,9	12	24
Disagree	18	62,1	38	76
Total	**29**	**100%**	**50**	**100%**

Both learning area managers (62,1%) and teachers (76%) are of the opinion that teachers are still not equipped to establish a satisfactory classroom climate, providing co-operative, well directed and purposeful activities. Some of the learning area managers (62,1%) claim that teachers are not able to do so, due to:

- not qualified in specific learning area
- large classes
- inability to discipline learners
- inability to select appropriate learning and teaching support material
- very little planning
- their inability to visit schools more often

Teachers (76%) blame their inability to establish a satisfactory classroom climate on aspects such as:

- incompetence of learning area managers who read from notes when providing guidance
- lack of practical demonstrations
- large classes
- language difficulties encountered in the classroom

- insufficient learning and teaching support material
- ill-disciplined learners

The learning area managers (37,9%) and teachers (24%), who say that teachers are equipped, assert that co-operative, well directed and purposeful activities bring about a much more enjoyable classroom climate. Discipline problems are non-existent and learners are eager and motivated to excel. Some of the respondents claim that the following activities are evident in such classes:

- differentiated tasks
- debates
- research articles
- posters and collages
- group discussions
- surveys

(b)   Lessons are well prepared and interesting

To further establish whether teachers were preparing and providing interesting lessons, only learners were asked to respond. Table 5.6 reveals the result.

Table 5.6   Lessons are well prepared and interesting

	Learners	%
Agree	82	47,7
Disagree	90	52,3
Total	**172**	**100%**

The responses were relatively balanced in this regard. Learners (47,7%) claim that lessons are well prepared and interesting. They claim that they are involved in activities such as investigations, discussions and projects and continue making new discoveries.

Fifty-two point three percent (52,3%) of the learners, however, feel that they are passive and that lessons are boring.

(c) **Teachers provide sufficient time to develop the learner's writing skills**

Given the claims made by Pile and Smythe (1998:46), which is outlined in 4.2.2.4(e), and deductions made from the National Systemic Evaluation Report referred to in 4.3.2.3, learning area managers and teachers were requested to respond to the following questions:

Table 5.7 **Teachers provide sufficient time to develop the learner's writing skills**

	Learning Area Managers	**%**	**Teachers**	**%**
Agree	9	31	32	64
Disagree	20	69	18	36
Total	**29**	**100%**	**50**	**100%**

A large percentage of learning area managers (69%) claim that teachers still do not provide sufficient time to develop the learner's writing skills. Sixty-four percent (64%) agree that this is the case.

Some of the teachers (64%) say that they spend most of their teaching time on explanations. They also point out that the written parts of assignments or projects are to be completed at home. In most cases learners do not complete these tasks.

Learning area managers (69%) contend that:

- learners do not write extended pieces, very little evidence of creative writing or answering of essay type questions
- comprehension tasks are decontextualised and require one word answers, which implies higher levels of thinking have not been stimulated
- note books contain very little written information
- books are not marked
- books are marked, infrequently
- corrections consist of a single word

These findings corroborate those of Taylor and Vinjevold (1999:152) referred to in 4.2.2.4(e).

(d) **During lessons, learners are provided with opportunities to develop their reading skills**

Although many a researcher, including Pile and Smythe (1998:67-91) and Duncan (1998:37), reveal that very little time was spent on opportunities to develop the learner's reading skills during the initial stages of the OBE curriculum implementation, it must be acknowledged that there have been attempts to rectify the situation. Therefore, learning area managers and teachers were requested to respond to the question, to ascertain whether the situation has changed. Table 5.8 reveals the result.

Table 5.8 <u>**During lessons, learners are provided with opportunities to**</u>
<u>**develop their reading skills**</u>

	Learning Area Managers	**%**	**Teachers**	**%**
Agree	2	6,9	12	24
Disagree	27	93,1	38	76
Total	**29**	**100%**	**50**	**100%**

An overwhelming majority of learning area managers (93,1%) as well as teachers
 (76%) reveal that learners are not provided with opportunities to develop their
reading skills.

Learning area managers (93,1%), who guide and support all Grade 9 teachers
across the Northern Cape, say that in many classes, learners do not have the
necessary text books. They say learners are issues with photocopied material,
which is more often of poor quality.

The teachers (76%), who claim that opportunities are not provided, blame it on
the following:

- Foundation Phase teachers who did not teach the basics in
  reading
- limited time
- not capacitated to diagnose and remedy reading problems
- no distinct reading period
- language of learning and teaching, most time
  second or third language of learner

These results confirm the findings of Reeves and Long (1998(a):72-82), as
referred to in 4.2.2.4(e), that teachers find it difficult to engage learners in
interpreting longer texts which is attributed to the low reading levels of learners.

The first Systemic Evaluation scores of Grade 3 learners, referred to in 4.3.2.2, also shows similar trends. The average scores obtained for Numeracy was 30% and Literacy and Life Skills just over 50%.

The situation in the country, indeed, seems bleak in this regard. Therefore, the promotion of reading and writing has been prioritized by the new Minister of Education, Ms Naledi Pandor. Learning Area Managers, responsible for languages, have since been called to a meeting at Sol Plaatjie House, on the 12 August 2004, to map out a national plan to remedy the situation.

An article written by staff reporter, Sandi Kwon Hoo, in the Diamond Fields Advertiser, dated the 19 August (2004:3), also rings alarm bells. It refers to statistics supplied by the Read Education Trust, which points out that at high school, only thirty percent (30%) of learners presently at Grade 9 level, will not attain a Grade 12 qualification in 2007, as their literacy skills are not developed enough.

(e)   Lessons are well structured and allow learners an opportunity to grasp concepts and skills incrementally

The PEI research study referred to in 4.2.2.4(b), as well as the findings of the Curriculum Review Committee referred to in 3.4.3.2(c), highlight the fact that lessons lacked structure to incrementally develop concepts and skills. Learning area managers and teachers were, therefore, asked to respond to ascertain whether an attempt had been made to rectify the situation. Table 5.9 reveals the result.

Table 5.9   **Teachers' lessons are well structured and allow learners an opportunity to grasp concepts and skills incrementally**

	Learning Area Managers	%	Teachers	%
Agree	7	24,1	32	64
Disagree	22	75,9	18	36
Total	**29**	**100%**	**50**	**100%**

A large percentage of learning area managers (75,9%) emphatically disagree that this is the case, only (36%) teachers disagree.

The learning area managers (75,9%), who disagree, say the following to motivate their responses:

- in many instances teachers do not carry out a baseline assessment of learners
- teachers do not provide opportunities for learners who have achieved a specific outcome to continue with an additional assessment task or continue on their own, implying that tempo and pace of many learners is determined by the weaker learner
- teachers tend to spend a large proportion of time on sections of work that learners have already managed
- learners are not guided during investigations
- relationships between structure and function are not being explained
- learners receive handouts with instructions to complete assignments, without any guidance on procedures, or practice of the required skill.

These findings corroborate the findings outlined in 4.2.2.4(d).

(f) **Lessons are reflective of knowledge and skills which are relevant to the child's life-world**

This question was asked to ascertain whether lessons were indeed reflective of knowledge and skills which learners require in realistic settings. Kramer (1999:60) provides an example, stating that, in order for learners to be economically-aware consumers, employers and employees in the future, tasks should be set in authentic settings, such as factories, businesses, banks or any other environment where economic decisions are taken. Table 5.10 shows the result.

Table 5.10 **Lessons are reflective of knowledge and skills which are relevant to the child's life-world**

	Learning Area Managers	**%**	**Teachers**	**%**
Agree	8	27,6	27	54
Disagree	21	72,4	23	46
Total	**29**	**100%**	**50**	**100%**

Learning area managers (72,4%) again disagree on the matter, whereas only (46%) of teachers disagree.

Twenty seven point six percent (27,6%) of learning area managers and teachers (54%) claim that lessons are indeed reflective of knowledge and skills which are relevant to the child's life-world.

The fact that the majority learning area managers (72,4%) and a smaller percentage of teachers (46%) disagree on the matter, is cause for concern.

Learning area managers claim that teachers are completely out of touch with the child's reality and say that assessment tasks found in learner portfolios are usually copied from some or other publication which was written for a learner in a completely different context. They cite the "Wonderboom Reeks" as an example. They further claim that most times these assessment tasks do not assess the skills, knowledge, values and attitudes which teachers report against. This further suggests that lessons are definitely not structured to grasp content and skills incrementally, let alone being relevant to the child's life-world.

Some learning area managers (8%) agree that real-world examples are frequently used, but point out that examples are rudimentary and, in the majority of cases, do not serve as entry into higher levels of conceptual thinking. An example is cited whereby a learning area manager claims that during a Science lesson for Grade 9 learners, they were asked to list sources of water in the surrounding area. The lesson never evolved into anything else. It is felt that the mechanics of sinking a borehole could be easily integrated into such a lesson, as such a skill would be useful in the dry arid Northern Cape. The Sciences would then be integrated in a meaningful way with Technology.

(g) **Continuous Assessment is an integral part of the teaching and learning process**

Assessment is viewed by many, including Kramer (1999:46), as *"a planned series of different events and actions , over the period of the learning process, to gather as much relevant information in as many effective ways as possible, to assist in making decisions about the learner's progress".* Given this definition, learning area managers and teachers were asked to respond to whether continuous assessment which is mandatory according to the Education Department Assessment Policy referred to in 4.3.1.1(d), is indeed an integral part of the teaching and learning process. Table 5.11 reflects the result.

Table 5.11 <u>**Continuous Assessment is an integral part of the teaching and**</u>
<u>**learning process**</u>

	Learning Area Managers	%	Teachers	%
Agree	7	24,1	42	84
Disagree	22	75,9	8	16
Total	**29**	**100%**	**50**	**100%**

Respondents differ radically in this regard. Twenty-four point one percent
(24,1%) of learning area managers and teachers (84%) are of the opinion that
assessment is an integral part of the teaching and learning process.

Learning area managers (75,9%) and teachers (16%) disagree. Learning area
managers who disagree claim that, in most cases, assessment tasks are an *"add
on"* given to learners so that portfolios are completed. They also say that
teachers do not use valuable assessment techniques, such as observation and
questioning, but tend to do short tests which are given at the end of the lesson.
Teachers also have a tendency of giving projects which they expect learners to
complete at home.

Learning area managers (24,1%) and teachers (84%), who say that continuous
assessment is indeed an integral part of the learning teaching process, point out
the following advantages:

- continuous assessment is much more participatory,
  resulting in the development of co-operative skills
- continuous assessment provides different opportunities to
  gather evidence, hence the multiple opportunities notion
  comes into effect
- if continuous assessment is done throughout the learning
  experience, adjustments can almost be made immediately
- learners are more at ease when doing group tasks or
  assignments

These advantages are also referred to by Olivier (1997:15-16), Van der Horst and McDonald (1997:27-31) and Luczyn and Pretorius (1998:3-8).

5.3.2.3   Methodologies currently used

Kramer (1999;99) contends that learning depends on teachers having a wide variety of approaches, creativity in using them and the insight into knowing when to use one set of techniques as opposed to another. He also says that teaching cannot be mechanical because all people are different, therefore teaching and learning needs to be varied and refers to the experiential learning models of Kolb, Schurr and Wiggins. Precisely because the OBE teacher has to understand how to cope with different learning styles of learners, the research investigates whether teachers are indeed using a variety of teaching methods.

(a)   Teachers employ a variety of teaching methods

Learning area managers, teachers and learners were requested to respond to whether teachers indeed employed a variety of teaching methods and also to elaborate on the methods being used. Table 5.12 shows the result.

Table 5.12   Teachers employ a variety of teaching methods

	Learning Area Managers	%	Teachers	%	Learners	%
Agree	20	69	37	74	143	83,1
Disagree	9	31	13	26	29	16,9
Total	**29**	**100%**	**50**	**100%**	**172**	**100%**

A large percentage of learning area managers (69%), teachers (74%) and learners (83,1%) agree that a variety of teaching methods are used. They claim that there definitely is a focus on the application of knowledge.

Learning area managers and teachers list the following amongst others:

- demonstrations
- experimentation
- group work
- video presentations
- team teaching
- excursions

Some of the learners (83,1%) say that teachers used group work sessions, experimentation, demonstrations and video presentations. Although some learning area managers (31%), teachers (26%) and learners (16,9%) disagree, Table 5.10 reflects a noticeable shift from the traditional teacher talk, to a situation which provides opportunity for active learning and self discovery.

(b) Teachers provide for the individual needs of learners

Given the fact that advocates of OBE tout it as a means of meeting the needs of all learners, regardless of their economic status, environment, race or disabling condition, as reflected by Capper and Jamison (1993:428), learning area managers, teachers and learners were asked to respond whether it was presently the case. Table 5.13 reflects the result.

Table 5.13 **OBE provides teachers with an opportunity to take the individual needs of learners into account**

	Learning Area Managers	%	Teachers	%	Learners	%
Agree	11	37,9	16	32	52	30,2
Disagree	18	62,1	34	68	120	69,8
Total	**29**	**100%**	**50**	**100%**	**172**	**100%**

A large majority of learning area managers (62,1%), teachers (68%) and learners (69,8%) say that it is definitely not the case. Learning area managers (62,1%) and teachers (68%) say that it is virtually impossible to provide for the needs of individual learners, as classes are much too large. Some of the teachers (68%) comment on the additional burden of administrative responsibilities placed on them by departmental staff.

A large percentage of learners (69,8%) also claim that detailed explanations are not provided, even if they ask. They contend that there are too many learners who need individual help.

Some of the teachers (32%), who claim that they are able to take the individual needs of learners into account, say they do this by team teaching, therefore sharing responsibility for groups of learners.

(c) **Teachers provide multiple opportunities for learners to succeed**

As the provision of expanded or multiple opportunities for learners is a key principle underpinning OBE, as illustrated by Spady (1994(b):14), Brandt (1993:66) and Kramer (1999:115), learning area managers, teachers and learners were asked to respond to whether the principle is taken into account during classroom practice. Table 5.14 reflects the following:

Table 5.14   <u>**Teachers provide multiple opportunities for learners to**</u>
<u>**succeed**</u>

	Learning Area Managers	%	Teachers	%	Learners	%
Agree	11	37,9	17	34	33	19,2
Disagree	18	62,1	33	66	139	80,8
Total	**29**	**100%**	**50**	**100%**	**172**	**100%**

A large percentage of learning area managers (62,1%), teachers (66%) and
learners (80,8%) disagree. Learning area managers and teachers, in the main,
provide the following reasons:

- classes much too large and unmanageable
- the workload of teachers makes it impossible, as
  they teach both in the GET and FET band
- attitudes of learners
- absenteeism of learners
- limited time due to a crowded year plan
- the notion of providing multiple opportunities in
  tension with fixed exit assessment tasks, which
  are written in Grade 9, during the month of October,
  throughout the country.

In addition, learners (80,8%), who disagree, say that teachers provide only one
opportunity for them to complete a task. In most cases, they move on to another
set of work without getting to grips with that which was not understood.

This gives the impression that lessons are definitely not structured, taking into account the fact that all four principles, namely, clarity of focus, multiple opportunities, high expectations and design down should work together to strengthen the conditions enabling teachers and learners to be successful.

Be this as it may, thirty-eight percent (37,8%) of learning area managers and teachers (34%) say that this indeed takes place. Both sets of respondents who claim to do so, say that it is necessary, as learners bring different experiences into the classroom and have different learning styles, and abilities. They point out that learning can only take place when learners make reference to prior knowledge and when interest is stimulated.   Kramer (1999(b):7-9) reminds one of these vital elements of learning and understanding when he outlines the learning theories of Piaget and Kolb.

(d) **Teachers employ teaching methods with social learning goals which teach democratic principles, e.g. group discussions**

To further glean whether the implementation of the OBE curriculum is indeed responding to bringing about a *"prosperous, truly united, democratic and internationally competitive country, with literate, creature and critical citizens…."*, as referred to by the Department of Education (1997(b):3), learning area managers, teachers and learners were requested to respond to whether teachers employ social learning goals which teach democratic principles, e.g. group discussions. They were also asked to provide reasons for the answers. Table 5.15 reflects the results.

Table 5.15 **Teachers employ teaching methods with social learning goals which teach democratic principles, e.g. group discussions**

	Learning Area Managers	%	Teachers	%	Learners	%
Agree	11	37,9	17	34	33	19,2
Disagree	18	62,1	33	66	139	80,8
Total	**29**	**100%**	**50**	**100%**	**172**	**100%**

Only (37,9%) of learning area managers agree that teachers employ teaching methods with social learning goals, while teachers (66%) and learners (80,8%) agree that it is being done.

The learning area managers (62,1%) assert that *"whole class teaching"* takes place most of the time. They add that, when group discussions did take place, they were not organized and learners did not know the relevance of doing the task. Groupwork, hence, deteriorated into meaningless discussion. One of the learning area managers stated that many a time, teachers were found outside of the classroom. They then claim that learners are at work solving a particular problem.

This gives the impression that the situation with regard to participatory activities and groupwork remained the same as findings outlined in 4.2.2.4(d).

The learning area managers (37,9%), who claim that teaching methods with social learning goals are employed, contend that, apart from knowledge being constructed in an organized manner, learners develop and practice skills which are vital for participation in a democracy.

Teachers (66%) who also agree, are of the opinion that such methods assist learners in understanding their co-dependence, they share workloads and assist learners who are weaker. They also say that it encourages team spirit, loyalty and stimulates leadership qualities.

The learners (80,8%), who agree that teaching methods which employ social learning goals are employed, say they feel that they contribute to finding solutions much easier, as they are able to help one another. They also say that they learn to know each other much better and, therefore, are much more considerate towards one another.

5.3.2.4   Provision and use of resources

Kruss (1998:104) alerts one to the fact that the financial resources for curriculum innovation and support in provinces was a major concern and cause for conflict, as no extra resources were allocated to ensure effective curriculum implementation.

Kgobe (2001:59) confirms that in the 1999/2000 financial year, R590 million was budgeted for learning teaching support material (LTSM), against a requirement of about R870 million. Kruss (1998:104) contends that the curriculum is being implemented without sufficient regard to the financial and organizational capacity of provinces to implement effectively and questions to what extent the policy making process has taken into account those who are ultimately responsible for translating policy into practice, in this case, the teachers.

It is against this background, that the research seeks to discover whether the necessary resources are being provided an how it is used.

(a) **Teachers have the available resources to present lessons which focus on knowledge, skills, values and attitudes**

Learning area manages and teachers were asked to respond in this regard. Table 5.16 reflects the results.

Table 5.16 **Teachers have the available resources to present lessons which focus on high knowledge, skills, values and attitudes**

	Learning Area Managers	%	Teachers	%	Learners	%
Agree	10	34,5	15	30	40	23,3
Disagree	19	65,5	35	70	132	76,7
Total	**29**	**100%**	**50**	**100%**	**172**	**100%**

Only thirty-four point five percent (34,5%) of learning area managers and teachers (30%) agree that teachers have the available resources to present lessons which focus on high knowledge, skills, values and attitudes. It must be mentioned though, that the National Systemic Evaluation Report referred to in 4.3.1.3(c), points out that Gauteng and the Northern Cape had the highest indicators for learning and teaching support material, 70,2 and 71,2 respectively.

A large percentage of learning area managers (65,5%) and teachers (70%) do not agree. They assert that, although text books and equipment are purchased, retrieval of books remains a huge problem. Other problems, such as the ordering and supply of LTSM, as well as exorbitant prices of text books are listed.

Some of the teachers (70%) also point out that reading material, such as magazines, journals and newspapers, are simply not available. They say schools cannot afford to subscribe on a regular basis, which is a major cause of frustration.

Other difficulties are:

- insufficient science equipment
- chemicals cannot be topped up due to lack of funds
- asbestos classrooms uncomfortable and not conducive to effective learning
- broken furniture
- no libraries

Learning area managers (65,5%) who disagree, make the point that although learning and teaching support materials are available, it is of very little relevance to the teaching and learning situation. They say that most times it is of very poor quality or not OBE aligned. Therefore, they believe teachers do not have the available resources to present lessons which focus on high knowledge, skills, values and attitudes. This observation gives the impression that, although funds are made available and learning and teaching support material is procured, the quality of the teaching and learning process is compromised.

The teachers (30%) who agree that they have the available resources, laud the Northern Cape Education Department for providing them with the following:

- Micro-Science kits
- Learning Channel Material
- Computer laboratories
- Television sets
- Mobile libraries

A large majority of learners (76,7%) are also of the opinion that teachers have insufficient resources. One respondent comments: *"when we do experiments, the teacher says the equipment is either broken or stolen. The teacher then explains the concept on the board"*.

Other respondents comment on not having access to computer laboratories at school, despite the fact that they are available. They claim that the laboratories stay locked up most of the time.

(b) **Teachers refer learners to books, magazines, newspapers, journals, the internet, etc. in the classroom, when completing an assignment**

To delve deeper into the availability of resources, given the fact that the OBE curriculum is resource driven, learners were requested to respond. Table 5.17 reflects the result.

Table 5.17 **Teachers refer learners to books, magazines, newspapers, journals, the internet, etc. in the classroom or library, when completing a project or an assignment**

	Learners	**%**
Agree	38	22,1
Disagree	134	77,9
Total	**172**	**100%**

A large percentage of learners (77,9%) disagree on the matter. They say that most times, they resort to finding information on their own in the public library. Some learners also claim that, although the school has computers, it is out of bounds. Only teachers use the computer laboratories.

Those learners, who agree (22,1%), claim that teachers provide copies of books, magazines and journals in the classroom. They are also allowed to log onto the internet, therefore the completion of assignments is not problematic.

(c) **Teachers are equipped with the necessary skills to select and develop the necessary learning and teaching support material needed in the classroom**

In an attempt to gauge whether teachers are en-skilled in this important process, learning area managers and teachers were asked to respond. Table 5.18 reflects the result.

Table 5.18 **Teachers are equipped with the necessary skills to select and develop the necessary learning and teaching support material needed in the classroom**

	Learning area managers	%	Teachers	%
Agree	10	34,5	18	36
Disagree	19	65,5	32	64
Total	**29**	**100%**	**50**	**100%**

Learning area managers (65,5%) and teachers (64%) say that it is not the case. The teachers (64%) in particular point out once more, that there just is not enough time to develop their own material. They say that they depend on learning area managers or teacher unions to advise them on LTSM which can be purchased.

Learning area managers (34,5%) and teachers (36%), who agree, say that some teachers are trained. They claim that the Northern Cape Education Department trains teachers before they take part in the provincial LTSM evaluation process.

5.3.2.5   <u>**Contextual realities of the school and system**</u>

Much has been said about the shortcomings of curriculum implementation in Chapter 4 and most of the questionnaires in Chapter 5. The next set of questions was designed to determine the context in which the curriculum is being implemented and if these contextual realities inhibit effective implementation.

(a)   <u>**School management teams are sensitive to curriculum transformation in terms of planning, co-ordinating and provision of human resources**</u>

Learning area managers and teachers were asked to respond. Table 5.19 reflects the result.

Table 5.19   <u>**School management teams are sensitive to curriculum transformation in terms of planning, co-ordinating and provision of human resources**</u>

	Learning area managers	**%**	**Teachers**	**%**
Agree	12	41,4	16	32
Disagree	17	58,6	34	68
Total	**29**	**100%**	**50**	**100%**

Fourty-one point four percent (41,4%) of learning area managers and teachers (32%) claim that school management teams are sensitive to curriculum transformation in terms of planning, co-ordinating and provision of human resources.

A much larger percentage of learning area managers (58,6%) and teachers (68%) disagree. Teachers, in particular, point out that school management teams are still too autocratic. One teacher says, *"they instruct one to teach learning areas, which they full well know I am not qualified to teach".*

Other comments are:

- time-table loaded with Grade 10-12 Mathematics as well as Technology, Life Orientation and Arts and Culture in Grade 8 and 9
- the workload of language teachers not taken into account
- expected to be part of fundraising committees and cultural activities, without consultation.

The above findings gives one the impression that there is too little involvement of staff members and that teachers are generally unhappy with their lot. Kramer (1999:170) reminds us that modern ideas of leadership places strong demands on communication between management and staff and Van Schalkwyk (1994:14) points out that schools cannot perform their functional tasks, which is teaching and learning effectively, if they are poorly managed.

(b) **Teachers are able to complete work scheduled for the year**

In an attempt to further glean the extent of planning and co-ordinating of activities, learning area managers and teachers were asked whether teachers are able to complete work scheduled for the year. Table 5.20 reflects the result.

Table 5.20 **Teachers are able to complete the work scheduled for the year**

	Learning area managers	%	Teachers	%
Agree	8	27,6	3	6
Disagree	21	72,4	47	94
Total	**29**	**100%**	**50**	**100%**

Learning area managers (72,4%) and teachers (94%) claim that teachers are not able to complete the work scheduled for the year. A large percentage of respondents claim that large classes and the provision of multiple opportunities render them unable to complete their work.

Others mention the following reasons:

- large classes
- too many administrative duties
- interruptions, such as short notice, meetings called by school management team,
- absenteeism of learners

Some respondents also claim that the tempo and pace of the learning teaching situation is slowed down due to language problems encountered by learners, as well as the non-completion of projects or assignments.

Another respondent comments on valuable time being eroded due to late-coming of learners.

The responses give an indication, that teachers lack skills to manage learners, as well as techniques to implement an array of methodologies which will interest and stimulate learning.

(c) **Teachers are involved in the interpretation of the curriculum and planning of learning programmes**

This question was included to find out how involved teachers are in the planning and interpretation of the curriculum. Learning area managers and teachers were asked to respond.

**Table 5.21   Teachers are involved in the interpretation of the curriculum
and planning of learning programmes**

	Learning area managers	%	Teachers	%
Agree	29	100	50	100
Disagree	-	-	-	-
Total	**29**	**100%**	**50**	**100%**

All learning area managers (100%) and teachers (100%) claim that interpretation
of the curriculum and planning of learning programmes indeed takes place.

Learning area managers point out that planning takes the form of grade planning
and then classroom planning. They say that grade planning allows teachers to
decide on what will be taught. Some learning area managers, however,
comment on the fact that grade planning is the most problematic, as some
teachers find it difficult to consult with other team members.

Kramer (1999:154) also comments on what he calls grade level planning. He
says that changing grade plans means changing the school plan and this affects
other educators, hence individual teachers cannot change a grade plan without
consultation and agreement of the entire team.

Teachers are of the opinion that their involvement in this important area provides
them with much more confidence to tackle their duties. They say that planning
together affords them an opportunity to share weaknesses and best practices,
which in effect assists them with their professional growth. They comment,
however, that learning area managers are seldom available to guide and support
them.

The responses from learning area managers and teachers, undoubtedly point out that planning is deemed a vital element of effective curriculum implementation, and, therefore, should continue to get the attention it deserves.

(d) **Regular learning area meetings arranged by district personnel are a necessity**

Having concluded that grade planning and classroom planning meetings were an absolute necessity, teachers and learning area managers were asked whether regular learning area meetings arranged by district personnel is a necessity. Table 5.22 reflects the result.

Table 5.22 **Regular learning area meetings arranged by district personnel are a necessity**

	Learning area managers	%	Teachers	%
Agree	29	100	43	86
Disagree	-	-	7	14
Total	**29**	**100%**	**50**	**100%**

All learning area managers (100%) deem these meetings an absolute necessity. They say that it enables them to share new developments in the learning area. One of the learning area managers stated that it enabled them to put teachers in touch with interesting projects and competitions being run by private agencies. One example noted is the million rand project, which is being run by the Stock Exchange. The project in itself provided a real-life challenge to learners, as valuable knowledge, skills, values and attitudes could be achieved.

Other learning area managers say that it provides them with an opportunity to make the contents of circulars and policy documents more meaningful to teachers. The Senior Phase Assessment Guidelines is cited in particular.

Teachers (86%) generally agree that such meetings are necessary. They echo the sentiments of Dillon-Peterson (1981:3) Joyce (1981:117) and Bradley (1987:192) and claim that these meetings enable them to stay abreast of new developments in their learning areas, as well as improve the way they teach.

Those teachers (14%) who do not deem such meetings necessary, assert that learning area managers are ill-prepared at such meetings. One respondent comments, *"they seldom lead discussions in a meaningful way and cannot advise one how to solve problems"*.

Never the less, a large percentage of teachers (86%) deem such in-service meetings vital for professional development and growth.

(e) **Learning area managers monitor, guide and support curriculum implementation regularly**

The following statement was made to establish whether learning area managers, who were increased in the year 2002, in an effort to provide the necessary support to schools, were able to monitor, guide and support curriculum implementation regularly. Learning area managers and teachers were asked to respond. Table 5.23 reflects the result.

Table 5.23   Learning area managers monitor, guide and support
curriculum implementation regularly

	Learning area managers	%	Teachers	%
Agree	4	13,8	7	4
Disagree	25	86,2	43	96
Total	**29**	**100%**	**50**	**100%**

A large percentage of learning area managers (86,2%) and teachers (96%) disagree. Learning area managers claim that there are too many schools for them to attend to and point out that they lacked the necessary transport. Some of the respondents referred to the fact that one kombi was assigned to the team of learning area managers.

They deemed this arrangement impractical, as they felt that they could not attend to teachers who needed guidance and support, as the kombi would follow a fixed route set out by the district curriculum co-ordinator at the beginning of each month. This would sometimes imply that two or three schools are supported per day. This kind of support is deemed insufficient. Some respondents also comment on the fact that some teachers needed guidance in the classroom, but this was becoming very difficult with the confusing messages signalled by those who are promoting the implementation of the Integrated Quality Management System.

The teachers (86%), who, like learning area managers, disagree, assert that monitoring, guidance and support is essential if they are expected to gain more confidence. They say that they would welcome practical demonstrations, coaching, team teaching and mentoring. Some of the respondents also comment on the fact that learning area managers visit schools too briefly.

One respondent states *"I have illusions of sorting out my problems, when Ms Maribe is with me, but just as I find my feet, she is missing"*.

The above discussion clearly suggests that teachers are in dire need of much more regular guidance and support.

(f) **Teachers are able to manage the administrative and organizational tasks with ease, e.g. recording and reporting**

Having established the extent to which teachers are monitored, guided and supported, the research sought to understand whether teachers were able to cope with administrative and organizational tasks. Table 5.24 reflects the result.

Table 5.24 **Teachers are able to manage the administrative and organizational tasks with ease, e.g. recording and reporting**

	Learning area managers	%	Teachers	%
Agree	-	-	-	-
Disagree	29	100	50	100
Total	**29**	**100%**	**50**	**100%**

There was an emphatic disagreement by all the respondents. Learning area managers (100%) provide the following reasons:

- classes much too large
- recording and reporting forms changed frequently by provincial office
- too many forms to fill in

Teachers (100%) also remark on the following:

- classes much too large to keep recording up to date
- formative recording lags behind due to the fact that the learners do not meet dead-lines
- learning area managers in districts expect recording to be completed on forms they provide. Sometimes these forms are different to those issued in official circulars from the provincial office.

One of the teachers makes the claim that *"the administrative side of OBE is a nightmare"*. The respondent further comments on the fact that officials should consult teachers more on finding solutions to these problems.

(g) **Learners are equipped with sufficient pre-knowledge when they arrive at the beginning of the year**

In an attempt to further delve into the contextual realities of the school, teachers were asked to respond. Table 5.25 reflects the result.

Table 5.25 **Learners are equipped with sufficient pre-knowledge when they arrive at the beginning of the year**

	Teachers	**%**
Agree	12	24
Disagree	38	76
Total	**50**	**100%**

Teachers overall (76%) claim that learners are not equipped with sufficient pre-knowledge when they arrive at the beginning of the year. They blame the situation on the following:

- insufficient monitoring and support by district personnel
- huge work load of teachers
- teachers not qualified to teach all aspects e.g. Dance, Drama, Fine Arts and Music genres in the learning area Arts and Culture
- absenteeism of learners
- ill-discipline of learners
- language barriers

A smaller percentage of teachers (24%) agree that learners are equipped at the beginning of the year. Some of the respondents remark on the invaluable content guidelines which were forwarded to them by the Northern Cape Education Department. One of the respondent says: *"It clearly gave direction in my school and my colleagues and I could easily negotiate the outcomes in our specific grades"*.

(h) **Learners are able to complete all the necessary tasks for their portfolios**

Learning area managers, teachers and learners were asked to respond to this statement. Table 5.24 reflects the result.

Table 5.26   Learners are able to complete all the necessary tasks for their portfolios

	Learning Area Managers	**%**	**Teachers**	**%**	**Learners**	**%**
Agree	6	20,7	6	12	32	18,6
Disagree	23	79,3	44	88	140	81,4
Total	**29**	**100%**	**50**	**100%**	**172**	**100%**

A large percentage of learning area managers (79,3%) teachers (88%) and learners (81,4%) claim that all the necessary tasks for portfolios are not completed. Responses from learning area managers and teachers again focused mainly on the lack of learning and teaching support material, ranging from insufficient text books to lack of library facilities. Some teachers also remark on the indifference displayed by parents, as well as the lack of alternatives to corporal punishment.

Some of the learners (81,4%) comment on the following:

- lack of text books
- no library facilities
- no internet facilities
- unpleasant dispositions of teachers
- very little guidance from teachers on how to complete tasks
- materials, such as charts and koki-pens too expensive to purchase
- few books and magazines at home

These comments confirm the findings in the System Evaluation report, outlined in 4.3.1.3(c) The lack of facilities and resources definitely has a negative impact on the

effective implementation of the curriculum.

5.3.3 <u>Factors which learning area managers, teachers and learners regard as major barriers to teaching and learning</u>

In an attempt to unravel other factors which bedevils the learning and teaching situation, learning area managers, teachers and learners were asked to list these factors. A large percentage of learning area managers (62%) and teachers list the following:

- inability of teachers to teach in multi-cultural classrooms
- policy overload
- too little follow-up support
- low morale of teachers
- classes too large

Fourty five percent (45%) of learning area managers and teachers (68%) regard the language of learning and teaching (LOLT) problematic, stating that the majority of learners are not first-language speakers of the LOLT in schools and this, therefore impedes the teaching and learning process.

Learning area managers (38%) and teachers (59%) also mention insufficient guidance and support to deal with learners who demonstrate barriers to learning, as well as those with behavioural problems.

Learners (72%) list factors such as insufficient resources of materials, lazy teachers, drug abuse and lack of discipline.

A smaller percentage of learners (3,7%) comment on gangsterism and point out that they sometimes find it difficult to attend school due to these activities.

Twenty-two percent (22%) of learners also mention aspects, such as dirty classrooms, disorganization at schools and the lack of respect shown to them by teachers.

The above-mentioned discussion suggests that the contextual realities of the Northern Cape schools is far from conducive for effective implementation of the curriculum.

5.4   Comments and suggestions made by learning area managers and teachers on curriculum implementation

Learning area managers and teachers were also requested to make comments and suggestions on curriculum implementation in their respective questionnaires. The comments and suggestions are as follows:

5.4.1   Comments and suggestions made by learning area managers

5.4.1.1   Establishment of Learning Area Committees

Eighty-five point six percent (85,6%) of learning area managers suggest the establishment of learning area committees and the appointment of lead teachers in their respective districts. They assert that these committees will enable teachers to network more often, enabling them to share best practices. They also comment on the fact that teachers will feel less isolated as lead teachers will be guiding them constantly.

5.4.1.2   **Provision of additional funding to curriculum sections**

Learning area managers (78%) are of the opinion that this aspect seriously hampers policy implementation. They comment specifically on lack of transport and suggest that subsidized vehicles be considered for all curriculum staff who service schools. They also suggest that in-service capacity building courses become part of their conditions of service. They contend that it will also assist them to stay abreast of developments in their learning areas.

5.4.1.3   **State funded accredited curriculum development modules**

A large percentage of learning area managers (62%) feel that state funded accredited curriculum development courses should be on offer to teachers. They say that teachers are more eager to attend such in-service training, as there is a tangible reward at the end, in the form of a certificate or a diploma.

5.4.1.4   **Stronger emphasis on the management of schools**

Learning area managers (86%) assert that this important area leaves much to be desired. They say that they have very little recourse if quality learning and teaching does not take place. Comments such as, *"I have guided and supported the teacher, but when I return, there is no evidence that learning and teaching took place. The matter was reported to the principal several times, but the situation remains the same. I find myself repeating the same things to the same teacher in the same class".*

5.4.1.5 Strengthening of teacher development section at provincial level

Learning area managers (38%) suggest that a teacher development training section should be strengthened at provincial level where teachers are able to see policy in action. This, they believe, would augment the accredited training modules. They argue that teachers would benefit more as correct lesson procedure and technique could be practiced. Teachers would constructively critique lessons which they themselves developed. They believe that such an exercise would be much more enabling and empowering.

5.4.2 Comments and suggestions made by teachers

5.4.2.1 Additional guidance and support from learning area managers

Eighty-six percent (86%) of teachers comment on the fact that they get insufficient help and support from learning area managers. They suggest that learning area managers assist them in preparing learning programmes and lesson plans practically. They also call for practical demonstrations, specifically with large classes.

5.4.2.2 Greater sensitivity to the demands of OBE implementation by school management teams

Many teachers (78,3%) comment on the insensitivity of school management teams when issuing workloads to teachers at the beginning of each year. They claim that they are not consulted and often have to teach learning areas which they are not qualified to teach. They feel that the situation leads to much frustration and dissatisfaction.

5.4.2.3   Emphasis on monitoring of Foundation Phase teachers

Teachers (81%) are acutely aware of learners who cannot read at high school. They question the promotion and progression procedure and recommend that there should be a stronger emphasis on monitoring and supporting Foundation Phase teachers. They point out that it is almost impossible to teach learners the basics of reading at Grade 9 level, given their heavy workload, but would welcome teachers to be trained on strategies to assist learners who have reading problems.

5.4.2.4   Provision of specific courses to deal with learners with barriers to learning and behavioural problems

Teachers (92%) comment on the fact that they are ill-equipped to deal with learners who have barriers to learning and behavioural problems. They suggest practical authentic demonstrations in classroom settings.

5.4.2.5   Additional school funding

Throughout the research, school funding has been a major issue. Most teachers (93,4%) strongly feel that the allocation of school funds is simply not sufficient. They remark on the fact that the Department of Education expects effective curriculum implementation, yet has very little regard for teachers who have to implement with very little or no resources at all. They, therefore, suggest a review on school funding allocations.

5.4.2.6   **Guidance to teach in multi-cultural classes**

A large percentage of teachers (76,9%) comment on not being able to make learning meaningful to learners who come from diverse cultural background. This is not surprising, given the fact that Lemmer and Squelch (1993:57-64) point out that, in multi-cultural schools, many learners experience difficulty because they are required to study subjects through a medium of instruction that is not their mother tongue.

They claim that these learners do not have the necessary cognitive academic language skills needed to master the content and terminology. Guidance and support to deal with this type of scenario is desperately pleaded for.

5.5   **Comments and suggestions made by principals and school governing body representatives during interviews**

As outlined in 5.2.2, twenty-five principals and twenty-five school governing body representatives availed themselves for interviews. The interviews yielded the following:

5.5.1   **Comments and suggestions made by principals**

Principals made varied comments and suggestions on curriculum implementation at schools.

5.5.1.1   <u>**To what extent do teachers understand the principles**</u>

                   <u>**underpinning the OBE curriculum?**</u>

The majority of principals (92,2%), that were interviewed, say that teachers understand the principles underpinning the OBE curriculum. Some, however, acknowledge that they themselves need to be updated on a regular basis. They suggest that the Northern Cape Education Department use the monthly principal forum meetings in each district, to engage and interact with curriculum matters.

5.5.1.2   <u>**Are principals sensitive to curriculum transformation with**</u>

                   <u>**regard to planning, co-ordinating and human resources?**</u>

All principals (100%) say that they are sensitive to curriculum transformation, but remark on the fact that the resources, including human resources, are simply not sufficient. They claim that most times, the post provisioning norms impact negatively on effective curriculum implementation. Comments on heavy work loads of teachers were made by virtually most principals.

5.5.1.3   <u>**Are lessons planned according to OBE principles?**</u>

The majority of principles who were interviewed (87,9%) say that lessons are planned according to OBE principles. They remark that heads of departments or learning area heads make sure that this takes place. Some principals are, however, concerned about subject content and point out that Grade 10 learners are not able to manage the GET/FET transition, because they do not have the capacity to deal with large volumes of subject content, nor sit long enough to manage a Grade 10 question paper. This concern was also noted in an article by Kwon Hoo (2004:1) in the Diamond Fields Advertiser, dated 19 August 2004, under the Heading *"Only 30 percent of 2007 matric learners will pass due to illiteracy"*.

Principals suggest that teachers be made aware that meaningful learning will not take place, if learners do not have a sound knowledge base which they can use to solve problems. A sentiment shared by Kramer (1999:136). Principals, therefore, suggest that demonstration lessons become part of the guidance and support provided by learning area managers.

5.5.1.4   Are the needs of all learners catered for in lessons?

Like learning area managers, teachers and learners, as reflected in Table 5.11, principals (87%) also feel that the needs of all learners are not catered for, due to large classes and tight time frames. They recommend that the learner-teacher ratio be reviewed. They also suggest that consideration be given to the appointment of assistant teachers, which will undoubtedly relieve the burden in the classroom. This consideration has also been put on the table by the Minister of Education, Ms Naledi Pandor (2004:6).

5.5.1.5   Does the school have the necessary resources for effective teaching and learning?

Again principals (85,2%) remark that it is not the case. They claim that the school funding norms disadvantage them to a large extent. Some principals (31,2%) assert that poor payment of school funds further exacerbates their situation.

The remaining principals (14,8%) say that they are coping and lauded the Northern Cape Education Department for the efforts in providing them with computer laboratories, mobile libraries and micro-science kits. They do, however, comment on the fact that using the inter-net and the mind-set programme, places additional pressure on their already tight budgets.

Some principals recommend the sharing of resources amongst schools. This particular idea is already in progress in the four Dinaledi schools in the Northern Cape. It must be mentioned though, that they do not have full-time centre managers who manage this initiative, therefore resources are not shared with other schools as optimally as was originally intended.

5.5.1.6 <u>Are reading and writing skills developed sufficiently at school?</u>

Principals (78,2%) are of the opinion that they are not satisfied with the reading and writing skills of learners at school. They do, however, claim that teachers do the best they can under trying circumstances. On engagement why this is so, many of the principals blame the situation on primary schools. They say that the basics in reading and writing are not taught and point out that the initial version of C2005 did not articulate the development of reading and writing. They recommend intensive monitoring, guidance and demonstration lessons for teachers.

It is gladdening to note that some principals (21,2%) say that reading and writing are sufficiently developed. They contend that they prioritized reading and writing on their school development plans, and, therefore have distinct programs in place, which undoubtedly promote reading and writing. They also say that their Institutional Learner Support Teams (ILST) outlined in the Department of Education, White Paper 6 (2001(b):47), are fully operative. These (ILST) assist teachers to diagnose and remedy problems. One principal remarked on the *"Scope Project"* and the *"Learning for Living Project"* which focused on solving reading problems in mainstream classes. He, however, laments the fact that the project has ended and teachers need much more support. He, therefore, suggests more frequent assistance from Education Support Services.

5.5.1.7   **Are teachers able to complete their planned work scheduled for the school year?**

Principals (68%) acknowledge that teachers are unable to complete their planned work scheduled for the year. They say that with the emphasis on learner paced learning, teachers find difficulty in completing the work scheduled for the year.

A further (12,6%) of principals claim that work schedules are not completed due to teacher and learner absenteeism and teachers who are completing their own studies. This sentiment is also echoed by learning area managers. The rest believe that work schedules are completed for the school year.

Some of the latter principals suggest that curriculum plans should be prioritized in the school development plan. They believe that if all stakeholders have participated in the development of the process, there will be total buy-in or what one respondent calls, total quality management. Tribus (1990:3), Moore (1993:7) and Schargel (1993:67), Steyn (1996:122) also believe that total quality management has a positive impact on all stakeholders, resulting in meaningful learning.

5.5.1.8   **Does assessment form an integral part of the teaching and learning process?**

Most principals (87,2%) were satisfied that assessment forms an integral part of the teaching and learning process. Principals assert that the *"C2005 Assessment Guidelines for the Senior Phase"* which was issued to schools by the Department of Education in the year 2002, assisted teachers tremendously in their everyday classroom practice. They, like the (24,1%) of learning area managers and teachers (84%), are of the opinion that the advantages of continuous assessment outweighs the disadvantages.

5.5.1.9   **<u>Do you think that regular learning area meetings arranged by district personnel are a necessity?</u>**

Like learning area managers and teachers, referred to in table 5.22, the majority of principals (100%) believe that regular subject meetings are a necessity. Some principals comment on the fact that the meetings should be useful interactive, practical sessions, which will assist teachers in the classroom.

5.5.1.10   **<u>Do you believe that monitoring and support of curriculum implementation is a necessity?</u>**

All principals (100%) believe that this component is an absolute necessity. Some respondents comment on the feed back loop which they say is a basic element needed for professional growth and development. Principals are eagerly awaiting the implementation of the Integrated Quality Management System outlined in the Education Labour Relations Council collective agreement, no. 8 of 2003, dated 27 August 2003. They believe that it will bring about a much more focused and structured way of addressing developmental needs of teachers.

5.5.1.11   **<u>Are teachers provided with the necessary support and guidance from district personnel?</u>**

Principals (72,2%) say that teachers would appreciate more frequent guidance and support visits. They confirm the allegations made by learning area managers and teachers in the discussion in 5.3.2.5(e) and point out that support and guidance is too short and far between.

Principals are of the opinion that learning area managers should mentor and shadow teachers. This would suggest that learning area managers would have to visit schools more frequently and for longer periods.

5.5.1.12 **Which factors do you regard as the major barriers to teaching and learning?**

Like learning area managers and teachers, principals (87,9%) mention the following factors as major barriers to teaching and learning:

- high learner: teacher ratio
- lack of teachers' knowledge on different cultures and customs of learners
- insufficient school funding
- language of learning and teaching usually the second or third language of learners
- insufficient practical guidance and support to teachers by district personnel
- insufficient resources
- poor socio-economic circumstances of learners
- ill-discipline of learners
- high absenteeism rate of learners and teachers
- dearth of skilled teachers in Maths, Sciences and Languages

When principals were engaged in discussion on school funding norms and the fact that the Northern Cape reflected the highest per capita expenditure on non-personnel items per learner, as illustrated by Kgobe (2001:76), in comparison to other provinces, principals explained that even so, they are simply not in a position to effect redress. They are of the opinion that the high learner:teacher ratio and lack of resources will continue to impact negatively on efficiency and productivity.

Principals are, however, mindful of the already tight provincial budgets and suggest that private contributions to education should continue to be sought. They however believe that these private contributions should be channelled into providing schools with the necessary resources, as well as capacitating teachers in Languages, Mathematics and Sciences. They also call for the training of teachers in the development and selection of learning teaching support material. It must be mentioned though, that 300 Mathematics teachers are being capacitated in an Advanced Certificate in Education through distance education by the University of the Western Cape, in the province.

Principals further suggest, that the Northern Cape Education Department strengthen its strategy to attract students to become Mathematics, Science and Language teachers, as it was becoming increasingly difficult to find suitably qualified teachers. They also point out that, although the previous Minister of Education, Kader Asmal, undertook to look into the issues of cultural diversity in schools, teachers are still not able to handle such issues in classrooms. Principals, like Kritzinger (1992:2) assert that the lack of knowledge about cultural values and customs of learners, lead to unnecessary misunderstanding, negative attitudes and conflict.

5.5.2   **Comments and suggestions made by School Governing body member during interviews**

5.5.2.1   **Have the principles underpinning the OBE curriculum been explained to the School Governing Body?**

A large percentage of the representatives (79,2%) say that the principles underpinning the OBE curriculum have been explained to them. Some of them say that because many of them understand these principles, they can assist the school to develop an environment conducive to learning, by fundraising to augment the *"meager funding they receive from the provincial education department"*.

Twenty-one point eight percent (21,8%) of the representatives say that they know very little about OBE. They argue that they are unable to assist parents when questions are raised about teaching and learning and also find it difficult to contribute in meetings when engaged in discussion on the purchasing of resources needed in classrooms.

5.5.2.2 **Does the school have the necessary physical resources to effect quality teaching and learning?**

A large majority of school governing body representatives (79%) like principals, learning area managers and teachers as pointed out in 5.3.2.4(a), 5.5.1.5 and Table 5.16, argue that schools definitely do not have the necessary resources to effect quality learning and teaching. They not only complain about proper resources, but point out that the mobile classroom which they are issued with, is extremely uncomfortable, as it is very hot in the summer and unbearably cold in the winter. The creation of a climate conducive to learning in such conditions is, therefore, a difficult task. Mona (1997:3) and Lazarus (1998:14) also agree that the physical state of a large number of schools in the country is definitely not conducive to meaningful learning.

5.5.2.3 **Does the school have qualified personnel to effect quality teaching and learning?**

School Governing Body representatives (81,2%) contend that schools do not have suitably qualified personnel to effect quality teaching and learning. They say that subjects, such as Mathematics and the Sciences, have been affected for some time, but recently it has been difficult to replace language teachers, especially English and Afrikaans. This observation has also been made by principals in 5.5.1.12.

5.5.2.4 **Does the school make provision for the en-skilling of teachers?**

All school governing body representatives (100%) say that there are just not enough funds to finance courses for teachers. They say that they rely on the Northern Cape Department of Education to provide upgrading and capacitating courses for teachers.

5.5.2.5 **Are parents involved in the homework activities of learners?**

Representatives of school governing bodies (68,9%) are of the opinion that parents are seldom involved in the homework activities of learners. They say that most parents are illiterate, work until very late or are simply not interested. They therefore assert, that if they know more about the curriculum, they would be able to make parents aware of their role in guiding and supporting learners to complete their projects or assignments.

The remaining (31,1%) say that parents are involved in assisting learners, as they have to ferry learners to libraries, as well as purchase additional stationery needed to complete projects or assignments.

5.5.2.6 **Which factors do you regard as the major barriers to teaching and learning?**

School governing body representatives (68%) mention aspects such as:

- large classes
- demotivated teachers
- absenteeism of teachers and learners
- language problems encountered by learners

- inadequate school funding
- poor socio-economic circumstances of communities
- insufficient resources

Thirty percent (30%) of the school governing body members point out that teachers lack knowledge on the different cultures and customs of many a learner, which leads to unnecessary tension. A point also made by principals in 5.5.1.12. Kritzinger (1992:2) warns that such a situation is destructive to potential meaningful learning.

The remaining (2%) of school governing body representatives claim that principals are still too autocratic and need to be made aware of the advantages of participatory management.

5.5.2.7   **What role does the School Governing body play to assist the school in bringing about effective teaching and learning?**

Most of the school governing body representatives (81,3%) say that they are mainly involved in fundraising.

A much smaller percentage (18,7%) say that they are involved in determining the language policy. They recommend the appointment of teachers and adopt codes of conduct for learners.

The fact that very few school governing body representatives are involved in key aspects which affect learning and teaching, suggests that their effectiveness, as set out by the South African Schools Act 84 of 1996, and referred to by Brunton and Associates (2003:B35), is seriously hampered.

5.6 **Interpretation of findings**

The main interpretation of the analysis in the preceding section is outlined below.

5.6.1 **Dissemination of the Curriculum**

Although there is a general agreement that opportunities for critical reflection and understanding of the principles of the OBE curriculum was provided, respondents feel that the time was too limited. The orientation also failed to provide opportunities for the development of learning programs and lesson plans, hence teachers cannot practice translating policy into action. The lack of this important aspect during orientation, impacted negatively on classroom practice.

5.6.2 **The quality of the transactions**

The majority of teachers are not equipped to establish a satisfactory classroom climate by providing co-operative, well-directed and purposeful activities, therefore many learners find lessons boring. The research, therefore, deduces that because in-service, as well as orientation courses are too theoretical, teachers are not capacitated with vital skills needed in the classroom.

Although a large percentage of teachers (64%) illustrated in table 5.7 claim that they provide sufficient time to develop the learner's writing skills, a large percentage of learning area managers (69%), like Taylor and Vinjevold (1999:15) referred to in 4.2.2.4(e), claim that it is not the case. Principals (78,2%) who were interviewed referred to in 5.5.1.6 confirm this finding. This situation undoubtedly impacts negatively on the learner's writing competency as outlined in the discussion under table 5.7.

Teachers provide very few opportunities for learners to develop reading skills, which definitely rings alarm bells as illustrated in the discussion under table 5.8.

Although (64%) of teachers in Table 5.9 claim that their lessons are well structured and allow learners to grasp concepts and skills incrementally, a large percentage of learning area managers (75,9%) say that this is not the case. The findings of the learning area managers are corroborated by the findings of the PEI research, outlined in 4.2.2.4(b). Much attention, therefore, needs to be given to this particular area, as it is evident that the development of higher order thinking skills is seriously being compromised.

Lessons are largely not reflective of knowledge and skills which are relevant to the child's life-world as illustrated in Table 5.10. This situation is clearly not in tandem with the original intention of the OBE curriculum, as set out in the White Paper of Education and Training 1995, referred to in 2.5.1.

Although a large percentage of teachers (84%) reflected in Table 5.11 and principals (87,2%) during interviews, as shown in 5.5.1.8, claim that continuous assessment is an integral part of the teaching and learning process, learning area managers who monitor the process, believe that there is much room for improvement in terms of understanding the use of formative and summative assessment.

5.6.3   *Methodologies currently used*

There is a noticeable shift from the traditional teacher talk to a situation which encourages active learning and self discovery.

A large percentage of learning area managers (62,1%), teachers (68%) and learners (69,8%), referred to in Table 5.13, acknowledge that current classroom practice does not provide for the individual needs of the learner. Comments from a large number of principals outlined in 5.5.1.4 corroborate this claim. Teachers have to be en-skilled in this particular area.

Very few learning area managers (37,9%), teachers (34%) and learners (19,2%), as illustrated in Table 5.14, agree that teachers provide multiple opportunities for learners to succeed.

Although teachers (66%) and learners (80,8%), referred to in Table 5.15, agree that teaching methods, such as group work are used, learning area managers (62,1%) disagree. They, like the findings of the PEI report illustrated in 4.2.2.4(d), believe that in most instances, group work deteriorates into meaningless discussion. The research, therefore, deduces that teachers need much more guidance on this technique.

5.6.4   Provision and use of resources

Even though the National Systemic Evaluation Report, referred to in 4.3.1.1(b), points out that the Northern Cape had the highest indicators for learning teaching and support material, most respondents; learning area managers (65,5%), teachers (70%) and learners (76,7%) illustrated in table 5.16, as well as principles (85,2%) referred to in 5.5.1.5, and school governing body representatives (79,2%) referred to in 5.5.2.2, claim that they have insufficient resources. The situation is cause for concern given the fact that the OBE curriculum is highly resourced-based, as pointed out by Kruss (1998:108).

The teachers inability to select and develop their own learning and teaching support material is another worrying factor. In-service courses should not only equip teachers to select the necessary materials for the context within which they are teaching, but also provide opportunity to equip them with skills and techniques to make their own material, given the shortage of funds.

5.6.5   *<u>Contextual realities of the school and system</u>*

Table 5.19 reflects that learning area managers and teachers believe that school management teams are not sensitive to curriculum transformation in terms of planning, co-ordinating and provisioning of human resources, although principals (100%), during interviews, outlined in 5.5.1.2, believe they are. Given the difference in opinion, it seems as though participatory management must be strengthened.

The fact that learning area managers (72,4%), teachers (94%) and principals (68%) acknowledge that the planned work schedules for the school year is not completed, suggests that attention be given to the planning of realistic work schedules.

Despite not being able to complete work schedules, there is a definite attempt by teachers to engage in the interpretation of the curriculum and planning of learning programmes, albeit it with very little guidance and support of learning area managers.

Learning area managers (100%) and teachers (86%), referred to in Table 5.22, as well as principals (100%) interviewed in 5.5.1.10, believe that regular learning area meetings arranged by district personnel are a necessity. Therefore, these meetings should continue to be arranged with clearly defined outcomes.

Although the Northern Cape Education Department employed additional personnel to monitor, guide and support curriculum implementation, as proposed by the Curriculum Review Committee in 3.4.4.2(c), Table 5.23 and the discussion under 5.5.1.11 reflect that teachers were not guided and supported as originally intended. Serious thought should be given to how these learning area managers operate within districts. The inadequate provisioning of transport still seriously impedes service delivery.

Responses from learning area managers (100%) and teachers (100%), referred to in Table 5.24 indicate that the administration of the OBE curriculum is problematic. Recording and reporting instruments should therefore be reviewed.

The fact that teachers (76%) claim that learners are not equipped with sufficient pre-knowledge when they arrive at the beginning of the year, poses a serious dilemma. This finding suggests that the implementation of the curriculum, within current classroom practice, is not responding to learning outcomes, hence not responding to the challenges set out in 3.1.

Given the fact that there is a perceived lack of resources, as reflected in Table 5.16, and in the discussion outlined in 5.5.1.5 and 5.5.2.2, it is not surprising that learners cannot complete the necessary tasks for their portfolios. The lack of resources remains a cause for concern.

5.6.6 *Other factors which create barriers to effective classroom practice*

The research also deduces that effective classroom practice is generally inhibited by the following:

- *the high learner-teacher ratio*
- *low morale of teachers*
- *ill-discipline of learners*
- *the inability to teach multi-cultural classes*
- *high absenteeism rate of teachers and learners*
- *poor management of schools*
- *the inability to deal with learners who demonstrate barriers to learning*
- *non-involvement of parents in homework activities of learners*
- *insufficient qualified teachers*
- *schools do not make provision for the enskilling of teachers.*

5.7 *Conclusion*

Despite these shortcomings, the Northern Cape Education Department must be commended for the serious consideration they gave to mediating the implementation of the new curriculum as indicated in 5.1. They displayed remarkable initiative in providing schools with learning programme guidelines and equipping learning area managers and teachers with skills to select and evaluate learning and teaching support material. They also appointed dedicated teams of learning area managers to provide on-site support to teachers in each of the four districts, as they, like Potenza and Monyokolo (1999:232), deemed these three elements vital for curriculum development.

The research, however, raises a range of obstacles that are hindering the implementation of change in the province. These challenges range from insufficient funding and resources to the inefficiency and low morale of teachers, hence suggestions and recommendations have to be sought to rid the system of all its inequities, so that the critical and development outcomes of the curriculum can be realized.

The following chapter will provide suggestions and recommendations to solve the difficulties with regard to curriculum implementation.

CHAPTER 6

SUGGESTIONS AND RECOMMENDATIONS FOR CURRICULUM IMPLEMENTATION WHICH COULD ENHANCE CLASSROOM PRACTICE

6.1 Introduction

The problems regarding the implementation of the curriculum and its impact on classroom practice within certain contextual realities is formulated in 1.3 and elucidated in 5.3. Learning area managers, principals, teachers, learners and representatives from school governing bodies expressed their views.

The opinions expressed by the participants and the suggestions offered are worthy of further investigation. Chapter 6 will deal with the suggestions and recommendations based on the results of these views and opinions. The suggestions and recommendations could be included in a revised curriculum implementation strategy, which will add to improving classroom practice.

6.2 Recommendations based on key questions in the questionnaires

As indicated in 5.1, the Northern Cape Education Department has undertaken concerted efforts to facilitate the implementation of C2005, as well as the RNCS which is currently being rolled out. The research, however, still raised serious shortcomings with regard to the dissemination of the curriculum, the quality of transactions in the classrooms, methodologies currently being used, provision and use of resources, as well as the contextual realities in which the curriculum is being unfolded.

6.2.1   The dissemination of the curriculum

Carl (1995:136) refers to Czajkowski and Patterson (1980:160), who assert that a critical factor in successful change and curriculum development, is the level of preparedness for such change on the part of those involved. He also states that this process is also an empowerment process, a view which is also shared by Kgobe in 5.3.2.1, when he refers to the work of Fullan (1986).

Carl (1995:136) goes on to explain and refers to the Roger's research (1962) outlined in Pratt (1980:427), which shows that there are normally certain attitudes towards change. He says that the manner in which information is disseminated often determines how acceptable the curriculum will be.

Given this important phase of the implementation, the research recommends the following during orientation:

6.2.1.1   Provide teachers with an opportunity to critically reflect on and understand the principles underpinning the OBE curriculum

The findings in 5.3.2.1(a) reflect that a large number of learning area managers (65,5%) and teachers (64%) agree that opportunities were provided to critically reflect on and understand the principles underpinning the OBE curriculum. Learning area managers (34,5%) who are responsible for the orientation of curriculum, disagree.

The situation is undoubtedly cause for concern, given the assertion by Carl (1995:137*)*, that *"meaningful renewal is only possible if there is active involvement and dynamic leadership"*.

He refers to the Hall (1997) model, which outlines seven types of adaptation or involvement, which curriculum users may have and suggests that persons leading the dissemination, in this case, the learning area managers, should be aware of and apply them. These levels of involvement or concern are known as *"stages of concern".*

Carl (1995:138) points out that these levels are distinguishable but not divisible. He says that it should be remembered that an individual may simultaneously have a certain degree of adaptation or concern at most levels, but as renewal progresses, it will become more intense at a certain level. The growth and development of individuals, in this case the teachers, may be deduced according to how they move through the levels. The development character of concern and involvement may be divided into three broad dimensions, namely, self, task and impact, with a subdivision of the seven levels under the three dimensions, as referred to in Table 6.1

Table 6.1 <u>**Stages of concern: Typical expressions of concern about innovation**</u>

	STAGES OF CONCERN	EXPRESSION OF CONCERN
IMPACT 6	Refocusing	I have some ideas about something that would work even better.
5	Collaboration	I am concerned about relating what I am doing to what other instructors are doing.
4	Consequence	How is my use affecting learners in the Province.
TASK 3	Management	I seem to be spending all my time getting material ready.
SELF 2	Personal	How will using it affect me?
1	Informational	I would like to know more about it.
0	Awareness	I am not concerned about it (the innovation).

If learning area managers apply these levels of concern, they will indeed be providing opportunities for teachers to critically reflect and understand the principles underpinning the OBE curriculum. Carl (1995:138) further explains, by referring to Hord et.al. (1987:31-32), who states that the curriculum user, in this case, the teacher's adaptation, may develop from no concern, to refocus, even when their own initiative begins to develop. He asserts though, that the tempo and quality of development varies from person to person.

6.2.1.2 <u>Terminology should be explained in a practical and understandable manner</u>

Learning area managers (17,2%) and teachers (28%) argue that terminology was not explained in a practical and understandable manner.

Carl (1995:167-168) emphasizes that the real measure of success during the curriculum implementation, is determined by the quality of the planning, design and dissemination done beforehand. He says that it not only comprises of aspects such as involvement of all implementers, credibility, acceptable learner responses and completeness, but also the accentuation of the following factors which he quotes from Pratt (1980:435-442):

> *"Continuous contact with implementers , to give advice and help to encourage mutual contact between implementers, as well as making contact with parents.*

> *Clear communication to illustrate roles, to explain terminology, illustration of possible means of evaluation and to supply answers to the well-known queries who? what? when? where? how? and why?*

Provision of support services, for example, spelling out time scheduling, support by supplying material, setting one's own example, creating a climate within which trust and security figure and through encouragement of teachers.

Compensation, for example, praise acknowledgement and also intrinsic aspects of compensation".

Although it can be argued that the original design features of C2005 were confusing and complex, the clarification and explanation of terminology, as well as continual support, remains as described above, essential for effective curriculum dissemination. Rogers (1983:5-6) in Carl (1998:143) echo this sentiment. Rogers asserts that dissemination is a two-way process in which the exchange and sharing of information takes place so that all involved eventually come to a clear understanding.

6.2.1.3   Teachers should be provided with opportunities to practically develop a learning programme or lesson plan

From the discussion in 5.3.2.1(c) it is gleaned that teachers were not provided with opportunities to practically develop a learning programme or lesson plan, hence their inability to make meaning of the design features in C2005.

The research, therefore, suggests that with the staggered roll-out of the RNCS, serious consideration should be given to the factors which Carl (1995:168) deems important for successful curriculum implementation. He refers to Jordan (1989:386-391), who contends that:

- a positive climate should be created
- teachers should be actively involved
- constant support should be offered
- problems must be addressed continuously
- practice-oriented in-service training must be given

Carl (1995:168), however, acknowledges that to get teachers to actively participate, offers an enormous challenge in itself. He stresses the need for practice-orientated in-service training and highlights the importance of building a strong relationship between initiator and implementer. This, he believes, brings about a sense of confidence.

The research deems the dissemination of the curriculum a crucial phase in curriculum implementation and, therefore, suggests that serious consideration be given to the recommendations, in view of the staggered roll-out of the RNCS and the National Curriculum Statements (NCS) for FET.

6.2.2 The current learning teaching situation with regard to the quality of transactions between teacher and learner

Tomlinson and Allan (2000:36-37) refer to Schlechty's (1997:50-51) characteristics of high-quality curriculum implementation or instruction in Table 6.2 and remind one that many classrooms stand in contrast to the characteristics outlined below. Hence, suggestions and recommendations will be given to overcome the current shortcomings, so that the OBE curriculum implementation will be characteristic of the elements in Table 6.2.

Table 6.2   **<u>Characteristics of high-quality curriculum implementation</u>**

High-Quality Curriculum Implementation

- Is clearly focused on the essential understandings and skills of the discipline that a professional would value.
- Is mentally and affectively engaging to learners.
- Is joyful – or at least satisfying.
- Provides choices.
- Is clear in expectations.
- Allows meaningful collaboration.
- Is focused on products (something learners make or do) that matter to learners.
- Connects with learner's lives and world.
- Is fresh and surprising.
- Seems real (*is* real) to the learner.
- Is coherent (organized, unified, sensible) to the learner.
- Is rich, deals with profound ideas.
- Stretches the learner.
- Calls on learner to use what they learn in interesting and important ways.
- Involves the learner in setting goals for their learning and assessing progress toward those goals.

6.2.2.1 <u>**Teachers should be equipped to establish a satisfactory OBE classroom climate by providing co-operative, well directed and purposeful activities**</u>

Given the quality of teacher training referred to in Chapter 1 and the errors made with the initial implementation of C2005, it is not surprising that a large majority of learning area managers (62,1%) and teachers (76%), (Vide: Table 5.4), indicate that teachers are not equipped to establish a satisfactory OBE classroom climate.

In order to respond to the critical and developmental outcomes set out in 3.2.1.1, it is vital for teachers to be equipped with strategies to implement co-operative learning. Anderson (1989:178) points out the advantages of co-operative learning, but cautions that the implementation of co-operative learning involves a structured, but complex process. She encourages teachers to start small by taking one class and using co-operative procedures until the process feels comfortable to them. When structuring co-operative lessons, the following five sets of activities are recommended:

- Specify the outcome
- make a number of decisions about placing learners in groups before the lesson is taught
- explain the tasks and the positive interdependence which implies that one cannot succeed unless other members of the group succeeds.

- monitor the effectiveness of
co-operative learning groups
and intervene to provide
assistance and increase the
learner's interpersonal and
group skills
- evaluate the learner's achievement
and help learners to discuss
how well they collaborated with each other

Thirion and Fourie (1993:203) quote Van Staden (1991), who suggests a similar approach as the above. They say the learning situation should be structured in the following way:

- group members should have a
common goal (objective interdependence)
- tasks should be spread amongst
group members (task interdependence)
- material, resources and information
should be shared amongst group
members (resource interdependence)
- different roles should be assigned
to different learners (role interdependence)
- common rewards should be given
(reward interdependence)

Like Anderson (1989:178), Thirion and Fourie (1993:2003) assert that:

> *"leerling meer aktief in die onderrigleer-*
> *situasie sal wees en so groter insig en*
> *leerstof sal kry, dat hulle bewus word*
> *van die positiewe gevolge van same-*
> *werking, en dat hul behoeftes beter*
> *bevredig sal word omdat hulle 'n groter*
> *besluitnemingsrol ten opsigte van hulle*
> *eie onderrigleersituasie kan speel.*
> *Die ontwikkeling van demokratiese*
> *waardes en sosiale vaardighede is 'n*
> *verdere belangrike voordeel van hierdie*
> *onderrigleerstrategie, veral in die lig van*
> *die ingrypende politieke en sosiaal-*
> *maatskaplike veranderinge, tans in*
> *Suid-Afrika plaasvind".*

Cawood and Gibbon (1985:2005), Thirion and Fourie (1993:2004) and Kramer (1999:104) cite different co-operative teaching strategies, such as group projects, team-games, jigsaw learning together, buzz groups research articles, debates, investigations, surveys, interviews and debates.

The research recommends that the above-mentioned strategies should be emphasized in the training modules developed for teachers, be it pre-service training, in-service training or during on-site visits to classrooms.

6.2.2.2   Lessons should be well prepared and interesting

The fact that Table 5.6 reflects that learners (52,3%) say their lessons are boring, implies that the teachers are ill-prepared to implement the curriculum as intended.

In order to facilitate the change needed in OBE classrooms, Kramer (1999:97) believes that teachers need to go well beyond the traditional mode of chalk-and-talk in ways that share the workload of teaching and learning with learners. He says that there is a need to move away from relationships where educators are active *"providers"* and learners passive *"consumers"* of education, towards a relationship where teachers are guides and managers of a process where learners are engaged in achieving skills, knowledge and values of their own future. Such a situation will occur if strategies such as those outlined in 6.2.2.1 are implemented. Schlechty (1997:51) reminds one that, after all:

> *"teaching involves attracting*
> *learners to learning – making*
> *learning irresistible, even when*
> *the task at hand is not inherently*
> *interesting to the learners".*

6.2.2.3   Teachers should provide sufficient time to develop the learner's writing skills

Table 5.7 reflects that while (64%) of teachers say that they provide sufficient time to develop the learner's writing skills, learning area managers (69%) disagree.

The responses from learning area managers (69%) and the PEI research study referred to in 4.2.2.4(e), claim that there is very little evidence of learners writing extended pieces, which implies that higher order thinking skills are not stimulated. Responses also comment on the fact that books are not marked, therefore the research recommends specific in-service training on questioning techniques, as well as a specific programme which focuses on the purpose of feedback after marking and the application of corrective work.

Kramer (1999:18) recommends a range of corrective techniques which will undoubtedly assist in enforcing sufficient opportunity for learners to also develop their writing skills.

The following techniques amongst others are suggested:

- Learning checks – At the end of the lesson, learners write down two or three main ideas that have been dealt with during the lesson. By quick observation, the teacher can identify areas and learners that need more input or help.
- Metacognitive reflection exercises. Learners get to think about the learning in various ways and are provided an opportunity to write down their thoughts:

      e.g.   -   the most important
                      aspects of what
                      they have learned

            -       the most difficult
                      parts of learning

            -       questions that they
                      have or the issues that
                      they found interesting.

- Mind Maps, Concept Maps or Spray Maps. These are graphic data organizers that help to display what learners know. Learners develop maps to point out the elements of what they have learned and the relationship amongst elements.

- Designing tests.

  Learners design a set of test questions and model answers. These tests can be multiple choice or short essays.

Swart (2003:39-43) also suggests useful strategies for the establishment of an environment that promotes writing. She quotes the following tips for teachers from Graves (1985):

- Write for at least 30 minutes everyday. Learners need time to think, discuss, rewrite, confer, read and write.

- Encourage learners to develop areas of expertise. Take the time to help learners discover their own writing *"turf"*.

- Model the writing process. Write with learners in the classroom using the writing board, overhead projector, etc.

- Share writing. Include in writing time and opportunity for the whole class to meet to read their writing to others and exchange comments and questions.

- Read to learners. Share and discuss books, poems and other readings.

- Expand the writing community outside the classroom. Place written articles of learners on pin-boards, etc. Encourage other learners to read.

- Develop the capacity of learners to evaluate their own work. Encourage the learners to develop their own goals and document their progress.

- Slow the pace. *"Teachers need to slow down so kids can hurry up".* When teachers ask questions, they need to be patient, giving time for learners to answer.

The suggestions and recommendations outlined above, as well as similar techniques are essential if teachers are to implement the OBE curriculum which focuses on the application of knowledge, which in turn implies the acquisition of middle order and high order thinking skills.

6.2.2.4   Teachers should provide opportunities to develop the learner's reading skills

An overwhelming majority of learning area managers (93,1%) and teachers (76%), referred to in Table 5.8, say that learners are not provided with opportunities to develop their reading skills.

Although a number of factors have been blamed for the current situation, the policy prescripts of the Department of Education, in White Paper 6, on Special Needs Education: Building an Inclusive Education and Training System (2001(b):18-19), emphasizes the need to improve the knowledge and skills base of teachers, including those in mainstream schools. The Inclusive Education policy document also states that teachers must have the ability to prepare lessons with variations that are responsive to individual needs. In this case, the underdevelopment of reading skills can be regarded as a barrier to learning.

The Department of Education, White Paper 6 (2001(b):19), also emphasises the functions of the District Support Teams and Institutional – Level Support Teams which should support the teaching and learning process by identifying and addressing learner, teacher and institutional needs.

It is, therefore, recommended that Institutional Level Support Teams become mandatory in all schools, so as to capacitate teachers with specific skills to address the underdevelopment of reading.

Minister Pandor's national plan for the development of reading and writing, referred to in 5.3.2.2(d), will most likely also have White Paper 6 on Special Needs Education, at its core.

6.2.2.5   **Lessons should be well structured to allow learners to grasp concepts and skills incrementally**

The PEI research referred to in 4.2.2.4(b) and the Curriculum Review Committee Report outlined in 3.4.3.2(c) affirm the claims made by learning area managers (75,9%), that lessons are not structured to allow learners to grasp concepts and skills incrementally. Teachers (64%) though, are of the opinion that they do so.

Be this as it may, serious consideration has to be given to this specific area, although the RNCS seems to effect progression through the assessment standards. It is important though, to make teachers aware of educational theory underpinning OBE when assisting them to develop lesson plans. Kramer (1999:7-9) refers to Jean Piaget, who developed the ideas of constructivism, David Kolb and his model of experiential learning, as well as the developmental psychologist, Le'ev Vigotsky, who saw teaching as the act of helping learners to move from within their zone of existing knowledge into a zone of potential. He also refers to the American psychologist, David Ausabel, who captured the idea sharply:

> *"The most important single factor influencing learning is what the learner already knows. Ascertain this and teach (him) accordingly".*

Ms Anne Maclean, a learning area manager in the Northern Cape Education Department's provincial office, used Vigotsky's theory, through mind maps in a meeting with Mathematics teachers on the 11 September 2004. She illustrated how to assist a learner to move from within his or her zone of existing knowledge into a zone of potential knowledge. Diagram 6.1 gives an introduction to mind maps and points out the linkage to the critical outcomes, while the Diagram in 6.2 provides an example of organized instruction which results in the learners' collecting data, analyzing data, organizing data and solving the problem.

Vygotsky (1982:12) says this *"will bring into being an entire series of such developmental processes, which were not at all possible without instruction. Thus instruction is a necessary and general factor in the child's process of development – not of the natural but of the historical traits of man"*.

Diagram 6.1   <u>**Mind Maps**</u>

INTRODUCTION:
I became interested in mind maps whilst observing a colleague – a Biology educator – in action in the classroom. Biology lends itself to such creative ways of teaching … experiments, sketches, dramatization, application to real life, …. mind maps!!!
<u>**What about Maths by mind maps???**</u>

FOCUS OF MIND MAPS:
• To summarise the key points of a particular topic
• To map the logical development of thought in a given scenario

MIND MAPS & THE NEW CURRICULUM:
The concept of mind maps in mathematics well supports OBE in enabling learners to:
• Identify and solve problems and make decisions using critical and <u>**creative thinking**</u>
• Collect, analyse , <u>**organize**</u> and critically evaluate information
• Communicate effectively using <u>**visual, symbolic**</u> and/or language skills in various modes
• Reflect on and explore <u>**a variety of strategies to learn more effectively**</u>

SCOPE OF MIND MAPS PRESENTED:
• Trigonometry
• Concurrency
• Absolute values
• Geometry

A PRACTICAL EXPERIENCE – CREATING MIND MAPS:
• Participants form groups and develop a mind map on a given topic.
• Presentation of mind maps.

CONCLUSION:
Mind maps are useful tools …
• in assisting educators and learners to think more creatively about Maths
• in promoting independent thinking of learners
• in assisting educators with time management regarding the completion of the current syllabus
• in eliminating textbooks as the ONLY RESOURCE
• … what else can you add?

Diagram 6.2   <u>Mind Maps – Organised Instruction</u>

In the diagram, O is the centre of a circle. A, E, C, W and N are points on the circle. Diameter BC is drawn to bisect chord AW at J.
AN is a diameter of the circle. A tangent is drawn to the circle at N.
Chord AW is extended to U and meets the tangent at P.
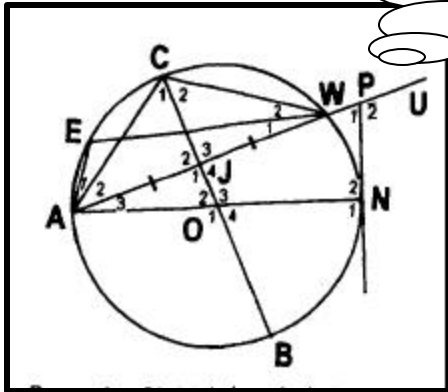
QUESTION 7.2:

7.2.1. Prove that ONPJ is a cyclic quadrilateral.   (5)

7.2.2. Prove that OC bisects $A\hat{C}W$ (3)

7.2.3. Express $\hat{P}_1$ in terms of $A\hat{C}W$, giving reasons.   (6)

7.2.4. Prove that $\hat{P}_2 = \hat{E}$ (5)

MIND MAP → COLLECT DATA → ANALYSE DATA → ORGANISE DATA → SOLVE THE PROBLEM

STEP 2: ANALYSE DATA

- OA = OC = ON (radii)
- $\hat{A}_{2+3} = \hat{C}_4$ (base ∠s; OA = OC)
- $O_2 = 2W_{1+2}$ (∠ at centre = 2 ∠ at circum.)
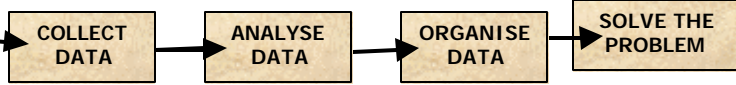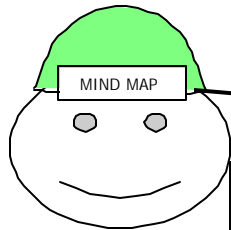
STEP 1: COLLECT DATA

| O is the centre of the circle |
| A, E, C, W and N are points on the circle |
| BC is a diameter and bisects chord AW at J |
| AN is a diameter |
| PN is a tangent to the circle |

- $\hat{E} = \hat{C}_{1+2}$
- $\hat{A}_1 = \hat{W}_2$ (same chord AW)
- (same chord EC)

$BC \perp AW$

(line from centre to midpt. of chord)

$AN \perp PN$

(rad ⊥ tan)

ALWAYS REMEMBER THESE 3 THINGS:
- Sum of angles of ? = 180^0
- Ext. angle of ? = 2 int. opp. angles
- Vert.opp. angles are =

STEP 3: ORGANISE DATA & SOLVE PROBLEM:
Q. 7.2.1   Prove that ONPJ is a cyclic quadrilateral.   (5)

THINK!!!
[3 ways of proving a quad. is cyclic:]
Which one applies here?
- ext angle = opp. int. angle ..... ✓
- opp. angles suppl. ..... ✓
- Equal angles subtended by same line x

$\therefore prove\ \hat{J}_1 = \hat{N}_2\ or\ \hat{J}_4 + \hat{N}_2 = 180^0$

$BC \perp AW$ (line from centre to midpt. of chord)

$\therefore \hat{J}_1 = 90^0$ OR $\therefore \hat{J}_4 = 90^0$

$AN \perp PN$

(rad ⊥ tan)

$\therefore \hat{N}_2 = 90^0$

$\therefore$ ONPJ is a cyclic quadrilateral
(ext angle = opp. int angle) or (opp.angles suppl)

STEP 3: ORGANISE DATA & SOLVE PROBLEM:
Q. 7.2.2   Prove that OC bisects $A\hat{C}W$ (3)

THINK!!! $\hat{C}_1 = \hat{C}_2$
$\hat{C}_1$ Need to prove that
$\hat{C}_2$ belongs to ? CAJ.
$\therefore$ belongs to ? CWJ.
        prove congruency.

In ? CAJ and ? CWJ
        AJ = WJ (given)
        $\hat{J}_2 = \hat{J}_3$ (7.2.1)
        CJ is common
$\therefore$? CAJ   ? CWJ (s, ,s)
$\therefore$ $\hat{C}_1 = \hat{C}_2$ and OC bisects $A\hat{C}W$

STEP 3: ORGANISE DATA & SOLVE PROBLEM:
Q. 7.2.3   Express $\hat{P}_1$ in terms of $A\hat{C}W$, giving reasons.   (6)

THINK !!!
- What do I know from what I have proved already?
- What analysed data has not been used so far?

$\hat{P}_1 = \hat{O}_2$ Ext. angle ∠ cyc. quad. OJPN

$= 2C\hat{W}A$ (∠ at centre = 2 ∠ at circum) $sum\ \angle s = 180^0$

$= 2[180^0 - (90^0 + \hat{C}_2)]$

$= 2[180^0 - (90^0 + \frac{1}{2}A\hat{C}W)]$ (?CJW;

$= 2(90^0 - \frac{1}{2}A\hat{C}W)$ (... 7.2.2)

$= 180^0 - A\hat{C}W$

STEP 3: ORGANISE DATA & SOLVE PROBLEM:
Q. 7.2.4   Prove that $\hat{P}_2 = \hat{E}$ (5)

THINK !!!
- What do I know from what I have already proved ?
- What analysed data has not been used so far?

$\hat{P}_2 = 180^0 - \hat{P}_1 = 180^0 - (180^0 - A\hat{C}W) = A\hat{C}W$

$= \hat{E}$

(same chord AW)

In effect, the learning area manager planned her Geometry lesson similar to the Biology lesson illustrated by Criticos et.al. (1999:2002). She considered learner background knowledge, thought about possible difficulties and described learner activities. In an organized and systemic way the learning area manager:

- taught to a set of learning outcomes, which later made it possible to assess the success of the lesson

- has researched her topic and developed resources for learners to use to achieve the outcomes

- has planned a range of learning activities, e.g. collecting data, analyzing data, organizing data and solving the problem.

- contextualized the lesson to everyday life, and consolidated a practical problem solving activity.

6.2.2.6 **Lessons should be reflective of knowledge and skills which are relevant to the child's life-world**

As outlined in the discussion under Table 5.10, (72%) of learning area managers say that lessons do not reflect knowledge and skills which are relevant to the child's life- world, whereas only (46%) of teachers feel the same as the officials.

As the learning and teaching process has to respond to the critical and developmental outcomes outlined in 3.2.1.1., it is, imperative that teachers develop authentic assessment tasks, which, according to Wiggins (1998:22), *"supply greater incentives for students to persist with day-in and day-out learning and insight into the reasons for specific lessons".*

It is, therefore, suggested that stronger emphasis be placed on the development of lessons and assessment tasks, which are typical of the following standards, recommended by Wiggins (1998:22-23):

- Is realistic. The task or tasks replicate the ways in which a persons' knowledge and abilities are *"tested"* in real-world situations.

- Requires judgement and innovation. The learner has to use knowledge and skills wisely and effectively to solve unstructured problems, such as: when a plan must be designed and when the solution involves more than following a set routine or procedure or plugging in knowledge.

- Asks the students to *"do".* Instead of reciting or replicating through demonstration what he or she was taught or what is already known, the learner has to carry out exploration and work within the specific discipline of science or any other subject area.

- Replicates or simulates the contexts in which adults are *"tested"* in the workplace, in civic life and in personal life. Contexts involve specific situations that have particular constraints, purposes and audiences. Learners need to experience what it is like to do tasks in a workplace and other real-life contexts.

- Assess the learner's ability to efficiently and effectively use a repertoire of knowledge and skills to negotiate a complex task.

- Allow appropriate opportunities to rehearse, consult and get feedback on and refine performances and products.

Spady (1994(b):52) affirms the notion of relevancy, by referring to three realizations which he calls the *"common sense"* of OBE. They are:

- The closer a demonstration of learning falls near the *"real"*end of a learner's learning experiences, the more likely the learning is to carry over into other experiences, especially if it includes elements that the learner practiced extensively over a lengthy period of time.

- Graduation is the ultimate *"culminating point"* in a learner's career. If it is really important that learners take something out the door with them, this *"exit point"* is the time to make sure it is there.

- Learners cannot take out of the door what they have not been taught and had the opportunity to use and practice extensively while they were inside".

Wiggins (1988:22-23) standards for activities and Spady's (1994(b):52) *"common sense"* of OBE, indeed seem to be obligatory if learning experiences or lessons are to respond to the critical and developmental outcomes referred to in 3.2.1.1.

6.2.2.7   <u>**Continuous Assessment should be an integral part of the**</u>
    <u>**teaching and learning process**</u>

Although a large percentage of teachers (84%) in Table 5.11 and principals (87,2%), referred to in 5.5.1.8, are of the opinion that assessment is an integral part of the teaching and learning process, there is a feeling of anxiety and unease surrounding the world of continuous assessment amongst teachers (16%) and learning area managers (75,9%) in the research.

It is, therefore, recommended that the following principles of OBE, namely: design down, high expectations and expanded opportunities as referred to in the Department of Education, C2005, Assessment Guidelines (2002(b):3) and Spady (1994(b):15-19), be consolidated in the planning of everyday teaching and learning experiences:

- Design down.

  This means that outcomes to be addressed through teaching and learning are clearly stated before developing the teaching and learning activities that learners will be engaged in. When planning assessment, teachers must start by identifying outcomes to be assessed from those that are to be addressed through teaching and learning. The next step is to choose the appropriate assessment form which will be used when assessing the outcomes.

- Clarity of focus.

  Teachers must ensure that learners
  are clear about the criteria against
  which they are to be assessed and
  therefore, what they are expected
  to demonstrate.

- High expectations.

  This principle implies that teachers
  must guide and assist learners to
  reach their full potential.

- Expanded opportunities.

  Teachers must find multiple ways
  of exposing learners to learning
  opportunities that will help them
  demonstrate their full potential in
  terms of knowledge skills, values
  and attitudes.

Wiggins (1998:1-2) outlines the advantages of the above-mentioned approach which in itself is developmental by nature. He says, where assessment is educative, classrooms and hallways are filled with conversations that are different to those heard in schools that use traditional assessment methods. Learners no longer ask teachers, *"Is this what you want?"* or *"Is this going to be in the test?"* Instead, learning outcomes, or what he refers to as learning goals and standards, are so clearly spelt out that learners understand what it is they are expected to learn. Moreover, these outcomes are spelt out in terms of performance so that learners know how they are expected to demonstrate their learning.

He says that learners are aware of their current personal levels of performance and their conversations reflect it: *"I need to complete two more tasks at score 4, if I am going to make it to level 4 in Mathematics".* Another learner remarks, *"I'm missing only two pieces of problem solving work from my Natural Science portfolio".*

In addition, learners can accurately self-assess their work, irrespective of their performance-ability and they self-assess their work unendingly on specific tasks: *"My essay is strong on voice but weak on organization", "I think our theory about the identity of these mystery chemicals is good, but we need to check out portfolios to see if those earlier investigations on density support our claims"* (Wiggins 1998:2).

From the above, it seems that continuous assessment is indeed deemed to be seamless with teaching and learning. It is what Wiggins (1998;3) describes as, *"visually indistinguishable from what takes place during good instruction"* and therefore, integral to the teaching and learning process. A sentiment also shared by Kramer (1999:40), Spady (1994(b):18-19), as well as Pahad (1999:255-260), who provides the following practical suggestions to improve assessment practice in the classroom:

- a shared and transparent focus on selected outcomes, emphasizing the critical outcomes
- a shared sense of tracking and encouraging learner progress along a life-long continuum
- a commitment to develop self-assessment, peer assessment and reflective skills
- a systematic application of an assessment cycle when ensures regular constructive feedback and the planning of the next learning steps

- a concerted effort to provide access to a range of appropriate assessment types and contexts

- involvement in and commitment to a quality assurance system which ensures that assessment is fair, reliable and valid.

6.2.3   Methodologies currently used

Spady (1994:12) and Kramer (1999:99) assert that OBE exists to ensure that all learners emerge successful on outcomes deemed essential for their future. This intention is also implicit in the critical and developmental outcomes outlined in 3.2.1.1. It does not, however, imply that one uniform approach can be pursued at the same time, in the same way. The same set of outcomes can, however, be pursued through a variety of methods and therefore, OBE teachers are encouraged to explore these methodologies in the light of differences in the learning styles of learners. The following is therefore recommended:

6.2.3.1   Teachers should use a variety of teaching methods

Table 5.13 reflects that there is a noticeable shift from the traditional approach to learning, to an approach of self-discovery and active learning.

The research further recommended that these good practices be shared with those who are still teaching in the traditional way, through continuous guidance and support by learning area managers and the provision of opportunities for reflection as outlined in 6.2.1.1.

6.2.3.2   **<u>Teachers should provide for the individual needs of the learner</u>**

This crucial aspect is severely neglected as learning area managers (62,1%), teachers (68%) and learners (69,8%) in Table 5.13 say that the individual needs of learners are not catered for. Principals (78%), in 5.5.1.4, echo their sentiment. It is also evident in Table 5.7 and Table 5.8, where many respondents feel that reading and writing skills are not developed.

Given the fact that OBE is about meeting the needs of all learners as illustrated by
Kramer (1998:24), Spady (1994(b):9) and mandated by the Department of Education in White Paper 6 on Inclusive Education (2001(b):16) referred to in 6.2.3.2, it is imperative that serious consideration be given to techniques and methods which teachers can employ.

In an effort to overcome the problems encountered with large class teaching, Farrant (1988:142) recommends small group learning in large classes. He contends that small groups can be used with learners of similar abilities or with learners of mixed abilities. In the former instance, the slower learner is able to proceed at his or her own pace without hindering the progress of those who are able to progress much faster. In the latter, the learner whose pace of learning is much faster, will be able to assist the slower learner in the group and free the teacher for other duties.

In addition, Farrant (1988:142) says that in order to implement learning meaningfully, the teacher needs to use methods of teaching that frees him or her from the traditional approach to teaching, that is *"whole class teaching".* He asserts that individualization can take place through a wide range of alternatives, which include free investigation, design-and-make activities, etc.

As early as 1975, Duminy (1975:29) also affirmed the principle of individualization, based on the idea that every child should be assisted to develop according to his own capabilities. Although he acknowledges that there are problems which inhibit the teacher from doing so, he maintains that provision for individual differences must be made within the boundaries of classroom practice.

He suggests a synthesis of whole class and individual education. This implies that the class continues to be taught as a whole, but opportunities should be created for more individually-orientated activities.

Kramer (1999:100-103) also recommends a variety of teaching and learning strategies. He refers to direct instruction which includes team teaching, guided worksheets, etc., as well as indirect instruction, such as oral presentation, group projects, research articles, etc.

He maintains that the indirect instruction methods allow for individual learning styles and a variety of ways to approach learning. He says that it takes advantage of the learners' curiosity, creativity and interest in exploring the world, but cautions that it is time consuming in planning and using. He also warns about it being unpredictable in outcome and are challenging to teachers who are uncomfortable without full control of their classrooms.

Kramer (1999:104), furthermore, makes mention of the independent learning strategy which includes techniques such as reports, interviews, written assignments, research, projects, etc. He says that although the learner relies on his or her own efforts, the teacher stills plays an important role in directing and assisting the learner. The teacher becomes a resource for learning rather than the manager and source of all information and instruction. The benefit of this approach is that it helps to pinpoint areas of weakness that learners may have and which the teacher needs to assist with.

Independent learning is a good way to allow for differences in learning styles and slower pace learners can be allowed more time to complete tasks and faster learners can be allowed to move on to new work without having to set the same time limit for the whole class.

Tomlinson and Allan (2000:68), on the other hand, believe that teachers should get concrete support to assist them with differentiation. They suggest the following:

- Provide opportunities to see differentiation in action.
- Provide multi-text options.
- Offer mini-grants – This allows teachers to secure funding to purchase supplementary material needed for differentiation.

The outlined techniques and strategies are recommended if provision is to be made for the individual needs of the learner. Hence, learning area managers, who guide and support teachers, should explain and demonstrate these techniques in workshops and classroom visits, as Case and Case (1999:119) reminds one quoting the words of John Dewey:

> *"A progressive society counts individual variations*
> *as precious since it funds in them the means of its*
> *own growth. Hence a democratic society must,*
> *in consistency with its ideal, allow for intellectual*
> *freedom and the play of diverse gifts and interests*
> *in its educational measures".*

6.2.3.3 <u>Teachers should provide multiple opportunities for learners to succeed</u>

Learning area managers (62,1%), teachers (66%) and learners (80,8%) in Table 5.14, claim that multiple or expanded opportunities are not provided during classroom practice. They provide reasons, such as large classes, attitudes of learners, absenteeism of learners, limited time due to a crowded year plan and the exist assessment written at Grade 9 level.

The above-mentioned reasons give the impression that the assumption about the principle is, that learners can take as long as they want to learn something or to complete the task.

Spady (1994(b):15) says definitely no, not without consequence. He explains that the multiple opportunity, or expanded opportunity, should not and does not focus in isolation from the clarity of focus and high expectations principles, which clearly define what is expected of learners. It implies that learners must do more than perform tasks on schedule to be *"finished"* or completed. They must perform all criteria of the defined performance to a defined assessment standard. If the assessment standard is not met, the learner is still responsible for meeting it. The conditions that must be met to *"earn"* an expanded or multiple opportunity to perform at a higher level, must be established at the onset of the learning experience.

The ground rules governing this OBE principle should, therefore, be clarified to all concerned so as to eradicate tension and inconsistencies when applied.

6.2.3.4.1 <u>**Teachers should employ teaching methods with social**</u>
<u>**learning goals, which teach democratic principles, e.g. group**</u>
<u>**discussions**</u>

The research reveals that (37,9%) of learning area managers, (66%) of teachers
and learners (80,8%) claim that teachers employ social learning goals (Vide
5.3.2.3). These respondents, in the discussion in 5.3.2.3, point out the
advantages of the approach, hence it is recommended that an attempt be made
to assist and guide those teachers, who the learning area managers (62,1%)
claim, do not employ social learning goals.

Over and above participatory groupwork, Walker (1991:212-213) provides a
striking example of democracy in classroom organization in primary schools
associated with the Freinet movement. She says classes discuss what is to be
done during the coming week on Mondays. They make a large wall chart listing
organizational tasks. Teachers do not dominate meetings but encourage the
class to elect a learner to act as chairperson or to write down class decisions on
a poster.

Tasks, such as cleaning the chalkboard, are allocated in rotation and at the end
of the school day, the class members report to each other on the day's work,
sharing, reading and discussing written texts. During the week learners write
down complaints, conflict with other learners, criticism of the teacher, etc. on a
wall chart. This wall chart is then discussed at the final meeting of the week and
solutions are sought for the problems which have arisen.

For Walker (1991:213) these children learn about control and responsibility by
creating their own means for exercising them. Skills of this kind cannot be
developed by simply telling children how to run their lives. Castles and
Wustenberg (1979:53) cite Krupskaya (1985), who asserts that such knowledge,

skills and attitudes, where learner participation is more than *"just a game with democratic principles"*, seem essential for full participation in a democracy.

Galton and Williamson (1992:15), Joyce et.al (1999:15) and Kramer (1999:107) agree that this participatory approach brings about co-operation amongst learners to pursue academic inquiry and to develop self-reliance, pride and persistence to persevere.

Given these advantages, Kramer (1999:108) provides a wide variety of techniques outlined in Table 6.3 which can be utilized when support and guidance is provided.

Table 6.3   Participatory teaching strategies

Strategy	*Method*
Group assignments	Learners complete projects in groups, with different tasks given to each member. Each person contributes towards the final product, for example: producing a class magazine.
Simulations & role playing	Each group member assumes the role of a character and plays that role in addressing an issue, for example: deciding on an anti-smoking law. (Roles: doctor, smoker, tobacco merchant, politician, cigarette factory worker, etc…)
Brainstorming	Learners generate different ideas to solve problems or for discussion on a topic.
Jigsaws	Each learner belongs to a *"home"* team and an *"expert"* team. The *"home"* teams are briefed on a topic and decide on important questions. Learners then join their *"expert"* team. Each "e*xpert"* team discusses a sub-topic in depth and the members take notes. The sub-topic is an issue, idea, question or theme related to the main topic. Each learner then returns to his or her *"home"* team. Each member then shares with the whole group what s/he has discussed in his or her *"expert"* team. The *"home"* group then completes work on the main topic.
Peer teaching	Members of *"expert"* groups learn and become competent in a new skill or knowledge. They then return and teach this to their *"home"* group members.
Team presentations	Group members prepare individual contributions to a joint presentation on a topic. Members work independently in class or at home, before convening to work together.
Fishbowls	One group sits in a circle facing one another to discuss one issue related to a topic. The rest of the class sits in an outer circle, taking notes and watching. different groups discuss different issues in turn. Members then return to a *"home"* group to write up their reports.
Round table (Written) or Round Robin (oral)	Groups use a single pen and piece of paper to answer a question. Each member writes down one line before passing the paper and pen to the next member, who writes the next line and passes it on. Learners may pass without writing.

Buddy system	Learners are assigned a partner to discuss issues with. Partners discuss questions or check each other's work or share ideas. The buddies need not work on the same questions.
Peer assessment	Learners are divided into groups or pairs to assess each other's work prior to handing in to the educator.
Train questions	Groups sit in lines, one member behind the other. The educator or other groups pose questions. The first member answers or passes it on to the next person. If the question reaches the end of the line without being answered, the team loses a point.
Telstar techniques	Each group elects a spokesperson to address the issue. All spokespersons sit in an inner circle to debate. The members of the groups may pas notes, suggestions or ideas on to the spokesperson from outside of the circle.

6.2.4 Provision and use of resources

The Department of Education's, National Systemic Evaluation Report (2003(b):43) referred to in 4.3.1.1(b) shows that learners in schools with more learning and teaching support material obtained higher scores than those in schools with less material. Gauteng and the Northern Cape are highlighted in 4.3.1(c), as provinces which have the highest indicators for learning and teaching support material 70,2% and 71,2% respectively, yet the greater majority of respondents who formed part of this research disagree.

6.2.4.1 Teachers should have the available resources to present lessons which focus on knowledge skills values and attitudes

Table 5.16 reflects that learning area managers (65,5%), teachers (70%) and learners (76,7%) say that they do not have sufficient resources to present quality lessons. Principals (85,2%), referred to in 5.5.1.5, and school governing body representatives (79,2%) referred to in 5.5.2.2, also make this claim.

Although there is general disagreement, learning area managers (65,5%) in Table 5.16 make an interesting point. They claim that, although learning and teaching material is available, it is of very poor quality and not relevant as it is not OBE aligned, therefore rendering sources effectively *"not available"*.

The research, therefore, recommends that teachers be guided and supported in the selection of relevant learning and teaching support material, as well as the use of other resources.

The Northern Cape Education Department has started the training of teachers and learning area managers in this regard, through the Gauteng Institute for Education Development. Ms Kiva, who heads the learning and teaching support material section in the province, indicates that, although budgetary constraints only allows her to train very few teachers annually, she is optimistic that ultimately teachers will all gain an understanding of the value and use of text books, as well as appreciate and care for equipment which has been procured. Taylor and Vinjevold (1999:233) also believe that *"the value of text books should be re-established in the minds of teachers, teacher educators and school managers, for without books to read and write in, schooling as cognitive development cannot happen".*

Potenza and Monyokolo (1999:243) argue that in developing contexts, such as South Africa, textbooks tend to be the most cost effect and accessible vehicle for supporting the curriculum. They quote from Kromberg (1993) who states:

> *"the centrality of the textbook to education is well documented, and is stressed particularly in educationally deprived contexts where learners and teachers have less capacity or confidence to venture beyond the safe boundaries of the printed word".*

Like the authors above, the research suggests that every learner should receive a textbook for each learning area they are studying.

Over and above the physical resources, Hoadley and Jansen (2002:95-96) reminds us of a teacher's less tangible resources, namely, time, a teacher's inventiveness and work ethic, or the way a teacher uses classroom space. They believe these aspects all have a great impact on teaching and learning. The authors furthermore contend that resourcefulness is an important teaching resource as it refers to:

- the abilities teachers have to work within the constraints they find
- their abilities to innovate and to make the best of the resources they have
- being strongly related to a teacher's knowledge, experience and attitude.

Hoadley and Jansen (2002:96) assert that when these are limited, teachers tend to be less resourceful and often blame the lack of resources for their not implementing the new curriculum as intended.

6.2.4.2   Teachers should refer learners to books, magazines, newspapers, journals, the internet, etc. in the classroom when completing an assignment

As pointed out in the Department of Education's, National Systemic Evaluation Report (2003(b):43) referred to in 4.3.1.3(c) and again referred to in 6.2.4, there seems to be a close relationship between inputs, e.g. learning and teaching support material and outputs, as learners in better resourced schools seem to perform better. Kgobe (2003:173), however, cautions that the relationship is not straightforward. He refers to Crouch and Vinjevoldt (2001), who reported on literacy and numeracy of Grade 3 learners in 453 schools in poor socio-economic districts. They found significant variations in scores which was not explained by inputs. They say that resources only accounted for 7% of variation in Literacy and 10% in Numeracy.

Table 5.17 reflects that learners (77,9%) are of the opinion that books magazines, newspapers, journals, the internet, etc. are definitely not available in classrooms when completing assignments.

Given the resourced-based nature of OBE, it is imperative that increased funds are provided to supply schools with the necessary resources. The Department of Education has, however, committed to review school funding norms in an effort to assist schools who are serving poorer communities, according to the Department of Education's Review of the Financing, Resourcing and cost of Education in Public schools (2003(d):66).

With regard to computers, the Northern Cape Education Department has expanded access to computers in schools significantly, through private-public partnerships. One of the projects funded by such a partnership is the Telkom Super Centres project which is estimated to have cost R4,660,000. According to an official responsible for the project, the Northern Cape Education Department hopes to raise the level of IT skills amongst teachers from the current 10 teachers to a target of 106, which implies at least one teacher per school.

Teachers and principals raised concerns regarding the day-to-day running costs, e.g. phone call charges, material costs, security, etc. They acknowledge that computer laboratories are locked, but point out that the up-keep is virtually impossible.

It is hoped that the review of the school funding norms will benefit those in need, so that an environment conducive for learning and teaching will be developed.

6.2.4.3 **Teachers should be equipped with the necessary skills to select and develop the necessary learning and teaching support material needed in the classroom**

Although learning area managers (65,5%) and teachers (64%) in Table 5.18 say they are not equipped with the necessary skills to select and develop the necessary learning and teaching support material, the Northern Cape Education Department has embarked on an initiative to do so, albeit it with only a few learning area managers and teachers as pointed out in 6.2.4.1. They do, however, say that ultimately all teachers will be en-skilled to do so.

The research concludes that, just as well trained teachers are important for successful curriculum implementation, so is the provisioning of resources, as well as the en-skilling of teachers to select and develop their own. Mbiti (1974:113), Schulze (1994:166), who quotes Hunger et.al. (1988) and Taylor and Vinjevold (1999:233), also echo this sentiment.

6.2.5 **Contextual realities of the school and system**

Although the Department of Education's, Systemic Evaluation Report outlined in 4.3 reveals that much has been done to improve the contextual realities of the schools and system, the research raises a number of other factors which need to be attended to, to enhance effective curriculum implementation.

6.2.5.1 **School management teams should be sensitive to curriculum transformation in terms of planning, co-ordinating and provision of human resources**

A large percentage of learning area managers (58,6%) and teachers (68%) as referred to in Table 5.19, claim that school management teams are insensitive to curriculum transformation in terms of planning, co-ordinating and human resources. Principals (100%) referred to in 5.5.1.2, say they do.

Nevertheless, Van Schalkwyk (1994:14) makes the point that schools cannot perform their functional tasks, which is teaching and learning effectively, if they are poorly managed. He says that it has a negative impact on the overall education of the community, hence the Total Quality Management notion, advocated by Murgatroyd and Morgan (1993:60), Steyn (1996:122), Phillips (1997:58), and Kramer (1999:170) is recommended. Total Quality Management explicitly states that all aspects of an organization have to be dedicated to goals of achieving the highest standards of performance. In effect, it is total because it affects all who work in the school, as well as all activities undertaken in the name of the school.

According to Tribus (1990:3), Moore (1993:7), Rappaport (1993:17) and Schargel (1993:67), schools which have adopted Total Quality Management, showed tremendous improvement in areas such as:

- morale and motivation has improved
- conflict between staff members has decreased
- learners have become more involved in extra-mural activities
- learning programmes have been developed to motivate learners intrinsically
- teachers have become enablers
- learners have become "co-managers" of their education

Kramer (1999:170-171), referred to in the discussion under Table 5.19, confirms that managing the five Total Quality Management factors, namely, customer focus, total involvement, measurement, commitment and continuous improvement, almost guarantees an improvement in quality in a school.

Senge (1999:34-37) recommends a similar approach. He calls it thinking systemically, as he believes the approach makes it possible to change the authoritarian, controlling organizations of the past into democratic learning organizations necessary for the future. He says thinking systemically implies:

- Building a shared vision, as this fosters commitment to the long term.
- Meta models, as they focus on the openness needed to unearth short-comings in our present way of seeing the world.
- Team learning develops the skills of groups of people to look for the larger picture that lies beyond the individual perspectives.
- Personal mastery, as it fosters personal motivation to continue to learn how our actions affect our world.

Given the above, one cannot but agree with Senge (1999:38) that, *"a learning organization is a place where people are continuing discovering how they create their reality. And how they can change it…….."*, hence participatory school management is a necessity.

Over and above the recommendation, democratic consultation in a democracy is obligatory as pointed out by Mncwabe (1990:177), therefore in-service courses for school management teams should be reflective of democratic procedures.

6.2.5.2 **<u>Teachers should be able to complete work scheduled for the year</u>**

Table 5.20 reflects that the majority of learning area managers (72,4%), teachers (94%) and principals (68%) who were interviewed in 5.5.1.7, say that teachers are not able to complete the work scheduled for the year.

An array of causes are mentioned but most respondents focused on large classes and multiple opportunities, therefore the following recommendations are made:

- Large classes

The recommendations, referred to in 6.2.3.2, could be considered. In addition, Buchel (1995:102-103) suggests the following managerial skills which will facilitate the effective completion of the work scheduled for the year:

- The establishment of a healthy learner-teacher relationship. Know learners, their interests, study habits and learning tempo to get the best results.

- Goals should be flexible.
  The teacher should make adjustment in the learning teaching situation without thwarting the actual goal. Various methods can be used to achieve the same goal.

- Realistic Expectations.
  Learners should not be made too dependent on the teacher for instruction. Learners should be self-reliant and accept responsibility for their own learning.

- Responsibility.

  Learners should be made to feel responsible
  and should make use of their learning
  opportunities.

- Maintaining a leadership role.

  The teacher should provide individual attention
  to learners and keep class under control when
  dealing with small groups. Learners should all
  feel involved.

- Variation of tempo.

  Tempo should be varied in order to use teaching
  time effectively.

- Managerial skills.

  The teacher should be able to employ managerial
  skills, such as administrative duties, creation of
  learning opportunities, solving problems.

- Multiple opportunities

Given the fact that it seems as if respondents in Table 5.20, as well as principals
in 5.5.1.7, have a misconception surrounding the application of the multiple
opportunity principle, the discussion outlined in 6.2.3.3 corrects the
misconception.

The above-mentioned discussion shows that difficulties with regard to large class
teaching can be overcome if the suggested strategies are utilized, but moreover if
the multiple opportunity principle is applied together with those outlined in 6.2.2.7,
the full potential of OBE will be unleashed.

6.2.5.3 **<u>Teachers should be involved in the interpretation of the</u>**
<u>curriculum and planning of learning programmes</u>

The fact that learning area managers (100%) and teachers (100%) in Table 5.21,
claim that interpretation of the curriculum and planning of the curriculum indeed
takes place, gives the impression that respondents undoubtedly deem this aspect
a vital element in curriculum implementation. The research, therefore, suggests
that planning and interpretation of the curricula should continue to be
strengthened, as the three levels of planning, namely: school level planning,
grade level planning and classroom level planning, each have its own
advantages in contributing to effective curriculum implementation as pointed out
by Kramer (1999:153-154).

Although both sets of respondents in Table 5.21 claim that teachers are involved
in the development of learning programs, Table 5.3 reflects that no opportunities
were provided for the practical development of learning programs during
orientation, the research therefore, suggests a strengthening of this area in
particular. Spady (1994(b):52) and Kramer (1999:154) suggest a planning
process outlined in 6.2.2.7. Kramer (1999:156) also suggests the following
useful flowchart:

Table 6.4   <u>**Flowchart for learning programme development**</u>

Refer to the policy documents	Refer to the Grade Plan	Refer to the other resources (texts, colleagues, etc.)

Decide what evidence learners will present for assessment by the end of the programme

Plan what learners should learn to be positively assessed:
- Knowledge they should acquire
- Explore skills to develop and practise
- Attitudes & values to explore

Design a Teaching, Learning & Assessment plan that will achieve this learning by the end of the available time period. Divide the plan into lessons or learning experiences that fit onto the total number of periods

Plan each separate lesson or learning experience.
- Activities & options
- Resources
- Time
- Assessment

6.2.5.4   <u>**Regular learning area meetings arranged by district personnel are a necessity**</u>

Learning area managers (100%), teachers (86%) and principals (100%) believe that regular meetings arranged by district personnel are a necessity.

The respondents refer to the advantages of these meeting, but principals in particular point out that these meetings could be extremely useful if they are interactive and practical in nature. As indicated under the discussion under Table 5.22, Dillon-Peterson (1981:3), Joyce (1981:117), and Bradley (1987:192) also recommend these meetings.

Tomlinson and Allan (2000;69), referred to in 6.2.3.2, recommend seeing policy in action. They argue that most likely teachers have no images of a particular technique or approach they have to implement. In this instance, they refer to differentiated classrooms and how it should look like.

They believe that teachers who are charged with developing such classrooms need to see how to differentiate in terms of the learner's abilities and how to select the relevant content. They refer to districts who have hired a professional videographer to make brief but high quality video tapes of a teacher's classroom where differentiation is taking place. They argue that the tapes are not only useful when they are narrated effectively, but they also provide missing images of differentiation, therefore allowing good practice to be shared.

Given the advantages of these practical, interactive meetings, the research recommends them being continued.

6.2.5.5   <u>Learning area managers should monitor and support curriculum implementation regularly</u>

The provision of monitoring guidance and support to teachers has been widely agreed upon as pointed out in 3.4.4.2(c) and 5.7, as a fundamental aspect in bringing about effective implementation of the curriculum.

Learning area managers (86,2%) and teachers (96%) in Table 5.23 and principals (72,2%), referred to in 5.5.1.11 are of the opinion that monitoring and support does not take place regularly and list various reasons for it not happening.

The research suggests that districts revise their modus operandi, so as to bring about more flexibility in their travelling arrangements. Teachers who are in need of more support, should be assisted for longer periods of time, through coaching and mentoring.

The research recommends that the model referred to by Carl (1995:138) in 6.2.1.1 should seriously be considered. In addition, it is also suggested that the factors which Carl (1995:167-168) quotes from Pratt (1980:435-422) referred to in 6.2.1.2, should form an integral part of the monitoring and support programme.

6.2.5.6 **Teachers should be able to manage the administrative and organizational tasks with ease, e.g. recording and reporting**

Table 5.24 reflects that learning area managers (100%) and teachers (100%) emphatically acknowledge that teachers are unable to manage the administrative and organizational tasks with ease.

The fact that teachers blame their inability on large classes and learners who do not meet dead-lines, is more proof of their lack of basic classroom management. Suggestions and recommendations on how to overcome problems encountered with large class teaching is outlined in 6.2.3.2 and the provision of multiple opportunities in 6.2.3.3.

With regard to recording and reporting, it is not surprising that respondents say that teachers are unable to manage organizational tasks with ease, as Wiggins (1998;241) reminds us that new and more complex forms of assessment clearly demand new forms of recording and reporting. He says *"rich information based on new kinds of tasks and content standards and on performance standards that are broken down by categories and criteria, cry out for a more sophisticated system of communication with parents and other clients…"*.

The main recording instrument used in OBE is the rubric, which describes the hierachy or continuum of the four levels of performance that ranges from not achieved to outstanding, as pointed out in the Department of Education C2005 Senior Phase Assessment Guideline (2002(b):27).

The research suggests that teachers not only be assisted to design the different kinds of rubrics, but that the strategies to address large class teaching and the multiple opportunities notion be put into practice during on-site visits or demonstrations during meetings arranged by learning area managers as referred to in 6.2.5.4.

6.2.5.7   <u>**Learners should be equipped with sufficient pre-knowledge when they arrive at the beginning of the year**</u>

Seventy-six percent (76%) of teachers claim that learners are not equipped with sufficient pre-knowledge when they arrive at the beginning of the year.

The situation suggests that teachers have forgotten the fact that, what learners learn in the classroom depends on their existing schemata, even if this schemata is as Criticos et.al. (2002:126-127) puts it, *"incomplete hazy or even wrong"*.

The research, therefore, recommends that the competency levels of teachers be raised by bringing theory and practice closer together.

When teachers are trained to implement OBE, it should be done through practical experiences so that teachers become acutely aware that learning involves the extension, elaboration or modification of schemata, making sufficient pre-knowledge an absolute necessity for future learning.

Teachers should be reminded that one of the most important shifts brought about by OBE is that teachers are now expected to develop the learner's understanding of concepts rather than simply adding more content. Criticos et.al (2002:148-149) assert that, as learners advance through school, they should demonstrate:

- an ability to do things (advanced skills)
- a higher level understanding of content knowledge (rather than knowing more content at the same low level)
- a more thoughtful and reflective attitude (in other words, an ability to make and defend value decisions)

The recommendation outlined in 6.2.1.3 is once more emphasized.

6.2.5.8   Learners should complete all the necessary tasks for their portfolios

Learning area managers (79,3%), teachers (88%) and learners (81,4%) claim that the necessary tasks for portfolios are not completed, as pointed out in 6.2.5.8.

As portfolios are mandatory according to the Department of Education Assessment Policy referred to in 4.3.1.1(d), the research suggests that teachers be made to understand the simplicity of portfolios. Criticos et.al. (2002:108) point out that it provides teachers with the opportunity to examine, all at once and in one place, the tasks that the learners completed over time. In addition, it allows learners to see how they developed over time by comparing previous tasks with tasks which they completed towards the end of the year. Portfolios are not an *"add on"* as viewed by many. It is what Criticos et.al. (2002:108) refer to as *"the organized sum of all the assessment a learner does over a period of time"*.

Although respondents in Table 5.26 blame physical resources mainly for incompletion of portfolios, the research suggests teachers be capacitated in the use of less tangible resources, namely, time management and the general resourcefulness of teachers to operate optimally within the constraints they find themselves in, as referred to in 6.2.4.1.

Criticos et.al. (2002:109) provide the following suggestions in terms of the evidence teachers want learners to present in their portfolios:

- Provide learners with a clear written instruction of what should be included in the portfolio.
- Provide a clear and detailed outline of the assessment criteria (C2005), assessment standard (RNCS) and how they are weighted.
- A set of interim dates by which parts of the portfolio must be completed.
- A meeting should be held with learners before and during the development of the process.

- At the beginning of the process, the teacher needs to clarify what should be done and learners need to ask about things that are unclear. This should be followed by giving learners a detailed and written portfolio task instruction, not simply a spoken instruction.

- During the process, the teachers should meet with learners to see how work is progressing and to ask questions about certain submitted pieces. For example, a learner may have submitted an entry in a journal which the teacher does not understand. The teachers should make written comments in each learner's portfolio throughout the period of its development. (Learners should be encouraged to take their portfolios home to be scrutinized by parents. Parents are hence involved and can contribute in the education of the learners).

- At the end of the process, it is useful to remind learners of parts of a portfolio that are missing.

> Although this is a
> consequence of not doing work,
> it would be unfair to fail a learner
> because of a misunderstanding
> about what had to be presented.

The suggestions clearly illustrate that, even though there are various factors which hinder effective development of portfolios, the process needs thorough planning, managing and assessing.

6.2.6 Other factors which create barriers to effective classroom practice and recommendations and suggestions on how to manage them

6.2.6.1 The high learner-teacher ratio

Recommendations and suggestions regarding large class teaching is outlined in 6.2.3.2. Reference is specifically made to Farrant (1988:142) and Kramer (1999:100-103).

6.2.6.2 Low morale of teachers

Despite the introduction of teaching awards in 2000, by Minister Kader Asmal, in an attempt to boost teachers' morale and recognize their efforts, their low morale has been highlighted with the country wide strike action on the 17 September 2004.

Salaries and conditions of service seem to be their main cause of frustration as outlined by the staff reporter, Vusi Tukakhomo, in the Diamond Fields Advertiser, dated 15 September (2004(b):4). Discussions with principals and teachers reveal that large classes and ill-discipline are also contributory factors.

In-service courses could solve the latter, but Jarvis (1986:9-13) is of the opinion that excellent remuneration packages for teachers, will increase their commitment to the success of meaningful learning. He believes that teacher-salaries play a vital role in the promotion of quality meaningful classroom practice.

The research, however, suggests that the Integrated Quality Management System referred to in 5.5.1.9, which replaces the Development Appraisal System referred to in the Employment of Educators' Act 76 of 1998, as illustrated by Brunton and Associates (2003:c86), be implemented as soon as possible, as it not only allows teachers to take responsibility to improve their remuneration themselves but also to be in control of receiving flexible on-going education and training of high quality, which will ultimately ensure growth and development. Thapelo (1999:5) affirms that a proper remuneration system coupled to personal achievement and innovation, should make it possible for teachers to remain in the classroom while their remuneration provides for their needs.

6.2.6.3   Ill-discipline of learners

Criticos et.al. (2002:299-300) remind one that research generally identifies the common reasons for learner misbehaviour which are amongst others, learner boredom, learner fatigue, learner confusion, lack of learning culture and learner emotional difficulties. These are all current realities of the classroom.

It should be remembered though, that teachers most often react to misbehavior as if it is a personal attack, yet the motivation of this ill-discipline is related to the learner's own needs, such as feeling neglected, etc. The following approach suggested by Criticos et.al. (2002:301) should therefore be kept in mind. It is recommended that teachers use rules and contracts, to create a secure and predictable environment.

It may sound over-disciplinarian but it is argued that it is of utmost importance in creating a democratic classroom. Successful democratic classrooms operate like democratic societies and rules are:

- negotiated and agreed on by all
- are transparent and clear
- rest on, and build teacher authority

  that emerges for learner respect
  for the teacher's expertise. The
  learners must *"give"* the teacher
  authority in the same way that voters
  give governments authority.

Criticos et.al. (2002:303) stresses though, that the key issues in rule-based discipline are that rules should be relevant and meaningful.

6.2.6.4   Teaching multi-cultural classrooms

Learning area managers, teachers and principals list the inability to teach multi-cultural classrooms as a factor which inhibits effective curriculum implementation.

Woodbridge (1994:67) sees multi-cultural education as an on-going process, since it involves the gradual dismantling of school policies and practices that disadvantaged learners. Kritzinger (1999:2) agrees with learning area managers, teachers and principals in 5.5.3 and 5.5.1.12, that the lack of knowledge about the cultural values and customs of learners can lead to unnecessary misunderstandings, negative attitudes and conflict, which undoubtedly leads to a condition which is destructive to potential meaningful learning.

In addition, discussions with teachers and principals reveal that language poses another dilemma. Many learners are required to study subjects through a medium of instruction that is not their mother tongue, as pointed out by Lemmer and Squelch (1993:57-64) referred to in 5.4.2.6.

To overcome problems regarding multi-cultural classes, Coutts (1992:86) suggests three approaches, namely:

- the teacher-centred approach
- socialized approaches
- the learner-centred approach

He explains, the best way to use the teacher-centred approach is to develop effective techniques of questioning, as he believes learners are store-houses of opinions, attitudes, insights and experiences, which can be tapped to the benefit of all.

The socialized approach implies that learners will experience learning while working in pairs or larger collaborating groups. This approach is also outlined in 5.3.2.3 and 6.2.3.4.

The strategy includes the following:

- interactive pairs, where learners assist each other with mutual instruction
- peer group tutoring, where a capable learner instructs the others throughout the activity
- monitoring, where a learner simply keeps control and regulates group activity

- unstructured tutoring, where
  a learner assists others only
  when the need arises.

Coutts (1992:86) further explains that the learner-centred approach is used by teachers who consciously shift emphasis from the act of imparting knowledge to the learner's actions in the process of learning. The learner's active experience of learning, gaining skills, making personal discoveries, creating and enhancing personal growth, is essential. The teacher tends to take on the role of a guide, catalyst and facilitator who poses problems and creates an environment within which learning can take place.

With regard to the Norms and Standards for Language Policy in Public Schools, the preamble in the RSA: Government Gazette No. 18546, (1997:B31) clearly states:

> *"the new language in education policy*
> *is conceived of as an integral and*
> *necessary aspect of the new*
> *government's strategy of building*
> *a non-racial nation in South Africa.*
> *It is meant to facilitate communication*
> *across the barriers of colour, language*
> *and religion, while at the same time*
> *creating an environment in which*
> *respect for languages other than one's*
> *own would be encouraged".*

The duty of the school, therefore, is to promote multi-lingualism through using more than one language of learning and teaching and/or by offering additional languages as fully fledged subjects, through immersion or language maintenance programmes.

In addition, Mohammed (2004:88) says that the Gauteng Institute for Education Development has utilized an infusion strategy to address human rights education within materials which they developed for Grades 4-9. He says they also developed modules of teaching and learning resources to assist in the respective learning areas and refers to human rights topics, which are addressed incrementally across the phases, e.g. a calendar of commemoration days which implies religious holidays and national holidays. Mohammed (2004:88) also refers to a sample of lesson plans in six learning areas, which demonstrate the deep infusion approach to address not only multi-culturalism but also human rights education in the curriculum.

The research suggests that the approaches outlined by Coutts (1992:86), which are undoubtedly aligned to achieving outcomes, be used. In addition, the use of the kind of resources referred to by Mohammed (2004:88) should be considered when preparing in-service courses for teachers.

6.2.6.5 <u>High absenteeism rate of teachers and learners</u>

Respondents in 5.5.1.12 and 5.5.2.6 list the high rate of teachers and learners absenteeism as an inhibiting factor to effective classroom practice. Although the research does not investigate reasons for the high absenteeism rate, it is cause for concern. Dieltens and Motimele (2003:17) refer to Senosi (2002), who contends that the estimated HIV/AIDS prevalence amongst teachers is approximately 30%, which is considerably above the national prevalence. It is argued that more resources might have to be committed to teacher development in the light of the predicted shortage caused by the pandemic.

In addition, Bot (2003:152) refers to the Medical Research Council, which asserts that there are currently 200 000 AIDS orphans, but this could soar to almost 2 million between 2010 and 2014.

In the light of the above, the research stresses the importance of schools to operate within the confines of the national policy on HIV/AIDS, by promoting effective prevention and care, but moreover, to ensure that HIV/AIDS awareness is infused in learning programmes, particularly in Life Skills and Life Orientation.

6.2.6.6 <u>Poor management of schools</u>

Recommendations and suggestions regarding participatory school management, which is imperative in democracy is outlined in 6.2.5.1.

6.2.6.7 <u>The inability of teachers to deal with learners who demonstrate barriers to learning</u>

The Department of Education, White Paper on Special Needs Education: Building an Inclusive Education and Training System (2001(b):18-19), referred to in 6.2.2.4, emphasises that education provision should be based on the levels of support needed to address a range of barriers to learning.

The research recommends that the Department of Education C2005 Assessment Guidelines for Inclusion (2002) be consolidated during in-service training. These Assessment Guidelines (2002(c):9-11) spell out how to use adaptive methods of assessment, as well as the responsibilities of District Support Teams, who have to train, monitor and support the Institutional Level Support Teams, in the process of identifying barriers experienced by learners, as well as how to use the adaptive methods to address barriers.

6.2.6.8 **Poor socio-economic circumstances of learners and non-involvement of parents in homework activities**

The Department of Education's, National Systemic Evaluation Report (2003(b):43) referred to in 4.3.1.1(a), confirms this finding but points out that the Department of Education cannot be held responsible for the problem. The report suggests compensatory interventions or funding of various types.

The compensatory intervention is noted in the review of school finance. Bot (2003:126) says the Department of Education plans to ensure that free basic education is made available to the poorest of learners, for example, by giving households that receive social welfare grants an automatic 100% discount on fees. She points out that this gesture may be irrelevant, as research indicates that few poor communities pay fees anyway. She argues that it is more important to redirect funds to these schools for more learning and teaching support materials, maintenance and infrastructure and to subsidise transport.

In an effort to address malnutrition, the Department of Education has started the Primary School Nutrition Programme. The programme reached 286 primary schools and 116 340 primary school learners in the Northern Cape alone (Bot 2003:154-155). The province has also targeted high school learners since 2003.

The interventions outlined are encouraged.

With regard to the non-involvement of parents in homework activities, as indicated in 5.5.2.5, by (68,9%) of school governing body representatives, the participatory management or systemic thinking approach is recommended as referred to in 6.2.5.1.

6.2.6.9   Insufficient qualified teachers

The research acknowledges that there is an acute shortage of teachers in Mathematics and Science, although, as pointed out in 5.5.1.12, 300 teachers were trained in an Advanced Certificate in Education to improve Mathematics and Science in schools. The research suggests a similar programme for language teachers in particular, as there is a dearth of Afrikaans and English language teachers in the Northern Cape according to principals in 5.5.1.12 and school governing body members in 5.5.2.3.

6.2.6.10   Schools do not make provision for the en-skilling of teachers

School governing body representatives (100%) acknowledge that they are unable to make provision for the en-skilling of teachers, due to insufficient funds.

The research, however, suggests that school governing bodies take the lead in establishing a school-based professional development culture. This would ultimately start within a total quality management for systemic thinking approach, which is outlined in 6.2.5.1.

Criticos et.al. (2002:383) outline how en-skilling or professional development can take place within the school itself, but cautions that it can be very challenging. The following should take place:

- Observing and modelling good practice: Teachers can learn from observing their colleagues in their teaching environment. Teaching should be an open and collaborative activity.

- Thorough active experimenting: Research has shown that, in order to learn, adult learners need to play an active role in their own learning

- The areas in which teachers are lacking should be identified and development programmes should be sought to address them.

- Through reflection: Teachers need to receive feedback on what they are doing. This can be from other teachers, from learners or management of the school.

- Through reading: New ideas are often brought into the system by reading about other schools and other countries experiences.

- Informal study groups: Teachers should share ideas on various techniques, methodologies, etc. but sometimes simply to listen supportively to a colleague who is experiencing a difficult time in his or her classroom.

- Through formal staff development: In good schools, informal groups are supported by a system on staff development. This might include regular meetings, action-research, peer appraisal, learning area discussion groups.

- Thorough school-based research projects. This is often done with researchers from local teacher education institutions.

Buchel (1995:123) also suggests that in-service education and training should start at school level.

Rudduck (1987:129) shares this view. He says professional growth is a necessity as it leads to:

> *"the capacity of a teacher to remain*
> *curious about the classroom, to*
> *identify concerns in the process*
> *of teaching and learning, to value*
> *and seek dialogue with experienced*
> *colleagues and support in the analysis*
> *of data, and to adjust patterns of*
> *classroom action in the light of new*
> *understanding".*

In the light of the above discussion, schools are indeed able to play a role in en-skilling teachers, by initiating a staff development culture within a participatory management or total quality management approach.

6.3   Conclusion

Although the Northern Cape Education Department did much to mediate the implementation of the OBE curriculum, as indicated in 5.7, it is no surprise that teachers are still not implementing the curriculum effectively, given the poor quality of teacher education in the country in the past, as outlined in Chapter 1.

The research, therefore, recommends that serious consideration be given to a much more practice-oriented, curriculum implementation strategy, focusing on teacher development. This strategy should assist teachers, not only to understand the principals underpinning the curriculum, but to provide opportunities for being actively engaged in developing learning programmes and lesson plans. In addition, teachers should be provided with opportunities to facilitate learning, using different methodologies, as well as how to develop and use a variety of methods to assess whether outcomes have been achieved. Potenza and Monyoko (1999:237) have also called for this approach long before the review of C2005.

Over and above the practice-orientated, curriculum implementation strategy, focusing on teacher development, all teachers should also be equipped to not only select learning teaching and support material, but also to develop their own (Vide: discussion 6.2.4.1 and 6.2.4.3).

Given the fact that generally in-service courses are offered in the form of workshops and short courses, there is a need for districts to sharpen their monitoring, guidance and support, as 3.4.4.2 and 5.7 concur that it is a vital element for successful curriculum implementation.

As for the contextual realities of the schools and system as a whole, recommendations are made on an array of aspects, which include participatory school management, the management of organizational tasks, e.g. recording and reporting, strategies for the development of portfolios, lifting the morale of teachers and multi-cultural teaching.

To sum up, it is the researcher's contention that if a practice-orientated curriculum implementation strategy, which focuses on classroom practice, is put in place, taking the contextual realities of the school and system at large into account, curriculum implementation will undoubtedly be more effective.

CHAPTER 7

SUMMARY OF THE RESEARCH, FINAL RECOMMENDATIONS AND CONCLUSION

7.1   Introduction

In this final chapter, a summary of the previous chapters is given. This is followed by final recommendations and a concluding remark.

The objective of the study was to investigate the impact of curriculum transformation on classroom practice in Northern Cape schools. This meant determining if there are short-comings whilst implementing the OBE curriculum, as well as highlighting the factors which contributed positively or negatively towards the implementation of the curriculum.

The study also provides suggestions and solutions which could be included in a strategy which would enhance curriculum implementation and strengthen classroom practice.

Statements prompted responses on the dissemination of the curriculum, which included the following: During orientation, teachers were provided with an opportunity to critically reflect on and understand the principles underpinning the OBE curriculum 5.3.2.1(a), terminology was explained in a practical and understandable manner 5.3.2.1(b) and teachers were provided with an opportunity to practically develop a learning programme or lesson plan 5.3.2.1(c).

The current learning, teaching situation, with regard to the quality of transactions between teacher and learner, was also examined with the following statements: Teachers are equipped to establish a satisfactory OBE classroom climate by providing co-operative, well directed and purposeful activities 5.3.2.2(a), lessons are well prepared and interesting 5.3.2.2(a), teachers provide sufficient time to develop the learner's writing skills 5.3.2.2(c), learners are provided with opportunities to develop their reading skills 5.3.2.2(d), lessons are well structured and allow learners an opportunity to grasp concepts and skills incrementally 5.3.2.2(e), lessons are reflective of knowledge and skills which are relevant to the child's life world 5.3.2.2(f) and continuous assessment is an integral part of the teaching and learning process.

With regard to methodologies currently used, statements were used to probe the following: Teachers use a variety of teaching methods 5.3.2.3(a), teachers provide for the individual needs of learners 5.3.2.3(b), teachers provide multiple opportunities for learners to succeed 5.3.2.3(c) and teachers employ teaching methods with social learning goals which teach democratic principles, e.g. group discussions 5.3.2.3(d).

On the provision and use of resources, the following statements probed the availability and use of resources: Teachers have the available resources to present lessons which focus on knowledge, skills, values and attitudes 5.3.2.4(a), teachers refer learners to books, magazines, newspapers, journals, the internet etc., in the classroom when completing assignments 5.3.2.4(b) and teachers are equipped with the necessary skills to select and develop the necessary learning and teaching support material needed in the classroom 5.3.2.4(c).

The contextual realities of the school were examined with the following statements: School management teams are sensitive to curriculum transformation in terms of planning, co-ordinating and human resources 5.3.2.5(a), teachers are able to complete work scheduled for the year 5.3.2.5(b), teachers are involved in the interpretation of the curriculum and planning of learning programmes 5.3.2.5(c), regular learning area meetings arranged by district personnel are a necessity 5.3.2.5(d), learning area managers monitor, guide and support curriculum implementation regularly 5.3.2.5(e), teachers are able to manage the administrative and organizational tasks with ease, e.g. recording and reporting 5.3.2.5(f), learners are equipped with sufficient pre-knowledge when they arrive at the beginning of the year 5.3.2.5(g) and learners are able to complete the necessary tasks for their portfolios 5.3.2(h).

Respondents also list factors which they believe create barriers to teaching and learning in 5.3.3 and provide comments and suggestions on curriculum implementation in 5.4.1 and 5.4.2.

During interviews principals and school governing body representatives were asked similar questions related to the above-mentioned aspects. Comments and suggestions were also made.

Principals responded to the following questions: To what extent do teachers understand the principles underpinning the OBE curriculum? 5.5.1.1, are principals sensitive to curriculum transformation with regard to planning, co-ordinating and human resources? 5.5.1.2, are lessons planned according to OBE principles? 5.5.1.3, are the individual needs of all learners catered for in lessons? 5.5.1.4, does the school have the necessary resources for effective learning and teaching? 5.5.1.5, are reading and writing skills developed sufficiently at school? 5.5.1.6, are teachers able to complete their planned work scheduled for the school year? 5.5.1.7, does assessment form an integral part of the teaching and learning process?

5.5.1.8, is monitoring and support of curriculum implementation a necessity? 5.5.1.9, are regular subject meetings arranged by district personnel a necessity? 5.5.1.10, are teachers provided with the necessary support and guidance from district personnel? 5.5.1.11.

In addition, principals also listed factors which they regard as barriers to teaching and learning in 5.5.1.12.

School governing body representatives responded to the following questions: Have the principles underpinning the OBE curriculum been explained to the School Governing Body? 5.5.2.1, does the school have the necessary resources to effect quality teaching and learning? 5.5.2.2, does the school have qualified personnel to effect quality teaching and learning? 5.5.2.3, does the school make provision for the enskilling of teachers? 5.5.2.4, are parents involved in the homework activities of learners? 5.5.2.5, what factors does the school governing body regard as the major barriers to teaching and learning? 5.5.2.6 and what role does the school governing body play to assist the school in bringing about effective teaching and learning? 5.5.2.7.

A historical background of the rationale for curriculum implementation was investigated in 2.1. It gives an account of the features of the education system prior to 1994 and outlines the various policy actions debated before the first democratic elections.

The first White Paper on Education and Training is also outlined in 2.5.1, which according to the Minister of Education, Professor Bengu (1995:5) *"…..officially sanctioned the idea of an integrated education and training system…".* The White Paper also raised key values which are consistent with the principles outlined in the Bill of Rights of the Constitution.

These values include, an integrated approach to education and training referred to in 2.5.1.1, lifelong learning in 2.5.1.2, an outcomes-based approach to learning in 2.5.1.3, independent learning in 2.5.1.4, special attention in Mathematics, Science and Technology in 2.5.1.5, transforming the legacies of the past in 2.5.1.6, access to education and training for all in 2.5.1.7, the rights of parents in 2.5.1.8, the rehabilitation of schools in 2.5.1.9 and the restoration of accountability in 2.5.1.10.

The White Paper on Education and Training (1995:25) also introduced the NQF which as outlined in 2.5.1.11, serves to provide for the registration of national standards and qualifications based on learning programmes with clearly stated outcomes, which has become the center-piece of the OBE curriculum.
In addition, the structure of SAQA and the role of SAQA in implementing the NQF is set out in 2.5.2.1 and 2.5.2.2.

The outcomes-based approach to C 2005 is introduced in 2.5.4.1, while the structure and design of C2005 is elucidated in 3.2.1. Chapter three alludes to the difficulties encountered by teachers in implementing the new curriculum in 3.3 and gives the reasons why Minister Kader Asmal set up the Curriculum Review Committee. It furthermore provides a detailed account of the terms of reference of the Curriculum Review Committee, as well as the findings outlined in 3.4.3 and the recommendations made to the Department of Education in 3.4.4.

The detailed findings of the Curriculum Review Committee highlighted major flaws in C2005, hence the Council of Ministers agreed that C2005 be revised and strengthened. This process gave rise to the development of the Revised National Curriculum Statements Grade R-9, which was approved by Cabinet on the 20 March 2002 as government policy (Vide :3.6).

The research traces the impact of curriculum transformation on classroom practice through the PEI research findings in 4.2.2, which identifies institutional conditions, attitudes of teachers, teacher knowledge, teacher-centred practices and student learning, as aspects which affect teaching and learning.

In addition, the findings of the Department of Education's first National Systemic Evaluation report is outlined in 4.3, as well as the Northern Cape Education Department's report on the performance of Grade 10 learners in 2003, in 4.4.1.

What is abundantly clear, is that the findings of the PEI research and the National Systemic Evaluation report, suggest that the effects of Fundamental Pedagogics outlined in Chapter 1, still plagues the present teaching core. The Northern Cape Education Department's Grade 10 pass rate report, furthermore, reveals that
the introduction of C2005 had little to do with the low pass rate in 2003. It, therefore, seems that the context in which C2005 and the RNCS is operating, is still not conducive to effective teaching and learning.

7.2 **Research investigation into the impact of curriculum transformation on classroom practice in Northern Cape schools**

As indicated in 5.1, reflects that the Northern Cape Education Department has made concerted efforts to facilitate the effective implementation of C2005 and the RNCS.

The research, therefore, attempted to investigate the impact of curriculum transformation on classroom practice, after the support and guidance had been increased, as well as after the recommendations of the Curriculum Review Committee had been considered.

7.2.1 Methods used for the investigation

A literature study was made on the historical background to the rationale for curriculum transformation, as well as policy developments which led to the implementation of the OBE curriculum.

The structure and design of C2005 is illustrated and the developments after implementation is traced, which later gave rise to the streamlined and strengthened RNCS.

In an effort to further determine the effect of curriculum transformation on current classroom practice, various research studies were examined.

The research also enlists the views of all stakeholders, who are directly involved with classroom practice, to investigate the impact of curriculum transformation on classroom practice, after the Northern Cape Education Department provided the support and guidance, referred to in 5.1.

7.2.2 Questionnaires

Three questionnaires were used which were completed by learning area managers, teachers and learners. The questionnaires were based on the anticipated shortcomings with regard to curriculum dissemination, the quality of transactions between teacher and learner, methodologies currently used, provision and use of resources and contextual realities of the school. The responses to common questions were tabulated together to arrive at common deductions.

7.2.3 <u>Interviews</u>

It was possible to conduct interviews with 25 principals and 25 representatives from school governing bodies. Invaluable comments and suggestions were offered, which could play a role in developing a strategy to implement the curriculum more efficiently, so as to have the desired impact on classroom practice.

7.3 <u>Research findings and recommendations</u>

The aim of the research was to investigate the impact of curriculum transformation on classroom practice, after increased guidance and support had been given by the Northern Cape Education Department, as well as after considering the findings of the Curriculum Review Committee. Statements were, therefore, made to elicit responses on the anticipated shortcomings and difficulties regarding the dissemination of the curriculum, quality of transactions, methodologies currently used, provision and use of resources and contextual realities of the school. Similar questions were asked on the above-mentioned aspects. The recommendations regarding the findings will finally be summarised as follows:

7.3.1 <u>The dissemination of the curriculum</u>

The research supports the view of Carl (1995:136) that a critical factor in successful
change and development, is the level of preparedness of those involved, hence learning area managers should be acutely aware of the level of involvement or stages of concern as set out in table 6.1 and apply them during curriculum implementation.

In addition, teachers should be provided with opportunities to practically be involved in the development of lesson programmes and lesson plans, as well as practice-orientated in-service training should be provided.

Teachers will thus be provided with the hands-on, practical guidance, to confidently engage in co-operative, well directed and purposeful activities, that induce a satisfactory classroom climate.

Strategies, such as co-operative learning, will unfold as teachers are guided and supported.

In addition, teachers should also be provided with guidance and support, to apply the corrective techniques in developing writing skills, as well as strategies on how to establish an environment that promotes writing.

To further address the development of writing and reading skills, the research recommends that serious consideration be given to the functions of District Support Teams and Institutional-Level Support Teams as set out in the Department of Education, White Paper 6, on Special Needs Education: Building an Inclusive Education and Training System (2001(b):18-19).

In order to address the problem with regard to lessons not being structured to allow learners to grasp concepts and skills incrementally, the research recommends that teachers be provided with opportunities to engage in activities, whereby teachers plan lessons reflecting on educational theory that underpins OBE. An example of such an engagement is outlined by a learning area manager in 6.2.2.5.

The practice-orientated curriculum implementation strategy should also include, an emphasis being put on lessons, which are reflective of knowledge and skills which are relevant to the child's life-world. Continuous assessment should be an integral part of the teaching and learning process and not seen as an add-on activity.

7.3.2 The quality of transactions between teacher and learner

Serious consideration has to be given to this crucial area, as learning area managers (62,1%) and teachers (76%) indicate that teachers are not equipped to provide a satisfactory OBE classroom climate, which directly impacts on the quality of transactions between teachers and learners. Several suggestions are offered in 6.2.2.1, but what is abundantly clear is, that when support, guidance and training is provided to teachers, it should be practical in nature.

Over and above the strategies outlined in 6.2.2.1, it is important to note that to further enhance classroom competency, schools should be provided with support staff, that is, teacher tutors with reduced teaching loads, to lend support and guidance to practicing teachers in the form of school-focused in-service education and training activities.

7.3.3 Methodologies currently used

There is a noticeable shift from the traditional approach to learning, to an approach of self-discovery and active learning, illustrated in Table 5.13 and referred to in 6.2.3.1. It is, however, imperative that teachers be guided and supported in this regard, given the fact that the rationale for OBE curriculum implementation is to ensure that all learners emerge with outcomes deemed essential for a successful future, an intention which is also implicit in the critical and developmental outcomes, outlined in 3.2.1.1 and referred to in 6.2.3.

The practice-oriented curriculum implementation strategy, should also include strategies to provide for the individual needs of learners, such as those suggested by Duminy (1975:29), Farrant (1988:142) and Kramer (1999:104). Misconceptions surrounding the multiple opportunities notion should be clarified, as suggested in 6.2.3.3 and participatory teaching strategies should be emphasised.

7.3.4   Provision and use of resources

Although it is acknowledged that the provision of resources is problematic, as outlined in 6.2.4.1, the research recommends that an emphasis should be put on guiding and supporting teachers in the selection of relevant learning and teaching support material, as well as the use of the teacher's less tangible resources. These less tangible resources include time management, the use of classroom space and the use of the teacher's creativity.

It is also suggested that schools and the Northern Cape Education Department, should continue seeking private-public partnerships, in an attempt to augment school funding, as illustrated in 6.2.4.2.

7.3.5   Contextual realities of the school and system

Suggestions and recommendations on how to manage contextual realities of the school and system is offered in 6.2.5.

In an attempt to assist school management teams to be sensitive to curriculum transformation, in terms of planning, co-ordination and provision of human resources, Total Quality Management, referred to in 6.2.5.1. is recommended.

In addition, a similar approach, such as that of Senge (1999:34-37) is recommended.

Recommendations and suggestions are also offered on large class teaching and the notion of the provision of multiple opportunities in 6.2.5.2, as learning area managers (72,4%), teachers (94%) and principals (68%) complain that work scheduled for the year is not completed.

Emphasis should also be put on providing opportunities for teachers to be totally involved in learning programme and lesson development, as well as practical demonstration lessons, such as those referred to in 6.2.5.3.

The practice-orientated curriculum implementation strategy should have classroom-based monitoring, guidance and support and regular inter-active, learning area meetings, high on its agenda, as outlined in 6.2.5.5 and 6.2.5.6. These initiatives should assist teachers to manage problems with regard to insufficient pre-knowledge of learners and the management of assessment tasks for portfolios, as outlined in 6.2.5.7 and 6.2.5.8.

7.3.6 <u>Other factors which create barriers to effective classroom practice and recommendations and suggestions on how to manage them</u>

The research offers an array of recommendations and suggestions on how to manage factors which create barriers to effective classroom practice in 6.2.6.1. These recommendations which focus on large class teaching, could solve the problem regarding the high learner-teacher ratio. The recommendations offered by Criticos in 6.2.6.2. provides recommendations on the problems regarding ill-discipline of learners in 6.2.6.3.

Multi-cultural teaching is also cause for concern as illustrated in 5.6.6, but approaches, such as those offered in 6.2.6.4 are recommended.

The Norms and Standards for Language Policy in Public Schools, in the South African Schools Act 84 of 1996 seems enabling to overcome language problems, as illustrated by Brunton and Associates (2003:B31). Mohammed (2004:88) also illustrates practical ways of how to address human rights in the classroom.

With regard to the high absenteeism rate of teachers and learners, referred to in 6.2.6.5, suggestions are made on the infusion of HIV/AIDS awareness in Life Skills and Life Orientation. Recommendations and suggestions are also offered on participatory management of schools in 6.2.6.6, the use of adaptive assessment methods to assist learners who demonstrate learners with barriers to learning in 6.2.6.7, compensatory intervention to assist learners from poor-socio-economic circumstances in 6.2.6.8, the recruitment of teachers for English and Afrikaans in 6.2.6.9 and strategies which schools can use to establish a school-based professional development culture in 6.2.6.10.

7.4 **Conclusion**

Although C2005 has been revised and strengthened and the Northern Cape Education Department did much to mediate the implementation of the curriculum, as reflected in 5.1, the study shows that teachers are still ill-equipped to manage classroom practice effectively.

It may be due to the fact that they are still suffering from the effects of Fundamental Pedagogics, as suggested by Enslin (1990:83), NEPI (1992:17) and Vinjevold and Taylor (1996:160) or because the design features of the original version of the OBE curriculum was too cumbersome and the training to implement the curriculum was of poor quality.

There is however, no doubt that a practice-orientated curriculum implementation strategy should be developed, taking the recommendations and suggestions provided by the study into account, with due consideration on how to manage the contextual realities of schools and the system.

Carl (1995:138) reminds us through Georgiades ((1980:74) that, *"significant change in curriculum will not occur through wishful thinking, but through hard work and diligent application. Meaningful change demands a sense of understanding beyond all, commitment to improve education"*. The research, therefore, stresses serious consideration of the recommendations and suggestions offered, if classroom practice is to respond effectively to the critical and developmental outcomes set out in 3.2.1.1.

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ANNEXURE 1   TEACHER QUESTIONNAIRE

Mark your response with an x.

	AGREE	DISAGREE
1.1 The orientation and training for the OBE curriculum implementation provided you with an opportunity to critically reflect on and understand the principles underpinning the curriculum. Please provide reasons for you answer. ………………………………………………………… ………………………………………………………… ………………………………………………………… …………………………………………………………		
1.2 Terminology was explained in a practical understandable manner. If you disagree, please provide reasons for you answer. ………………………………………………………… ………………………………………………………… ………………………………………………………… …………………………………………………………		
1.3 During orientation you were provided with an opportunity to practically develop a learning programme or lesson plan. If you disagree, please provide reasons for you answer. ………………………………………………………… ………………………………………………………… ………………………………………………………… …………………………………………………………		
1.4 You are equipped to establish a satisfactory OBE classroom climate by providing co-operative, well directed and purposeful activities. Please provide reasons for you answer. ………………………………………………………… ………………………………………………………… ………………………………………………………… …………………………………………………………		

	AGREE	DISAGREE
1.5 Learners are eager to participate in lessons and take responsibility for their own learning. Please provide reasons for you answer.		
1.6 You have received guidance from district officials on the use of the different forms of assessment. If you disagree, please provide reasons for you answer.		
1.7 OBE provides you with an opportunity to ensure that all learners achieve success If you disagree please provide reasons for you answer.		
1.8 Curriculum 2005 allows you to be more flexible in employing a variety of teaching methods. Please provide reasons for you answer.		
1.9 You have the available resources to present lessons which focus on high skills, knowledge, values and attitudes. Please provide reasons for you answer.		

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	<u>AGREE</u>	**DISAGREE**
1.10 The teaching methods which you employ have social learning goals which teach democratic principles, e.g. group discussions. Please provide reasons for your answer.		
1.11 You are able to manage the administrative and organizational tasks in your classroom with ease, e.g. planning, recording, reporting. Please provide reasons for your answer.		
1.12 You are constantly involved in the interpretation of the curriculum and planning of learning programmes at your school. If you disagree, please provide reasons for your answer.		
1.13 District officials visit your classroom regularly to provide guidance and support. If you disagree, please provide reasons for your answer.		

	<u>AGREE</u>	DISAGREE
1.14 The present school year allows you sufficient time to complete your work schedule. If you disagree, please provide reasons for you answer.		
1.15 Your school management team is sensitive to curriculum transformation in terms of planning, co-ordinating and human resources. If you disagree, please provide reasons for your answer.		
1.16 Monitoring, evaluation and support of curriculum implementation is a necessity. If you disagree, please provide reasons for your answer.		
1.17 Assessment is an integral part of the teaching and learning process. If you disagree, please provide reasons for your answer.		
1.18 List the factors which you regard as the major barriers to teaching and learning? a).................................... b).................................... c).................................... d).................................... e).................................... f)...................................		

	AGREE	DISAGREE
1.19 You are able to provide for the individual needs of the learner. Please provide reasons for your answer. …………………………………………………………… …………………………………………………………… …………………………………………………………… …………………………………………………………… ……………………………………………………………		
1.20 You are equipped with the necessary skills to select and develop the necessary learning, teaching and support material needed in the classroom. If you disagree, please provide reasons for your answer. …………………………………………………………… …………………………………………………………… …………………………………………………………… …………………………………………………………… ……………………………………………………………		
1.21 It is necessary to confer regularly with fellow colleagues on issues relating to curriculum implementation.		

1.22 If you agree, how often should such meetings take place.

A	B	C	D
After each learning programme is completed	Every other day	Once a week	When problems arise

	AGREE	DISAGREE
1.23 Regular subject meeting arranged by district personnel is a necessity. If you disagree, please provide reasons for your answer. …………………………………………………………… …………………………………………………………… …………………………………………………………… …………………………………………………………… ……………………………………………………………		

	AGREE	DISAGREE
1.24 C2005 has been revised and strengthened and is currently being implemented in the foundation phase. Do you agree that it should be phased in over a number of years. Please provide reasons for you answer. …………………………………………………………… …………………………………………………………… …………………………………………………………… …………………………………………………………… ……………………………………………………………		
1.25 Teaching is much more enjoyable. If you disagree, please provide reasons for you answer. …………………………………………………………… …………………………………………………………… …………………………………………………………… …………………………………………………………… ……………………………………………………………		
1.26 Your lessons provide sufficient time for learners to develop their writing skills. Please provide reasons for your answer. …………………………………………………………… …………………………………………………………… …………………………………………………………… …………………………………………………………… ……………………………………………………………		
1.27 Your lessons provide opportunities to develop reading skills. Please provide reasons for your answer. …………………………………………………………… …………………………………………………………… …………………………………………………………… …………………………………………………………… ……………………………………………………………		

	AGREE	DISAGREE
1.28 Your lessons are well structured and allows learners an opportunity to grasp concepts and practice skills incrementally. If you disagree, please provide reasons for your answer. …………………………………………………………… …………………………………………………………… …………………………………………………………… …………………………………………………………… ……………………………………………………………		
1.29 Your lessons are reflective of knowledge and skills which are relevant to the child's life world. If you agree, please provide examples. …………………………………………………………… …………………………………………………………… …………………………………………………………… …………………………………………………………… ……………………………………………………………		
1.30 Your learners were equipped with sufficient pre-knowledge when they arrived at the beginning of the year. If you disagree, please provide reasons for your answer. …………………………………………………………….. …………………………………………………………….. …………………………………………………………….. …………………………………………………………….. ……………………………………………………………..		

SECTION B

      1.1.1 List any other problems you have encountered during the implementation of the OBE curriculum.

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      1.1.2 If you have any suggestions on curriculum implementation or teaching and learning in general, please write them down.

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ANNEXURE 2   LEARNER QUESTIONNAIRE

	AGREE	*DISAGREE*
2.1 You are eager to participate in lessons and take responsibility for your own learning. Please provide reasons for your answer.		
2.2 Lessons are well prepared and interesting. If you disagree, please provide reasons for your answer.		
2.3 The specific outcome is stated before the lessons start and you are aware of what is expected from you. If you disagree, please provide reasons for your answer.		
2.4 You are provided with more than one opportunity to succeed. If you disagree, please provide reasons for your answer.		

	AGREE	*DISAGREE*
2.5 Your teacher uses different methods to teach you. If you agree, please explain which methods are used. …………………………………………………………… …………………………………………………………… …………………………………………………………… ……………………………………………………………		
2.6 You are able to complete all the necessary tasks for your portfolio. If you disagree, please provide reasons for your answer. …………………………………………………………… …………………………………………………………… …………………………………………………………… ……………………………………………………………		
2.7 The classroom is a much more enjoyable place. Please provide reasons for your answer. …………………………………………………………… …………………………………………………………… …………………………………………………………… ……………………………………………………………		
2.8 Which factors have a negative impact on teaching and learning in your school. **a)……………………………. b) …………………………..** **c)……………………………. d)…………………………..** **e)…………………………… f)…………………………..**		
2.9 Your teacher refers you to books, magazines, newspapers, journals, the internet, etc. when you have to complete a project or an assignment. If you disagree, please provide reasons for your answer. …………………………………………………………… …………………………………………………………… …………………………………………………………… …………………………………………………………… …………………………………………………………… ……………………………………………………………		

	AGREE	*DISAGREE*
2.10　Your teacher is much more enthusiastic in the classroom. Please provide reasons for your answer.		
2.11 Lessons are challenging and provide opportunities for you to interact with your peers through group-work. Please provide reasons for your answer.		
2.12　Your teacher takes the uniqueness of learners into account when setting tasks. If you disagree, please provide reasons for your answer.		

LEARNING AREA MANAGER QUESTIONNAIRE

ANNEXURE 3

	AGREE	DISAGREE
3.1 Teachers understand the principles underpinning the OBE curriculum. Please provide reasons for your answer. ………………………………………………………………. ………………………………………………………………. ………………………………………………………………. ……………………………………………………………….. ………………………………………………………………..		
3.2 Teachers are able to interact and use C2005 terminology with ease. If you disagree, please provide reasons for your answer. ……………………………………………………………….. ……………………………………………………………….. ……………………………………………………………….. ……………………………………………………………….. ………………………………………………………………..		
3.3 Lessons are well planned and structured so as to stimulate knowledge skills, values and attitudes. If you disagree, please provide reasons for your answer. ……………………………………………………………….. ……………………………………………………………….. ……………………………………………………………….. ………………………………………………………………..		
3.4 You are able to access classrooms, so as to provide teachers with the necessary guidance and support. If you disagree, please provide reasons for your answer. ………………………………………………………………….. ………………………………………………………………….. ………………………………………………………………….. …………………………………………………………………..		

	AGREE	DISAGREE
3.5 During orientation, you provided opportunities for teachers to practically develop learning programmes. Please provide reasons for your answer. ……………………………………………………………….. ……………………………………………………………….. ……………………………………………………………….. ……………………………………………………………….. ………………………………………………………………..		
3.6 Teachers are equipped to establish a satisfactory OBE classroom climate, providing co-operative, well directed and purposeful activities. Please provide reasons for your answer. ……………………………………………………………….. ……………………………………………………………….. ……………………………………………………………….. ……………………………………………………………….. ………………………………………………………………..		
3.7 You provided the necessary guidance and support to teachers with regard to the different forms of assessment. Please provide reasons for your answer. ……………………………………………………………….. ……………………………………………………………….. ……………………………………………………………….. ……………………………………………………………….. ………………………………………………………………..		
3.8 During classroom visits, teachers employ a variety of teaching methods. If you disagree, please provide reasons for your answer. ……………………………………………………………….. ……………………………………………………………….. ……………………………………………………………….. ……………………………………………………………….. ………………………………………………………………..		

	AGREE	DISAGREE
3.9 Teachers provided multiple opportunities for learners to succeed. If you disagree, please provide reasons for your answer. …………………………………………………………... …………………………………………………………... …………………………………………………………... …………………………………………………………... …………………………………………………………...		
3.10 Teachers have the available resources to present lessons which focus on high skills, knowledge, values and attitudes. Please provide reasons for your answer. …………………………………………………………... …………………………………………………………... …………………………………………………………... …………………………………………………………... …………………………………………………………...		
3.11 Teachers employ social learning goals which teach democratic principles, e.g. group discussion. Please provide reasons for your answer. …………………………………………………………... …………………………………………………………... …………………………………………………………... …………………………………………………………... …………………………………………………………...		
3.12 Teachers are able to manage the administrative and organizational tasks with ease, e.g. planning, recording, reporting. Please provide reasons for your answer. ………………………………………………………….. ………………………………………………………….. ………………………………………………………….. ………………………………………………………….. …………………………………………………………..		

	AGREE	DISAGREE
3.13 During your visits to schools there is evidence that teachers are involved in curriculum interpretation and planning of learning programmes. Please provide reasons for your answer. ………………………………………………………….. ………………………………………………………….. ………………………………………………………….. ………………………………………………………….. …………………………………………………………..		
3.14 During classroom visits, learners were eager to participate in lessons and took responsibility for their own learning. Please provide reasons for your answer. …………………………………………………………... …………………………………………………………... ………………………………………………………….. ………………………………………………………….. …………………………………………………………...		
3.15 Teachers are able to complete work schedule for the year. If you disagree, please provide reasons for your answer. …………………………………………………………... …………………………………………………………... …………………………………………………………... …………………………………………………………... …………………………………………………………...		
3.16 School management teams are sensitive to curriculum transformation in terms of planning, co-ordinating and human resources. If you disagree, please provide reasons for your answer. …………………………………………………………... …………………………………………………………... …………………………………………………………… …………………………………………………………... ……………………………………………………………		

	AGREE	DISAGREE
3.17 You are able to monitor, evaluate and support curriculum implementation regularly. Please provide reasons for your answer.		
3.18 During classroom visits, you observed that assessment is an integral part of the teaching and learning process. Please provide reasons for your answer.		
3.19 List the factors which you regard as the major barriers to teaching and learning? **a)**.................................... **b)**................................. **c)**.................................... **d)**................................. **e)**.................................... **f)**.................................		
3.20 Teachers are able to provide for the individual needs of learners. Please provide reasons for your answer.		

	AGREE	DISAGREE
3.21　Teachers are equipped with the necessary skills to select and develop the necessary learning and teaching support material needed in the classroom. If you disagree, please provide reasons for your answer.		
3.22　It is necessary for teachers to confer regularly with fellow colleagues on issues relating to curriculum implementation.		
3.23　If you agree, how often should such meetings take place.		

A	B	C	D
After completion of learning programme	Every other day	Once a week	When problems arise

	AGREE	DISAGREE
3.24　C2005 has been revised and strengthened and is currently being implemented in the foundation phase. Do you agree that it should be phased in over a number of years. Please provide reasons for you answer.		
3.25　Teachers find teaching much more enjoyable. If you disagree, please provide reasons for your answer.		

	AGREE	DISAGREE
3.26 During classroom visits teachers provided sufficient time to develop the learners writing skills. If you disagree, please provide reasons for your answer. ………………………………………………………………… ………………………………………………………………… ………………………………………………………………… ………………………………………………………………… …………………………………………………………………		
3.27 During lessons, learners are provided with opportunities to develop their reading skills. If you disagree, please provide reasons for your answer. ………………………………………………………………… ………………………………………………………………… ………………………………………………………………… ………………………………………………………………… …………………………………………………………………		
3.28 Lessons are well structured and allows learners an opportunity to grasp concepts and practice skills incrementally. If you disagree, please provide reasons for your answer. ………………………………………………………………… ………………………………………………………………… ………………………………………………………………… ………………………………………………………………… …………………………………………………………………		
3.29 Lessons are reflective of knowledge and skills which are relevant of the child's life-world. If you agree, please provide examples. ………………………………………………………………… ………………………………………………………………… ………………………………………………………………… ………………………………………………………………… …………………………………………………………………		

	AGREE	DISAGREE
3.30 Learners are equipped with sufficient pre-knowledge specific to the grade they are in. If you disagree, please provide reasons for your answer. …………………………………………………………… …………………………………………………………… …………………………………………………………… …………………………………………………………… ……………………………………………………………		

SECTION B

3.1.1 List any other problems you have encountered during the implementation of the OBE curriculum.

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3.1.2 If you have any suggestions on curriculum implementation or teaching and learning in general, please write them down.

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ANNEXURE 4　　　*QUESTIONNAIRE 4*

INTERVIEW QUESTIONS: PRINCIPALS

4.1　　*To what extent does teachers understand the philosophy underpinning the OBE curriculum?*

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4.2　　*Are you sensitive to curriculum transformation with regard to planning, co-ordinating and human resources? Please elaborate on your answer.*

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4.3　　*Are lessons planned according to OBE principles?*

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4.4(a) Do teachers find the time to confer regularly with regard to curriculum matters?

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(b)   If they do, how often do they confer?

A	B	C	D
After each learning programme	Every other day	Once a week	When problems arise

4.5   Are the needs of all learners catered for in lessons?

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4.6   Does the school have the necessary resources for effective learning and teaching?

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4.7 **Are teachers provided with the necessary guidance and support from district officials?**

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4.8 **Are teachers able to manage the administrative tasks in the classroom with ease?**

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4.9 **Does the school make provision for the involvement of teachers in the interpretation and planning of learning programmes?**

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4.10 **Are you familiar with the design features of the C2005 and the changes made in the RNCS.**

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4.11 **Does assessment form an integral part of the teaching and learning process?**

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4.12(a) **Do teachers enjoy teaching more, with the advent of the new curriculum?**

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4.12(b) **Please provide reasons for your answer.**

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4.13 Do teachers provide opportunities for learners to incrementally develop concepts and skills?

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4.14 Are reading and writing skills developed sufficiently at your school?

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4.15 Does the school plan curriculum implementation within the whole school development context?

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4.16   *What measures does the school take to enskill teachers?*

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4.17   *Are teachers able to complete their planned work schedule within the school year?*

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4.18   *Do you believe that monitoring, evaluation and support of the curriculum is a necessity?*

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4.19   **Do you think that regular learning area meetings arranged by district personnel are a necessity?**

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4.20 Which factors do you regard as the major barriers to teaching and learning?

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4.21 Does the school have suitably qualified personnel to effect quality teaching and learning?

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4.22 Does circulars, newsletters and information reach your school regularly?

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ANNEXURE 5   **QUESTION 5**

INTERVIEW QUESTIONS: SCHOOL GOVERNING BODY MEMBERS

> **5.1**   *Has the philosophy underpinning the OBE curriculum been explained to the School Governing Body?*

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> **5.2**   *Does the school have the necessary physical resources to effect quality teaching and learning?*

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> **5.3(a)** *Do you think teachers enjoy teaching more, now that the new curriculum has been introduced?*

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5.3(b) Please provide reasons for your answer?

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5.4   Which factors do you regard as the major barriers to teaching and learning?

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5.5(a) Do you think learners find school much more enjoyable now that the new curriculum has been introduced?

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5.5(b) Please provide reasons for your answer.

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5.6   Do teachers make provision for the individual needs of learners.

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5.7   Does the school have suitably qualified personnel to effect quality teaching and learning?

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5.8   Does the school make provision for the enskilling of teachers?

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5.9(a) Are parents involved in homework activities of learners.

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5.9(b) If not please provide reasons for your answer?

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5.10   What role does the School Governing Body play to assist in the school in bringing about effective teaching and learning?

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