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INSTRUCTIONAL LEADERSHIP REGARDING

CURRICULUM 2005

by

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BLOEMFONTEIN

Promoter: Professor R. van der Merwe (Ph.D)

January 2002

DECLARATION OF ORIGINALITY

I hereby declare that the following thesis, entitled **INSTRUCTIONAL LEADERSHIP REGARDING CURRICULUM 2005**, hereby submitted by me for the degree Philosophiae Doctor at the University of the Free State, is my own independent work and has not previously been submitted by me at another university/faculty. I furthermore cede copyright of the thesis in favour of the University of the Free State.

D.M. PAINE
January 2002

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Chapter 1

General Introduction

1.1 Introduction

The introduction of Curriculum 2005 (C2005) with its outcomes-based approach, has been the subject of intense debate since 1990. The political landscape in South Africa changed when the apartheid state was coerced into releasing political prisoners (including Nelson Mandela) and unbanning political organisations. 1990 was also a critical turning point in curriculum debates inside South Africa. Until that time, South African education was characterised by a uniform and predictable curriculum policy environment that was seen as racist and discriminatory. Core curricula were devised for all schools and were introduced into schools with vastly different resource environments and, accordingly, produced vastly different consequences (Jansen 1999a: 4).

The significance of the political movement defined by 1990 was that, within South Africa, competing social movements and political parties began to move for a new and relevant curriculum in anticipation of what was to be the emergence of South Africa's first democratic state following national, non-racial elections. The result was that C2005 was launched in March 1997 as a new curriculum for South Africa.

The new political dispensation in South Africa requires a new way of looking at many things. A democratic constitution based on the principles of human rights and the removal of discrimination on the grounds of race, sex and religion means that education must change and play its part in preparing learners to be responsible citizens that will fit into our democratic society.

C2005 differs radically from the traditional, input-based approach by changing to an outcomes-based approach. This will cause a change in the role of the educator from a transferor of information to a facilitator and director of knowledge, and a change in the role of the learner from a passive receiver of information to an active participant in the learning process. Changes will also be necessary in the way the school is structured and therefore the delivery of the curriculum at local (school) level becomes crucial.

Great demands are placed on learners today to increase their store of knowledge and to develop the necessary skills, values and attitudes that will equip them for responsible citizenship. It follows that the school plays a part in equipping learners for the role they are going to play in society and in facing the challenges of the future where the application of knowledge and the use of skills will be of paramount importance. An attitude of life-long learning and critical and creative thinking are required and it is the responsibility of the school to inculcate these in the learners in their care.

It is the responsibility of the instructional leader of the school to acquire knowledge and develop skills that will address these issues and to set up the necessary procedures and programmes that will support these changes. The role of the instructional leader is to help maintain a teaching staff that can provide the best opportunities for teaching and learning. The instructional leader works with educators to develop their professionalism and enable them to create a learning environment conducive to quality teaching and learning (Drake and Roe 1986: 6; Frase and Hetzel 1990: 6; De Waal 2001: 3).

With South African education in a state of transition, it is imperative that the instructional leader be aware of the demands that C2005 and outcomes-based education (OBE) are going to make on the school and be ready to facilitate its implementation.

1.2 Statement of the problem

1.2.1 At national level

The people of South Africa are presently experiencing a period of widespread concern over the South African education system and the implementation of a relevant and accountable curriculum. In February 1997 Professor Bengu, the Minister of Education, announced the implementation of the Curriculum 2005 project, giving among others, the following reasons for the new approach:

- The goal of the review process was to phase in, with effect from 1998, a new curriculum, which is based on lifelong learning for all South Africans.
- Essentially, the new curriculum will effect a shift from one which has been content-based to one which is based on outcomes.

The literature describes the changes that will be required as being 'drastic' and will involve a paradigm shift:

- Vermeulen (1997:5) uses the term 'drastic' in describing changes taking place in education and states that after the January 1994 African National Congress (ANC) policy document was published, it was clear that 'a total transformation' of the existing education system was required by the new government.
- Lubisi, Wedekind, Parker and Gultig (1997:v) and Malan (1997:3) maintain that the move to outcomes-based education presents South African educators with a challenge significant enough to be called a 'paradigm shift' and feel that the need for on-going professional development of educators is accepted by all those who are attempting to transform the system.

The nature of the school will need to change and the educators and learners will have to develop new ways and attitudes towards teaching and learning. The literature outlines these changes. Lubisi *et al.* (1997:60) suggest that structural changes are needed in South African education that will make it possible for learners to move easily from one sector to another and this movement will occur throughout one's life. This is why the new system claims to be a lifelong learning process. But it means more than just this. It also means that learning does not

stop when one leaves school, but continues for the rest of one's life. This conceptual change has vast implications for learners. Knowledge and work skills are changing so rapidly in the world that people need to be constantly re-educated in order to keep pace with the changes, a philosophy that has been accepted by scholars of education for centuries. The instructional leader needs to be aware of these changes and constantly review the school's curriculum to ensure that these needs are being addressed (Lubisi *et al.*, 1997:66). The curriculum encompasses everything planned by educators which will help develop the learner. When the curriculum is being planned, the physical resources, work programmes, assessment criteria and the extra-mural programmes should all be taken into account (National Department of Education (NDE)1997a: 3, 4, 22).

Apartheid left us with two educational legacies: one was blatantly unequal provision of resources in schools and the second was the need to pursue quality (Van der Horst and McDonald 1997: 5-6; Lubisi *et al.* 1997: v; Diphofa, Vinjevold and Taylor 1999: 1-3). There is a need to address both issues and, to pursue these goals of educational transformation, the outcomes-based curriculum model was adopted. This was seen as a way of developing quality while advancing equity (Lubisi *et al.* 1997: v). C2005 was introduced to give all people the opportunity to learn, not only learners, but also adults and youths who have already left school. The vision of the changed education system is that all people be granted the opportunity to learn and develop their potential to the full, whether by means of formal or non-formal schooling. The new curriculum endorses the concept of life-long learning; is people centred and is success orientated (Van der Horst and McDonald 1997: 5; Chisholm 2000: 1).

The process of change is always difficult and South Africa was, in addition to the implementation of C2005, also going through a difficult time of uncertainty and adjustment, which included the redeployment of educators and the right-sizing of educational establishments in order to effect an equal provision of staff.

Education systems today are expected, not only to act as vehicles for redress and transformation, but also to provide the kind of citizens that will enable their country to become globally competitive (Diphofa *et al.* 1999: 1) A shift in orientation (also called a paradigm shift) brings with it some soul searching and a resistance to change, and at school level educators were quick to feel the winds of change (The Star 6 August; 13 August 2001).

In addition to this, the sudden launch of C2005 in March 1997 was attended by wordy, almost incomprehensible policy documents and a lack of sufficient educator orientation and training for the outcomes-based curriculum model. Just when the dust had settled on all of these developments and C2005 had been implemented in the early grades of the Foundation, Intermediate and Senior phases, it was announced that C2005 was under review by the Chisholm commission (Chisholm 2000: 2-5) and this looked set to change again (Sunday Times 20 August 2000). Other than the policy documents, there was little information from the National Department of Education, and the provincial departments of education, not through want of trying, provided little more. There was no clarity on the use of textbooks or much information on exactly what an outcomes-based approach to education meant, or how to plan lessons in this environment.

These, then, were the problems at national level and it was left to the schools to try to make sense of everything and to translate the policies into practice.

1.2.2 At school level

At school level the problems seemed enormous and insurmountable. The researcher identified the following:

- Secondary schools are conservative organisations and are not used to change. The Further Education and Training (FET) phase was imminent, but no information was available, and the Continuous Assessment programme (CASS) was introduced in secondary schools in the same year that C2005

was implemented in Grade 8. This meant that real changes had to be made to accommodate these programmes.

- In the months just prior to the implementation of C2005 (Sunday Times 25 June 2000), the Chisholm commission recommendations were rejected by Parliament, which placed school-based planning in a state of uncertainty.
- New instructional demands were placed on the school to provide effective solutions to these problems in this time of uncertainty. Time-tables and educator allocation were the first areas that needed to be addressed since instruction in an outcomes-based environment is significantly different from traditional secondary school programmes. Educators needed to be knowledgeable in learning areas rather than in subjects, and needed hands-on, on-going support and monitoring to develop learning programmes. With the uncertainty of the use of text books as a resource, other avenues of providing resources had to be explored and these were usually costly.
- The management and leadership of the school had to change. The increasing administration and management tasks of the principal meant that his instructional role was being eroded; there was always insufficient time available to attend the OBE/C2005 orientation courses and to read the relevant policy documents. Much time was also needed for staff development for the planning and implementation of C2005. The researcher argues in this study that schools need to adopt a participatory and whole school management/leadership style to effectively deal with the problem.
- There is a need, more than in the past, to include the school community and parents in planning and implementing a C2005 programme.

These are the problems at school level and they are threefold. Firstly, one needs to make sense of national and provincial policy regarding C2005, and secondly one needs to implement C2005 effectively into the secondary school and thirdly, in addition to all these problems, there is a dearth of knowledge and policy to guide and clarify the role of the instructional leader in a South African C2005 environment. The secondary school environment has changed in that new ways of time tabling, initiating staff development programmes, creating a learner-

centred environment and introducing the newer forms of assessment fall on the shoulders of the instructional leader. The structure of school organisation has also changed in a C2005 environment and with it the role of the instructional leader.

1.3 The aims of the study

The central aim of this research is an investigation into the role of the instructional leader regarding C2005 and to develop practical guidelines for instructional leaders.

The problem areas specified in 1.2.1 facilitated the formulation of the following specific aims:

- To investigate what is meant by OBE and to determine its origins and influence on the design and structure of C2005.
- To investigate the design and structure of C2005 and to determine what implications it has for school organisation and instructional leadership.
- To determine the role of the instructional leader in schools regarding C2005.
- To recommend ways in which instructional leadership can be effectively used to implement C2005.

This study will add to the body of academic knowledge by detailing the criteria necessary for effective instructional leadership regarding C2005 with its OBE origins, that is to say, how the present role of the instructional leader needs to be adapted or modified to fit in with the givens of an outcomes-based approach to education.

1.4 Research question

The research question for this study is: What is the role of the instructional leader regarding C2005?

1.5 Research design

To reach these goals the following methods were used to gather information:

1.5.1 Literature study

A literature study constitutes the main body of data. This was done by researching relevant primary and secondary sources consisting of official publications, year reports, research reports, books, journals and newspapers.

1.5.2 Qualitative study

A qualitative study was followed to generate information and data on the topics. Because of the strong sociological influence in education this method has been used to define human behaviour in educational fields and because of its "... interpretivist nature ..." (Mason 1996: 4), it was used to establish how people produce, experience and understand phenomena, such as outcomes-based education. Denzin and Lincoln (in Gall, Borg and Gall 1996: 28-29) define qualitative research as "... multimethod in its focus, involving an interpretive, naturalistic approach to its subject matter ... this means that qualitative researchers study things in their natural settings, attempting to make sense of, or interpret, phenomena in terms of the meanings people bring to them ...".

Qualitative studies offer the "... promise, quality, depth and richness ..." (Marshall and Rossman 1989: 19) and "... explains, describes or explores the phenomenon chosen for study ..." (Marshall and Rossman 1989: 21). This is necessary since the area being explored is relatively new and little data is available. Miles and Huberman (1994: 10) advocate qualitative research "... as the best strategy for discovery, exploring a new area ...".

The data was presented in the form of words rather than numbers, and as such was of more value than a frequency table. The general problem faced by the researcher was that, as OBE has not yet been implemented in secondary schools,

there existed the possibility of obtaining a null hypothesis should an empirical study have been aimed at instructional leaders regarding their knowledge of OBE and its introduction. In any event it would have ended up as a simple frequency table which would not have added to the body of knowledge.

A qualitative study, involving interviews with respondents who were leaders in the OBE debate from its inception, was undertaken. This part of the study was done by means of personal in-depth interviews. An interview guide and structured questions were used as guidelines.

This is a study about the role of the instructional leader in secondary schools regarding C2005 and it would have seemed obvious to interview educators actively engaged in C2005.

However, for the reasons mentioned in the previous paragraph, the researcher chose to select the participants from tertiary educational faculties or provincial curriculum departments. Because the researcher intended to continue interviewing until theoretical saturation had taken place, the number of participants to be used was not known at the start of the research.

The full details of the qualitative method are described in chapter 5 of this study.

1.6 Demarcation of the field of study

This study emphasises the role of the instructional leader regarding C2005. For the purposes of this research the Grade 8 year of schooling was selected since this represents the first year of C2005 implementation and secondary schools are the researcher's area of expertise. For the reasons outlined in section 5.5.1 the target group of respondents for the qualitative study were not school based educators, but people who the researcher felt had been leaders in the OBE/C2005 debate from the very beginning or who were actively involved with C2005 policy.

This study was conducted during the time period 1998 - 2001 and makes mention of, but does not examine, the National Curriculum Statement (the 'new' C2005) released for public comment on 31st July 2001. It was conducted through the Department of Curriculum Studies at the Free State University, Bloemfontein and concerns itself with instructional issues and the delivery of the curriculum.

1.7 Definition of terms

1.7.1 Instructional leadership

Instructional leadership is about stimulating and supporting those involved with teaching and learning. This involves building a cohesive social system within the school that pulls together to achieve the school's goals, and provides the necessary physical and logistical support for this to happen. The task of the instructional leader is to ensure that quality teaching and learning takes place. This task includes finding ways of improving the instructional programme (Gorton 1972: 101; Grösser 2001: 25).

Generally the task of the instructional leader is to improve the curriculum and teaching in the school and to lead staff in making decisions about the learning that is to go on. Instructional leadership is seen as the supervision of all the activities leading to the improvement of instruction, activities related to morale, improvement of human relations, in-service education, curriculum development and the provision of direction and resources. Specifically the task involves manipulating the technical variables such as time tabling, allocating staff to learning areas, providing the physical requirements (flat space, chairs, desks, overhead projectors and so on), the providing and managing resources (human and material) and providing the necessary support and motivation for staff development and appraisal (Wiles 1967: 117; Mazzarella 1976: 1; Rossow 1990: 42; Keefe and Jenkins 1991: 207).

In a C2005 environment in a modern-day secondary school many traditionally accepted structures and processes are going to be effected because of the approach of the new curriculum. The major change is that traditional subjects have been integrated into learning areas and the number of periods allocated on a time-table should follow the notional time as advocated by the policy documents. Staff development and training need to be dealt with in a pro-active and on-going way because the integration of subjects in learning areas means that some educators will be teaching parts of learning areas that they are not proficient in.

Educational leadership of the school is mainly the domain of the principal with instructional leadership forming the most important component of it. It is argued later that the multitude of managerial and administrative tasks that are required in running a modern secondary school often dictate against the principal carrying out the role of instructional leader (see 4.2.1; 4.3.2; 4.6.1; 4.6.2). In this study, therefore, the instructional leader can refer to a knowledgeable, competent person other than the principal.

1.7.2 Outcomes-based education

OBE is an approach to education in which teaching/learning is clearly focused and organised around that which is essential for learners to be able to do at the end of their learning experience. Education that is outcomes-based accepts as its premise that the definition of outcomes should form the basis of all educational activity, including the description of qualifications, the development of curricula, the assessment of learners, the development of educational structures and institutions, and even the planning of finances, buildings and other resources. OBE as an approach focuses on two things. Firstly it focuses on the desired end results of each learning process. These end results are called the outcomes of learning, and learners need to demonstrate that they have attained them. These outcomes will therefore be assessed continuously to ascertain whether the learners are making any progress. Secondly, the focus is on the instructive and

learning process that will guide the learners to these end results. Educators are required to use the learning outcomes as a focal point when they make instructional decisions and plan their lessons (Van der Horst and McDonald 1997: 7; Jansen 1999a: 7).

This means that all decisions made about the curriculum, instruction, assessment and record keeping must be focused on the desired end-results of the learning process (in other words, the outcomes). Implementation of OBE must begin by identifying the knowledge, skills and values that learners must be able to demonstrate at the end of their school careers, in other words, that which they will take away with them into the adult world. Once the outcomes have been identified and formulated, the curriculum and instructional processes are designed to allow learners to achieve them. The philosophy of OBE has had a marked influence on the structure and design of C2005 and this has placed an enormous responsibility on the shoulders of instructional leaders. All that is familiar, such as syllabi, textbooks, exams and fixed time periods, are all replaced with unfamiliar concepts, no organised syllabus, multiple resources, flexible time-frames and criterion-referenced testing (Spady 1994a: 1; Boschee and Baron 1994: 193; Ellis 1997: 8 - 11; Volksblad 2 September 1997; Van der Horst and McDonald 1997: 7; Malan 1997: 10; Spady and Schlebusch 1999: 29; Sunday Times 23 January 2000, 2 July 2000; Volksblad 5 August 2000).

Therefore OBE is a learner-centred, results-oriented approach to education and is based on a belief that all individuals can learn. In broad terms OBE is a commitment to the success of every learner, a philosophy that focuses educational choices on the needs of the learner and is a process for continuous improvement.

1.7.3 Curriculum 2005

C2005 is an attempt by the state to create a strategic plan to change the curriculum of schooling in South Africa. The general framework of C2005 is one

that has an over-arching set of critical outcomes and specific outcomes in 8 learning areas. The critical outcomes reflect communicating, problem-solving, critical thinking, team work, environmental and social responsibility and so on, and are essentially a mixture of competencies and life-role performances. C2005 defines 3 areas of learning; the Foundation Phase (Grade 0-3), the Intermediate Phase (Grade 4-6) and the Senior Phase (Grade 7-9). Learner-centredness is a policy in C2005 and gives considerable emphasis to constructivist approaches to learning and also introduces new forms of assessment such as continuous, formative assessment (Malcolm 1999: 102-103).

The introduction of C2005 was the first curriculum statement of the new democratic government. It is significant in that its intention was to reform the previous dispensation's apartheid education. The new curriculum moves away from a narrow input-based, content bound, norm-referenced system to one which is outcomes-based, content independent, life skill orientated and criterion-referenced. The curriculum aims at developing learners with broader vision, concerns and identities. It represents the views of all the people of South Africa. The NDE maintains that C2005 is regarded as a key project in the transformation of South African society and states that C2005 is directed towards 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 (National Department of Education (NDE) 1997e: 3; Vermeulen 2000: 9-14; Chisholm 2000: 1; Olivier 2001: 29).

C2005 is therefore a curriculum approach which has OBE elements as part of its structure (for example mastery learning and constructivism) and is the vehicle by which an outcomes-based approach is to be implemented in South Africa. It is called C2005 because it represents the date at which OBE will be implemented across the entire school system. In other words it is the year in which it is envisioned that the first matrics will write a new exam based on C2005 approaches.

Some of the more relevant definitions are to be given, but it will also be necessary to provide explanations of terms in the course of discussions in the chapters.

1.8 Layout of the research

This study is composed of six chapters and these are set out as follows:

Chapter 1 includes an introduction to the research, the statement of the problem, the aim of the study, an explanation of the research design, the demarcation of the field of study, definitions of key terms and an outline of the contents of each of the chapters.

Chapter 2 briefly explains the circumstances leading up to the introduction of OBE as a forerunner of a new curriculum in South Africa and examines OBE as a basis for C2005.

Chapter 3 examines the structure and implementation of C2005 in South Africa.

Chapter 4 discusses the role of the instructional leader as provided by the literature and highlights those issues that need to be kept in mind when applying instructional leadership in the context of C2005.

Chapter 5 discusses the results of the qualitative research into the role of the instructional leader regarding C2005.

Chapter 6 will highlight the criteria necessary for successful instructional leadership regarding C2005. Recommendations based on the findings of the qualitative research will be made. The role of the instructional leader will be explained and defined, and recommendations will be made that will assist in the implementation of C2005 in secondary schools.

1.9 Summary

This chapter introduces the concept of C2005 with its outcomes-based approach, and outlines the political climate that brought about the introduction of a new curriculum. At national level there was a need to dismantle the inequalities of the apartheid era and introduce a new curriculum that addressed the issues of democracy and pursued the goals of educational transformation. This meant that, at school level, organisational changes would have to be made because implementing C2005 is so very different from what has gone before. School management and leadership needs to change to accommodate demands such as increased resource provision, educator development and new teaching and assessment strategies.

The aim of the study outlines the need to provide guidelines for the role of the instructional leader in a C2005 environment. To do this there is a need to investigate the role of the instructional leader in schools, the philosophy of OBE and its influence on C2005, and to investigate the design and structure of C2005 to determine what implications it has for school organisation and instructional leadership. The research question of the study is thus to determine the role of the instructional leader regarding C2005.

The research design was outlined as being a literature study and a qualitative study using six respondents who were leaders in the OBE debate from its inception. The terms instructional leadership, OBE and C2005 were fully defined in order to clarify the terms used in the aims of the study.

The chapter concludes by giving an outlay of the research of each of the six chapters.

Chapter 2

Education in South Africa and the need for change to an Outcomes-Based Curriculum

2.1 Introduction

In 1995 South Africa announced the introduction of a new and innovative educational programme, C2005. The announcement was made in a series of White Papers on education, the most significant being *The White Paper on Education and Training of 1995* (NDE 1995a: 1-24). This document was significant for a number of reasons. Firstly, it introduced the relatively new ideas of integration and competency as elements of system-wide education restructuring (Jansen 1999a: 7-9). Secondly, it highlighted the central problem facing education in South Africa, namely, that South Africa has never had a truly national system of education and training. This was due to the racial apartheid policy of a differentiated and cultural education system based on the philosophy of Christian National Education as stipulated in the National Policy Act No. 39 of 1967 (NDE 1997g: 8; Pretorius 1998: 2-3). Thirdly, along with the upgraded 1996 version, it announced that C2005 would be coupled to an outcomes-based approach to education and training (Jansen 1999a: 7 - 9).

In broad terms C2005 had three major goals:

- To adapt the South African education system to the post-apartheid era.
- To bring the education system up to international standards.
- To align the education system better with the needs of the new South Africa.

(Bamps, Cronjé, Elen and Thoka 1998: 3)

The introduction of C2005 and OBE initially sparked an overwhelming critical response, mainly due to the suddenness of OBE's emergence in policy documentation and the fact that the classroom implementers had little or no say in its formulation and introduction. (Jansen 1999a: 8). The educators' main criticisms were that OBE was completely different to their normal understanding of teaching and the methods they were accustomed to using.

In order to understand the need for a new education system in South Africa it is necessary to be aware of the historical circumstances which led from the gradual development of education to the current state of affairs in our schools. This chapter will therefore examine the historical, political and educational background that shaped and changed the education system from Jan van Riebeeck's arrival at the Cape, to the mid-1950s and then to the late 1990s when the full effects of the democratic elections of 1994 were felt. This will be followed by an examination of the distinction between C2005 and OBE and give a detailed overview of outcomes-based methodology as developed by Spady.

2.2 Background

From the very beginning in the 1600s, and then later in the 1800s, education in South Africa has been structured on religious and racial lines. Initially trade between the white colonists and the blacks was forbidden and later a frontier and adjacent no-man's land kept the races apart. The very first educators, who only taught the white settler children, were appointed by the church, and then later when the British colonists tried to initiate a policy of integration and equality the Voortrekkers saw this against the will of God. As a result only a very few black children, who were able to attend rural mission schools were able to attain any standard of education whatever (Barnard and Coetsee 1976: 16-17; Behr 1988: 11-12).

At the turn of the century education was found to be in a chaotic state in all provinces and certain unsuccessful moves were proposed to try to bring the divergent provinces and their policies into line under an organised, centralised and controlled education system (Coetzee 1958: 174; Behr and Macmillan 1971: 12). In 1948 the Nationalist Party came into power and in 1949 the Group Areas Act became the first manifestation of its policy of apartheid whereby they hoped to protect the authority and supremacy of the white community (Behr 1988: 12-17). In 1953 the Bantu Education Act imposed separate education systems for Whites, Indians, Coloureds and Blacks. One of the most dramatic events and turning points in the education evolution, which happened as a result of growing discontent in the Black community, was the Soweto rioting of 1976. This was in reaction to the enforcement of Afrikaans as the language of instruction and the blatant inequalities in educational opportunities between the races. Efforts to abolish this system resulted in the formation of the radical People's Education movement of the 1980s which viewed the classroom as the site of the struggle against apartheid (Kraak 1999: 22). State repression of the National Education Crisis Committee's structures led to the demise of this movement. The dual phenomena of globalisation and massification emerged at this point. Globalisation arose from a need to keep up with the rest of the world and massification came about as a result of previously marginalised communities having access to further education. The dual pressures of globalisation and massification contributed to the systemic discourse of Education and Training. The ANC, along with the Congress of South African Trade Unions (COSATU) has played a role in the evolution of a systemic discourse.

After the democratic elections in 1994, South Africa entered a period of rapid political change which impacted directly on educational issues and it was clear that the ANC planned a total transformation of the educational system. Their policy document published in 1994 '*A Policy Framework for Education and Training*' gave direction to their policies and put forward the following goals for the education and training system:

- All individuals should have access to lifelong education and training irrespective of race, class, gender, creed or age.
- The reconciliation of liberty, equality and justice, so that citizens' freedom of choice is exercised within a social and national context of equality of opportunity and the redress of imbalances.
- 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.

In addition to these general goals for the education and training system, a number of principles are also mentioned:

- In the process of ensuring education and training for all, there should be special emphasis on the redress of educational inequalities among historically disadvantaged groups such as youth, the disabled, adults, women, the unemployed and rural communities.
- There should be nationally determined standards for accreditation and certification for formal and non-formal education and training, with recognition of prior learning and experience.
- The provision of education and training should be planned as part of a coherent and comprehensive national, social and economic reconstruction and development programme, including a national strategy for the development of human resources and the democratisation of society.

(Bamps *et al.* 1998: 14)

This policy document also considered the replacement of the existing curriculum in order to achieve the specified goals - " ... the reconstruction of the curriculum for schooling and for other contexts will be essential in order to rid the education and training system of the legacy of racism, dogmatism and outmoded teaching practices ... " (ANC 1994: 23). The curriculum is central to any education system and curriculum policies are developed and changed in compliance with certain political and economic considerations. The curriculum of the previous

dispensation was irrelevant for some learners and was heavily biased in favour of some groups (NDE 1997g: 10; Pretorius 1998: vii).

Consequently, the old, discriminatory curriculum came under immediate review and in August 1995 the Department of Education launched a programme of curriculum restructuring by setting up the Consultative Forum on Curriculum (CFC) comprising representatives of the national and provincial education departments. This resulted in the report '*A Curriculum Framework for General and Further Education and Training*' (Vermeulen 1997: 30). What is clear from the above-mentioned issues is that the education system required a complete review and new ways of looking at teaching and learning were sought.

The period 1990 - 1994 was not characterised by any dominant education reform movement. It was, however, dominated by ANC/COSATU thinking. The period immediately after the democratic elections, concentrated on the development of OBE and training. The rise of OBE is the product of three historical antecedents. The first was the ascendancy of competency-based education and training in the South African industry after 1985. The second was the adoption of the Australian and British 'outcomes' models in the policy development models of the ANC and COSATU since the early 1990s, and the third was the resurrection of the radical rhetoric of 'People's Education' which emerged during the heat of the struggle in the mid-1980s. These three antecedents have been forged together to create a hybrid of education methodology - Outcomes-based Education and Training (OBET). This goes beyond the narrow cognitive confines of competency-based models by incorporating the progressive pedagogic principles of 'People's Education'. An entirely new learning methodology has now been created which is radical in discursive practice, but is simultaneously behaviourist in assessment.

2.2.1 Competency assessment in South African industry

The shift to competency-based education and training began in 1985. It came into being as a result of the National Training Board's investigation into artisan

training. Time-based apprenticeship is now on the decline and it has been proposed that a competency-based model of assessment be instituted along with industry-run Industry Training Boards. The adoption of competency-based Education and Training in the mid-1980s was part of a larger apartheid strategy of freeing market forces and diminishing the role of the state in regulating the economy and labour market. Competency-based Education and Training (CBET) was inserted into an unchanging apartheid work and training environment based on narrow interpretations of skill and cost-minimising approaches to human resource development. CBET was stigmatised from the start because of its association with industrial relations of the apartheid past (Kraak 1999: 38-39).

2.2.2 The policy evolution in South African Education and Training

The shift from competency mind-sets to a more progressive reading of outcomes can first be seen as an emergent discourse in ANC and COSATU policy literature in the 1993 document '*A Framework for Lifelong Learning*', and the January ANC policy document '*A Policy Document for Education and Training*'. These initial signals of a future pedagogical direction (using outcomes-based Education and Training) became amplified in the 1994 National Training Strategy Initiative and the ANC government's *White Paper on Education and Training* in March 1995.

However, the real turning point in the rise of an outcomes-based discourse can be associated with three important developments during the period December 1995 to March 1997.

2.2.3 The establishment of Outcomes-Based Education and Training in South Africa

The first development was the establishment, by the Ministry and the National Department of Education, of a number of task teams and consultative committees whose mandate was to develop the National Qualifications Framework (NQF) and the idea of an integrated approach to school curricula using an outcomes-based

methodology. The subsequent reports published by the National Department of Education, most notably '*A Framework for General and Further Education and Training*', '*Lifelong Learning through a National Qualifications Framework*', and a '*National Qualifications Framework*' were all definitive in placing Outcomes-Based Education and Training (OBET) firmly on the South African pedagogic map (Kraak 1999: 38-40).

The second decisive development in establishing OBET as the dominant discourse was the release of the Department's first official public document on OBE and training, published in March 1997 and entitled *Curriculum 2005: Lifelong Learning for the Twenty-first Century* (NDE 1997a; Sunday Times 8 June; 6 July 1997).

Finally, the third development which contributed to the ascendancy of an outcomes-based approach was the launch, and the first meeting, of a fully constituted South African Qualifications Authority (SAQA) in August 1997 and the statutory deliberations regarding the NQF which followed thereafter. SAQA has since passed a number of proclamations which are beginning to establish the essential building blocks of an OBET system.

In response to criticism, the Minister of Education, Kadar Asmal, set up the Chisholm commission of Inquiry to investigate the whole issue of C2005 (Sunday Times 4 June 2000; 25 June 2000; 2 July 2000; 20 August 2000; 24 December 2000; 11 March 2001; The Teacher January 2001).

The recommendations of the Chisholm Review Committee, presented in May 2000, were rejected two months later by both the Cabinet and the Committee of (provincial) Heads (Vermeulen 2000: 3). The recommendations of the Chisholm Review Committee are discussed in section 3.13.

When the Minister of Education announced the introduction of the new curriculum in 1995, implementation was scheduled for all grades (1-12) by the year 2000. In

1997 the implementation time-table was revised to 2005 and, in line with this, the new Curriculum became known as C2005.

By March 1997 a comprehensive plan for implementation had been produced. The implementation plan, designed to take place between 1997 and 2005, was revised several times. To date (2001), Grades 1, 2, 3, 4, 7 and 8 have been implemented. The researcher has found that the introduction of C2005 into grade 8, that is to say, the first year of secondary school, as it is currently run, has not been easy and has caused many problems. These, and other issues will be discussed in Chapter 4.

2.2.4 Conclusion

It is apparent that the introduction of C2005 into South Africa has been several years in the making. It is set against political, social, educational and economic agendas, each of which had a part to play in its design and implementation. The main vehicle of the implementation of C2005 is the educational philosophy of OBE (Sunday Times 23 January 2000; 11 June 2000). Therefore, it is necessary to examine the structure of OBE and explain its underlying concepts in order to understand fully its impact on C2005.

2.3 Outcomes-Based Education

2.3.1 Introduction

OBE is, according to Spady (1994a: 1) and Spady and Schlebusch (1999: 29), a method of education in which teaching/learning is clearly focused and organised around that which is essential for learners to be able to do at the end of their learning experience. Malan (1997: 10) goes even wider and explains that education is outcomes-based " ... when it accepts as its premise that the definition of outcomes should form the basis of all educational activity, including the description of qualifications, the development of curricula, the assessment of

learners, the development of educational structures and institutions, and even the planning of finances, buildings and other resources ... ". Van der Horst and McDonald (1997: 7) see OBE as an approach focusing on two things. Firstly the focus is on the desired end results of each learning process. The desired end results are called the outcomes of learning and learners need to demonstrate that they have attained them. These outcomes will therefore be assessed continuously to ascertain whether the learners are making any progress. Secondly, the focus is on the instructive and learning process that will guide the learners to these end results. Educators are required to use the learning outcomes as a focus point when they make instructional decisions and plan their lessons (see 2.3.1; 2.3.2; 2.3.3.6.1; 4.3.2; 4.7).

This means that all decisions made about the curriculum, instruction, assessment and record keeping must be focused on the desired end-results of the learning process (in other words, the outcomes). Implementation of OBE must begin by identifying the knowledge, skills and values that learners must be able to demonstrate at the end of their school careers, in other words, that which they will take away with them into the adult world (Volksblad 5 August 2000; Sunday Times 2 July 2000; 23 January 2000; Volksblad 2 September 1997; Ellis 1997: 8 - 11). The old dictum that 'Education is what you have left after you have forgotten everything you learned at school' takes on a new and significant meaning in the context of OBE. Once the outcomes have been identified and formulated, the curriculum and instructional processes are designed to allow learners to achieve them. C2005 places an enormous responsibility on the shoulders of instructional leaders. The paradigm shift that is required to accept the OBE philosophy in the school system is an educational quantum leap. All that is familiar, such as syllabi, textbooks, exams, fixed time periods, are all replaced with unfamiliar concepts, no organised syllabus, multiple resources, flexible time-frames and criterion-referenced testing. Thus, the major task of the instructional leader is staff training and orientation (see 4.7).

According to Boschee and Baron (1994: 193), OBE is learner-centred, results-oriented and based on a belief that all individuals can learn. In broad terms OBE is:

- A commitment to the success of every learner.
- A philosophy that focuses educational choices on the needs of the learner.
- A process for continuous improvement.

The strategies for the implementation of an outcomes-based programme require that:

- What a learner is to learn is clearly defined.
- Each learner's progress is based on demonstrated achievement.
- Each learner's needs are accommodated through multiple, instructional strategies and assessment tools.
- Each learner is provided time and assistance to realise his full potential.

OBE has been seen world-wide as a means to address educational problems and ensure success for all learners. Although not stated in as many words, OBE can be seen as a way of emancipating learners and educators from traditional practices which lead to educational inequality (Capper and Jamison 1993: 427) and "... an outcomes orientation will free them from the shackles of (an) oppressive system ..." (Capper and Jamison 1993: 432). Spady and Marshall (1991: 68) describe it as "... a trans-disciplinary, outcomes-based, open-system, empowerment-oriented approach to schooling ...".

OBE has been introduced into many parts of the world such as the USA, Canada, and Australia, usually as part of some type of educational innovation (Sunday Times 8 June 1997; Bamps *et al.* 1998: 3), the approach and structure being different in each case. Evans and King (1994: 12) argue that "... OBE is an umbrella-concept under which various reform efforts can be placed and people who ask "What exactly is OBE?" may get several answers ...".

Malan, (1997: 10) describes OBE as: "... the process of teaching and learning - is *outcomes-based* when it accepts the premise that the definition of outcomes should form the basis of all qualifications, the development of curricula, the assessment of learners, the development of educational structures and institutions, and even the planning of finances, buildings and other resources ...". Van der Horst and McDonald (1997: 7) maintain OBE is a "... learner-centred, results-oriented approach to learning ...".

2.3.2 OBE as an alternative

Seen against the characteristics of traditional education (memorisation, out-dated methods, high failure rates, inequality), it comes as no surprise that OBE is seen as an attractive alternative (Evans and King 1991: 73-75). If OBE is implemented in the ways described above, then it becomes a means of empowering learners and educators and by so doing can be used as a means of transformation. It is therefore understandable why South Africa, a country in a state of political change, saw OBE as a means of empowering educators and learners.

C2005, a South African version of OBE, was designed to meet the needs of a new education system and uses outcomes-based methods to prepare learners to meet the criteria set by the 7 generic critical outcomes and the 66 specific outcomes of the 8 Learning Areas.

From the above then, OBE has several implications that impact radically on the teaching and learning situation. Firstly, there is a learning outcome that learners are expected to master or demonstrate at the end of a learning unit. Secondly, there needs to be a change in the curriculum. The 'design down' policy advocated by Spady has wide-ranging implications. Thirdly, there needs to be a different approach to the development of teaching aids, teaching material and resources. Lastly, a radical change in assessment is necessary (Elen, Louw, Rosseel, Schippers, Van Wyk and Van Wyk 1999: xiii).

These changes are necessary especially now that South Africa is part of the international community and as such is influenced by changes and paradigm shifts that take place in other parts of the world. Education in particular has come under the spotlight since the early 1970s (Malan 1997: 2), as more and more calls were heard for education to be more relevant and more accountable. Changes in curriculum design and implementation and assessment techniques were called for. The next section of this study will detail these changes.

2.3.3. The Information Age Paradigm

2.3.3.1 Introduction

It follows that with the introduction of C2005 to South Africa, a paradigm shift in teaching and educator/learner behaviour is necessary (Vermeulen 1997: 30; Malan 1997: 3; Elen *et al.* 1999: xii). Van der Horst and McDonald (1997: 6) refer to it as a "... shift in orientation ...".

A paradigm is defined as a model, theory, perception, assumption or frame of reference (Covey 1989: 23) and as:

- A shared set of assumptions.
- A framework for thought.
- A game with a set of rules.
- A basic way of perceiving, thinking and doing - associated with a particular vision of reality.
- A set of rules and regulations that first define boundaries and tell you what to do to be successful within these boundaries (NDE 1997g: 6).

A paradigm shift is a whole new way of seeing things and, by implication, a whole new way of thinking about things (see 1.2.1). This results in feeling different about something and then behaving in a different way. It also means "to move to a new mindset and attitude and change to a new game with a new set of rules" (Covey 1989: 31; Lubisi *et al.* 1997: 4; NDE 1997g: 6). The old, traditional system

of education in South Africa is sufficiently different from C2005 in so many ways that a paradigm shift on the part of educators and learners is necessary (see 1.2.1; 2.3.4). This paradigm shift will require a new type of learner. The learner will no longer sit in class and passively absorb information from the educator and use one source - the textbook, but will be proactive in collecting, selecting and critically analysing information from a variety of sources. The educator will no longer stand in front of the class and transmit information to learners, but will act as facilitator and guide learners to different sources. The educator will not cover the syllabus, his learners will rather *discover* the syllabus.

The role of the instructional leader in this process is obvious and important. The various roles of the instructional leader and the ways in which instructional leadership is carried out in an OBE environment in the context of C2005 are discussed in Chapter 4 of this study.

Spady and Marshall (1991:72), Spady (1994a: 28-30) and Spady and Schlebusch (1999: 16-24) maintain that current, traditional curriculum thinking is mired in an Industrial Age model, governed by an Agricultural Age calendar. Education in general, and curriculum design in particular, are by nature conservative and are not keeping up with twenty-first century thinking. The latter part of the twentieth century brought with it technological changes that have gathered momentum in the new millennium. Major changes in economy and society have ushered in the Information Age and, in general, this changing world demands far higher learning results from schools and OBE has the potential to meet these demands (Spady 1994a: 28). Tyler (1973: 17) cautions that much apprenticeship training is slow and time-consuming and is not in keeping with the rapid changes in technology. Schools can help by introducing transfer training that allows learners to cope with rapid change and job changes.

Dryden and Vos (1994: 36) define 15 key trends that will shape learners' futures. These, in no particular order, are:

- The age of instant communication.

- A world without economic borders.
- Three steps to a one-world economy.
- The new service society.
- From big to small.
- The new age of leisure.
- The changing world of work.
- Women in leadership.
- The decade of the brain.
- Cultural nationalism.
- The growing underclass.
- The active ageing of the population.
- The new do-it-yourself boom.
- Co-operative enterprise.
- The triumph of the individual.

Dryden and Vos (1994: 36) go on to say that "... their (your children's) future depends on the ability to grasp new concepts, make new choices, and go on learning throughout life ... for those with the new knowledge: a world of opportunity ... new methods of learning are urgently needed ... but learning can only be effective if it enables each of us to link directly to the needs of the new age ... these 15 trends should dictate the shape of our new learning systems and methods ...".

It is beyond the scope of this dissertation to comment in detail on each of these, but the message is clear : education must change. Dryden and Vos (1994: 78) go on to list and discuss 13 steps to create "... the world's best education system ...", the most notable of these being:

- Re-think the role of electronic communications in education.
- Everyone is a computer expert.
- Catch-up programmes at every school.
- Define individual learning styles, and cater for each one.
- Learning how to think should be on everyone's agenda.

- Re-define what should be taught at school.
- A curriculum with self-esteem and life-skills training as key components.

Dryden and Vos do not actually mention OBE but a critical look at their seven points above will show that they are not too far removed from an OBE approach to education.

It is necessary that an instructional leader take note that society is changing and that new approaches in teaching strategies and classroom management are required. Technological advances have impacted on classrooms, and teaching strategies need to be geared to information age technology. Over the years the researcher has found that the advent of electronic media has meant that a higher level of educator training is needed to fully embrace these advances and to accept that they become a requisite and indispensable part of teaching.

2.3.3.2 The changing world scenario

Sunter (1998a: 65), a renowned scenario planner for the Anglo American Corporation, maintains that OBE seems eminently suited for the creation of a new entrepreneurial class that will have been taught how to think, how to be creative and how to solve problems. He draws parallels between South African school leavers and their American counterparts, contending that American youth have been taught coping skills that make them "... incredibly successful entrepreneurs ..." (Sunter 1998a: 66). Change is happening quickly and Peters (2000: 52) notes that it took 37 years for the radio to get to 50 million homes in the middle half of the 20th century. The World Wide Web took only four years. www.com is here to stay. He also contends that the world is going through a time of great fundamental change: quoting Baker, he says that it is the "... biggest change since cavemen began bartering ...". The explosion of information, information access and data processing has put the Information Age on the doorsteps of schools and we are forced to respond. The researcher has previously mentioned that the learners in schools are looking beyond the educator and the textbook for

stimulation and see the world of the Web as providing answers that the educator cannot. These learners need to be taught how to use this technology to both enhance their quality of life and to use it as a tool for learning. It is our duty as educators to prepare learners to fit into the changing technological society. Fitzpatrick (1991: 19), as early as the 1990s made this a priority as one of District 214's general exit outcomes. These learners will need to develop skills to critically analyse, select and sort data and the thinking among academic educationists is that OBE will provide the necessary vehicle (Brandt 1992: 66-70; Spady 1994a: 20; Dryden and Vos 1994: 37-77; Gibbons, Limoges, Schwartzman, Scott and Trow 1994: 23-25; Killen 1997: 26-27; Malan 1997: 11; Van der Horst and McDonald 1997: 217; Sunter 1998a: 65; Spady and Schlebusch 1999: 23; Taylor, Diphofa, Waghmarae, Vinjevold and Sedibe 1999: 27; Naicker 1999: 90; Chisholm 2000: 62).

Sunter (1997: 21) has put forward seven attributes that characterise world-class companies. The fourth of these attributes is an innovative spirit to cope with the perpetual transition caused by accelerating technological change. He humorously notes that " ... as the tempo quickens, the champions will be the dancers who keep in time with the new beat ... " and that " ... brain wave will replace brawn wave ... ". This involves a generation of creative, critical and independent thinkers. Sunter supports the idea that OBE can help to produce dancers who can keep up with the beat and give South Africa a chance of competing in international economics.

2.3.3.3 Application in real-world situations

Kraak (1999: 29), supported by Olivier (1998: 20), maintains the two pressures of globalisation and massification have impacted on education and training. Work organisation, technology and skill formation caused by globalisation have required that there be greater integration between education and training. School leavers, having been exposed to mainly academic subjects at school, are ill-equipped to fit into a society that is under the influence of modern

industrialisation. Kraak explains that the division between academic skills and technical skills has disappeared in this modern industrialised society and that workers now require higher levels of generic skills to cope with the rapid changes in technology and product markets that have emerged as a result of globalisation. Massification has created increased access of previously-disadvantaged communities to many areas and this concept also requires greater skills - life skills as well as thinking skills. Once again, an outcomes-based approach to educational programmes has the potential to develop these skills by creating opportunities within a normal school curriculum (NDE 1998e: 6,9).

2.3.3.4 Life skills

This is addressed in the Life Skills learning area of C2005. Spady (1994a: 28) and Spady and Schlebush (1999: 16) support Kraak's view that this complex, technologically dominated, multicultural, changing world demands far higher learning results from schools than they have ever produced. The world of the steady job and lifetime career seems to be over and has been replaced by the complex high-technology, competitive and unpredictable global market place. This demands adaptation, learning innovation and quality from its members. Brand (2000: 68) maintains that the newer technologies, computers, biotechnology and nanotech are self-accelerating technologies that require skills in managing the rate of change.

2.3.3.5 The need to change

The rate of change of the 'older technologies', like the telephone, motor car, television and jet air travel was relatively stable and manageable. Constant technological change is potentially dangerous in that it can cause divisions in society where only an elite can keep up; the rest are going to become increasingly mystified about how the world works. Schools are charged with the responsibility of creating learners who can manage change. Snyder, a futurist, quoted in Spady (1994a: 29) points out that what have traditionally been regarded

as 'unskilled' and 'semi-skilled' jobs, now require data manipulation and computer skills.

There is thus a need for an information-literate, technologically competent workforce that needs high levels of communication, collaborative, interpersonal and leadership skills - skills that are not being nurtured and fostered by the present Industrial Age model. Spady (1994a: 30) summarises the situation as follows: "... people who make their way successfully in this Information Age will have to be motivated, adaptable, and capable of continuous, self-directed, life-long learning and ... today's schools are being expected to ensure that these skills and orientations are developed in virtually all learners - a tall order for an institution designed a century ago to turn a percentage of its learners into literate, reliable workers for the Industrial Age ..."

Spady (1994a: 30) recognises that the Industrial Age model of schooling is out of step with today's trends. Quoting Peters and Waterman, he maintains that two key characteristics identify excellent global corporations. They are simultaneously tightly focused around organisational goals, purposes and ends, in other words, outcomes (the WHAT and WHETHER) and are loosely organised with regard to means, procedures and people's roles (the WHEN and HOW). Bureaucratic organisations (such as schools) have tight means, procedures, and roles, but loose goals, purposes and ends. The tight focus in schools is on the curriculum, time and teaching. What is loosely defined and variable are their ends, purposes and goals. In terms of learning outcomes specifically, the Industrial Age model emphasises the learning of specific curriculum content at specific times and achievement is judged according to how well learners do under these conditions. The Information Age, however, demands long-term sustainable performance and self-initiated continuous learning. Spady (1994a: 31) maintains that the traditional model of schooling operates as a self-contained system in that each of the elements of the system define the system and reinforce each other. He identifies ten components of the time-based, Industrial Age paradigm that maintain a negative impact on learner success. In contrast he proposes 10

alternatives that OBE offers to address the problem. He maintains that the collective contribution of these 10 components will dramatically expand both educators' and learners' opportunities for achieving genuine success (Spady 1994a: 31-40). These issues are now explained in more detail in the next section.

2.3.3.6 Ten Information-age components versus Industrial-age concepts

2.3.3.6.1 Outcome-defined (versus Calendar-defined)

Traditional educational practices are, according to experts like Spady (1994a: 3, 32), Killen (1997: 24) and Spady and Schlebusch (1999: 11, 35), dominated by the calendar. Learners have to study subject matter within prescribed periods, irrespective of whether they have mastered the content or not. A course ends when the time limit is reached and not when learners have demonstrated competence in the learning material. Almost every facet of schooling (instruction, attendance, learning, assessing, promotion) is governed by time. The only aspect that does not seem to have time constraints is sports practices - learners are requested to practice until skills are mastered. Those who demonstrate the skill best make the team; those who do not keep on trying haven't 'failed' but get many opportunities to try again. Capper and Jamison (1993: 429) further maintain that a time-dominated system is *input driven* rather than *outcomes-based* or *results oriented*. Spady (1994a: 36) offers this outcomes alternative that is focused and organised into exit or culminating outcomes. Everything at a school including curriculum design, instructional delivery, assessment and reporting is organised around these outcomes. They are 'top priority'.

2.3.3.6.2 Expanded opportunity (versus Constrained opportunity)

Time and calendar restraints in traditional education place strict limits on the duration of events in a learner's school career - everything must be done according to a schedule. Learners usually only get one chance at demonstrating that they have learned something (Spady 1994a: 31). Learning is thus limited.

The alternative is the expanded opportunity concept where everything (curriculum, instruction, assessment, reporting) is alterable, variable, flexible and responsive (Spady 1994a: 37). Opportunities for learning are expanded because they are not limited to years, weeks, days, hours or periods. OBE gives learners more than one opportunity to demonstrate competence (Spady 1994a: 12).

2.3.3.6.3 Performance Credentialling (versus Custodial Credentialling)

The amount of time learners spend in attending a course in traditional education has a direct relationship to the credit obtained. Learners need only to pass the course; this does not always reflect a learner's actual competence. Spady's (1994a: 33) OBE offers an alternative curriculum that is directly related to the culminating outcomes. Learners must demonstrate competence in all criteria required by an outcome before 'credentialling' or competence is awarded (Spady 1994a: 37). Time has no place in this type of learning. Good examples of this system are scout badges, sporting trophies, dance certificates, to mention a few.

2.3.3.6.4 Concept Integration (versus Content Segmentation)

Traditional education is characterised by individual subjects that are separate and clearly distinguishable from each other. These are further segmented into time blocks that correspond to school years or terms. There is little or no linking between subjects and all remain discrete in the school's reporting system with each mark remaining a permanent record, irrespective of what is remembered or forgotten (Spady 1994a: 33). The alternative offered by OBE is a curriculum directly aligned to culminating outcomes. These outcomes require learners to demonstrate higher order mental functioning and complex performance abilities such as synthesis, analysis and evaluation. Curricula therefore need to be designed to allow linking of content and concepts together to allow learners continual practice in linking and integration between subjects and across grades (Spady 1994a: 37-38). This has been done very successfully by C2005 by

creating the eight Learning Areas that integrate subjects and by developing Phase Organisers and Learning Programmes that link across Grades 7, 8 and 9.

2.3.3.6.5 Instructional Coaching (versus Curriculum Coverage)

The researcher maintains that an educator must not cover a syllabus; learners must discover the syllabus. In traditional education the educator is required to cover and complete a syllabus or parts of a syllabus within a certain time. The educator (and the learners) are always at a disadvantage in that this most often leads to surface coverage and superficial learning (Spady 1994a: 33). Instructional coaching is a better alternative. Educators coach learners to discover the content of a syllabus and encourage them to gain the highest quality of performance as professional coaches do in athletics, music and so forth. The educator is acting as a facilitator (see 2.3.4; 2.3.5.3.4.2; 4.7.4.2; 4.7.4.8.4) and requires learners to model and demonstrate successful techniques, use formative assessment (see 3.7.2; 3.7.4; 3.7.6.4; 4.7.4.2.3), to continually evaluate their performance and offer relevant feedback. They would be required to intervene in the learning process where necessary. This also allows the educator to monitor their own performance and adjust teaching strategies when necessary (see 4.7.4.1). Spady (1994a: 38) maintains that this approach represents 'effective teaching' at its best.

2.3.3.6.6 Culminating Achievement (versus Cumulative Achievement)

In traditional education, everything that learners do is converted into numbers and percentages and placed on the learners' records. These marks and percentages are then manipulated and averaged as if they represent equivalent things, which they do not. Learners who are slow starters will not achieve as well as others who are more competent, and because the marks are placed in a permanent record, it is held against them forever (Spady 1994a: 33-34).

In contrast, culminating achievements occur at the end of, or at the close of the learner's learning process and represent the demonstrable end results of a learning process. The focus is from 'during' to 'after' and from isolated discrete outcomes to culminating outcomes. The demonstration of the culminating outcome is the essence of OBE; it is not the average of the learner's achievements (Spady 1994a: 38).

2.3.3.6.7 Inclusionary Success (versus Selection Categories)

In traditional education learners are classified and selected according to their abilities. This is perhaps not so prevalent in the primary school, but in the secondary school learners who are not competent in (usually) Maths, Science, Accounting and Biology are relegated to a 'C' or 'D' stream for the duration of their secondary school careers. This leads to different streams of learning, achievement and opportunities (Spady 1994a: 34). The assumption is made that the learners in these streams are not able to learn complex content and skills and therefore need lower level challenges to go with their lower level abilities and learning rates. This guarantees that they will fall behind and leave school destined for different futures than the 'A'-stream learner. Since the early 1980s the Higher, Standard and Lower Grades with differentiated syllabi came into being.

This was an attempt by the Government to allow learners to remain in one stream for their secondary school career. If they found a subject difficult they chose to downgrade to the Standard or Lower levels and could remain in the same stream throughout. This was possible because the content of all grades remained the same; the summative examination paper questions were not as demanding and insightful for the Standard and Lower grade learners. This did not work, especially in Maths and Science, because it was felt that the Standard and Lower Grade learners held the Higher Grade learners back. Creative time-tabling on the part of the instructional leaders of the school solved the problem by being able to

separate the different grades into different streams, thus entrenching the selection process.

In the Further Education and Training phase of C2005 there is no differentiation of subjects into different grades. All learners will meet the criteria of the culminating outcomes on one level - the highest level. This naturally fits into the outcomes-based philosophy that educators want all of their learners to succeed. Spady (1994a: 39) maintains that by applying the four principles of OBE consistently, systematically and creatively (see 2.3.7), inclusionary success is possible. It therefore advocates no quotas; in other words, some must pass, some must fail, and it moves away from permanent groupings and bell-shaped thinking and practices (Spady 1994a: 39).

2.3.3.6.8 Co-operative Learning (versus Connective Learning)

According to Spady (1994a: 34) there exists in traditional education an unhealthy spirit of competition between educators and learners and between learners and learners. The basis for this competition is that only a limited number of learners are allowed to achieve high marks (as shown by a bell curve). This forces learners who are trying to do well to compete with each other for these marks. Collaboration in this learning environment would thus be seen to be unfair.

OBE is a system committed to having all of its learners succeed on clearly-defined performance standards. The instructional focus is therefore founded on ways to make this happen. There is a shift from traditional, normative-referenced standards (see 3.6; 3.7.8) to criterion-referenced standards and no one has to lose just because others succeed sooner. Collaboration and interaction is possible between learners and the dynamics of group learning lifts the performance of learners. Teamwork and collaboration is thus encouraged (Spady 1994a: 39).

2.3.3.6.9 Criterion Validation (versus Comparative Evaluation)

The assessment system in traditional education places heavy emphasis on comparing the results of learners and ranking learners in merit order. The comparisons focus on 'better than/worse than', 'higher than/lower than' and 'pass/fail'. When these are converted to marks and percentages and then manipulated, averaged and ranked, differences result. Small differences can exaggerate actual differences in learning and performance, but make selection categories easier to create and justify (Spady 1994a: 35).

OBE proposes criterion validation and authentic assessment (see 2.3.4; 2.3.5.2.2.2). Every outcome has a number of criteria that must be present in the performance before it is judged to be complete. Criteria are stated in clean, unambiguous language that leaves learners with no doubt as to what is required of them. Each of the Specific Outcomes of C2005 has a number of Assessment Criteria that have to be satisfied before learner performance is judged to be complete in that outcome.

Validation means that the criteria are being confirmed or verified rather than scored. What is important is being assessed - the criteria are measured against an external standard and there is no comparison with other learners. The assessment should take place in context and be assessed as such; this makes the assessment *authentic* (Spady 1994a: 40). If criteria stipulate that a violin player be assessed in front of an audience, he may not be assessed in a music room on his own.

2.3.3.6.10 Collaborative structure (versus Cellular structure)

Traditional education is characterised by what is called a cellular structure. Educators are physically isolated from each other and work to prescribed schedules on specific subjects that have few links with each other. There is usually little interference and while giving the impression of educator autonomy,

this actually exposes educators' weaknesses. Because they are on their own they have to be all things to all learners and this is not always possible (Spady 1994a: 35).

The culminating or exit outcomes defining an outcomes-based approach involve complex, high-level, high-quality demonstrations of competence that go far beyond the content and skills of individual learning programmes. These competencies take years to learn and refine and are not something that is learned overnight. For this to happen educators have to work together to complement each others' skills for the benefit of the learners (Spady 1994a: 40). This is especially true of C2005 where educators will not be teaching specific subjects, but will be teaching in Learning Areas. A Grade 8 Biology educator, for example, might have to teach a Science component and a History educator will probably have to teach Geography. These challenges are formidable, but can be solved through collaboration (see 4.7.4.2.1; 4.7.4.2.3). It is imperative that instructional leaders keep these issues in mind when planning C2005 implementation.

2.3.4 Differences between traditional education and an outcomes-based approach

For the purposes of clarity, it would be useful at this point to summarise briefly, in the form of a table, the differences between traditional education and an outcomes-based approach. These differences are radical and will be difficult, for the educators to implement. The researcher's experience has shown that learners, outside of the classroom, are being exposed to so many resources that the textbook becomes boring and they are looking beyond the educator to CD ROM, Internet and satellite television for excitement, stimulation and information (Spady and Schlebusch 1999: 19). Educators, however, are conservative in their approach to and acceptance of these new transformational technologies. The explosion of these advanced technologies offers, on one hand, the convenience and efficiency of instantaneous global communication and data access, but on the

other, a bombardment of irrelevant, sometimes obscene and often useless information.

Table 2.1 - Differences between traditional education and an outcomes-based approach

OLD	NEW
◦ passive learners	active learners
◦ exam-driven	learners assessed on an ongoing basis
◦ rote-learning	critical thinking, reasoning, reflection and action
◦ syllabus is content-based and broken down into subjects	an integration of knowledge; learning is relevant and connected to real-life situations
◦ textbook/worksheet bound and teacher-centred	learner-centred; teacher is facilitator; teacher constantly uses group work and teamwork to consolidate new approach
◦ sees syllabus as rigid and non-negotiable	learning programmes seen as guided that allow teachers to be innovative and creative in designing programmes
◦ teachers responsible for learning; motivation dependent on the personality of teacher	learners take responsibility for their learning; learners motivated by constant feedback and affirmation of their worth
◦ emphasis on what the teacher hopes to achieve	emphasis on outcomes (what the learner becomes and understands)
◦ content packed into rigid time-frames	flexible time-frames allow learners to work at their own pace
◦ curriculum development process is not open to public comment	comment and input from the wider community is encouraged

(Van der Horst and McDonald 1997: 27)

The educator is most often not trained either to use these technologies, or in most cases, does not have free and easy access to them. This then leads to an understandable reluctance to embrace them as teaching and learning resources. The researcher contends that this reluctance stems from the fact that the educator is used to being the source of (almost) all the information in his subject and it has become harder to filter the available information and to shield learners from the barrage of information to which they are exposed. Under these conditions it is not easy to see things from another perspective and a lot of soul searching will be necessary to make the necessary paradigm shift. This paradigm is, in essence, a shift from learning and teaching which is focused primarily on content, to learning and teaching focused on outcomes (Malan 1997: 1).

The table above shows that C2005 approaches to education require a great many changes that need to be made, not only on the part of both educators and learners, but also to the way in which instruction is managed.

The North West Department of Education (Vermeulen 1997: 30) describe the change in the curriculum as follows: "... a competence-based curriculum implies a new attitude to education where the emphasis is on **learning not teaching**, on demonstrating **competence, not cramming** for exams, where **competence and not partial knowledge is valued**, where the emphasis is on what learners are able to do, rather than what they cannot do. The system becomes outcomes-based or results-orientated rather than input-driven ...".

From the above definitions, OBE is seen as:

- outcomes-driven rather than input-driven.
- a break from content-driven, educator-centred methods.
- culminating demonstrations of learner competence.
- a change in curriculum formulation and implementation.
- a change in assessment strategies which will involve a change from norm-referenced testing to criterion-referenced testing and a means to test affective issues.

William Spady an American educationalist and a sociologist is largely responsible for the current popularity of OBE and his philosophy will be discussed in the next section of this chapter. Before this can be done however, it is necessary to outline briefly the philosophies of mastery learning and constructivism on which OBE was founded.

It is clear from the above that the traditional role of instructional leaders need to be redefined and this study will attempt to clarify certain issues regarding instructional leadership in a C2005 environment.

2.3.5 Basic foundations of OBE

2.3.5.1 Introduction

OBE is essentially an American concept and draws on the ideas of curricular theorists, psychologists, sociologists and philosophers. The origins of OBE are deeply embedded in the psychology and sociology of mastery learning and the philosophy of constructivism.

Due to the fact that the question of constructivism was raised on several occasions during the interview phase of this study it was felt necessary and important that the instructional leader, and thereby the teaching population as a whole, should be made aware of these underlying principles and philosophies.

The section starts by exploring the model of mastery learning as originally proposed by Carroll and then modified by Bloom, Block and Spady. It concludes with a discussion of constructivism, as outlined in the philosophies of Piaget, Vygotsky, Von Glasersfeld and Ernest. It was from these basic principles and philosophies that the concept of outcomes and OBE emerged and a totally new outlook and educational psychology was born.

2.3.5.2 Mastery Learning

2.3.5.2.1 Carroll's model of Mastery Learning

John Carroll proposed a model of school learning in the early 1960s in which it was proposed that each learner could master a given topic if enough time was provided for learning and if the facts were presented in a series of sequenced learning tasks, each consisting of a set of elements to be learned in a definite sequence over the space of a few hours and taught in a particular manner (Block and Anderson 1975: 16).

Block and Anderson (1975: 4) explain Carroll's work further in that, if learners are normally distributed with respect to aptitude for a subject, and all are given the same instruction, then achievement measured at the completion of the subject will be normally distributed. Under these conditions the correlation between aptitude measured at the beginning of the instruction and the achievement measured at the end of the instruction will be relatively high. Conversely, if learners are normally distributed with respect to aptitude, but the kind and quality of the instruction and learning time allowed are tailored to the individual needs of each learner, then the majority of learners will achieve mastery of the subject. Similarly, differences in learners' scores on a variety of test types were more dependent on the time they required to learn the work rather than on their innate abilities. Spady (1974: 96) adds that for the Carroll model to be successful it needs to have a strong developmental and instructional bias. Instruction based on the framework of Carroll would require bringing as many learners as possible to a socially useful level of performance in a given skill without imposing a time constraint. It can be seen from this that a quality instructional and evaluation approach will help to maximise the attainment of the standard. As an example, learners are given a typing standard of 60 words per minute. No time limit is given - the outcome is to be able to type 60 words per minute - whether it takes a term or a year is of no consequence - the learners pass when they have met the standard. John Carroll called this model of school learning mastery learning.

2.3.5.2.2 Mastery Learning as interpreted by Block and Bloom

In 1971 Block researched and put together the major ideas of mastery learning and at the same time Benjamin Bloom, a psychologist and behavioural scientist, was influenced by Carroll's thinking and after refining the model of school learning, worked out various procedures and strategies for achieving mastery in selected school subjects. Spady, (in Brandt 1992: 66) credits the inception of mastery learning to Bloom in 1968. Bloom introduced the strategy of feedback and corrective procedures at various stages in the learning process to maximise the attainment of performance standards (Bloom 1984: 5).

In designing his strategy of mastery learning, Bloom first determined what variables in the domain of the school were alterable with reference to the curriculum and instruction that would enhance effective learning and standards of excellence. He identified two key school variables, cognitive entry characteristics and quality instruction (Jones and Spady 1985: 12).

2.3.5.2.2.1 Cognitive entry and quality instruction

Cognitive entry characteristics refer to the knowledge and skills that are relevant and necessary to achieve the learning outcomes of a course. The learner's success and aptitude for a particular subject is, according to Bloom, alterable by effective teaching. Quality of instruction refers mainly to the instructional cues that are provided, reinforcement activities and behaviours, the extent of learner participation, and the diagnosis and correction of learning errors. Bloom's research on these variables shows that "... the quality of instruction accounts for 25 percent of the variance in determining the success of instruction, cognitive entry characteristics account for about 50 percent, and affective variables account for the remaining 25 percent ..." (Bloom, Madeus and Hastings 1981: 65-66).

Having determined these two key variables in organising instruction, Bloom designed the mastery learning philosophy of education focusing on the premise

that most learners can learn what they are taught given favourable teaching/learning conditions, which include:

- Informing learners of goals and objectives they are to reach.
- Providing cues to guide their learning.
- Encouraging the active participation of all learners.
- Providing incentives and reinforcements.
- Providing frequent feedback concerning errors and progress towards the goals and objectives.
- Providing supplementary instructional activities to help learners overcome poor initial learning. (Bloom: 1976 4-5; Jones and Spady 1985: 12)

The essential elements of mastery learning can be simplified to *teach, test, reteach (extend or remediate)*.

2.3.5.2.2 Procedure and strategy

Bloom's strategy for mastery learning begins by a educator formulating what he means by mastery in his subject. This will define the objectives and the performance standards required to meet them. The course is then broken up into a number of smaller sequenced units, that cover about two weeks worth of instruction. The material in one unit acts as a building block for the next unit. This has strong parallels with the discrete and enabling outcomes of Spady's OBE programmes (see 2.3.5.3). The educator then constructs formative tests which provide both the educator and the learner with necessary diagnostic feedback as to how much learning has taken place and the pupil's grasp of the instructional objectives. The educator will then prepare a set of correctives keyed to these formative tests. Alternative learning materials are prepared that reteach the unit's objectives, but do so in different ways to the educator's original method.

After a unit has been taught, the formative test is administered and the non-achieving learners identified. They then work on the correctives in their own time

until they have mastered the unit's objectives. Those learners who achieved the objectives are given an enrichment task to complete until the others 'catch up'. The correctives are usually done in the learner's own time, but extra class time can be set aside in certain circumstances. The educator only goes on to the next unit when all the learners have attained a satisfactory level of performance. Bloom's research (Bloom 1984: 9) indicates that the cost of this only usually increases class time by about 10 percent and out-of-class time by about 20 percent. This is encouraging news for those schools concerned about the OBE philosophy of giving learners enough time to meet outcomes. Bloom also discovered that time-on-task learning reduces as learners become more familiar with mastery learning techniques (Bloom 1984: 9).

The educator follows this cycle of teach/test/reteach (extend or remediate) on each unit until all units have been completed. A summative test is then administered which is designed to sum up a learner's achievement with respect to the overall objectives of the course. The learner's performance on this summative test is the sole determinant of the learner's grade. Criterion-referenced testing is applied and performance at or above the mastery level designated at the course's outset, earns the learner an A grade regardless of how many other learners gained As. Performance at lower levels earns learners lower grades, but once again his grade does not depend on how well he has done relative to his peers. Ideally, only a few learners should earn Bs and Cs and no learners Ds and Es. Once again, this has strong connections with OBE in which criterion-referenced testing is advocated and summative assessment techniques are used to determine learner competence in the overall outcome.

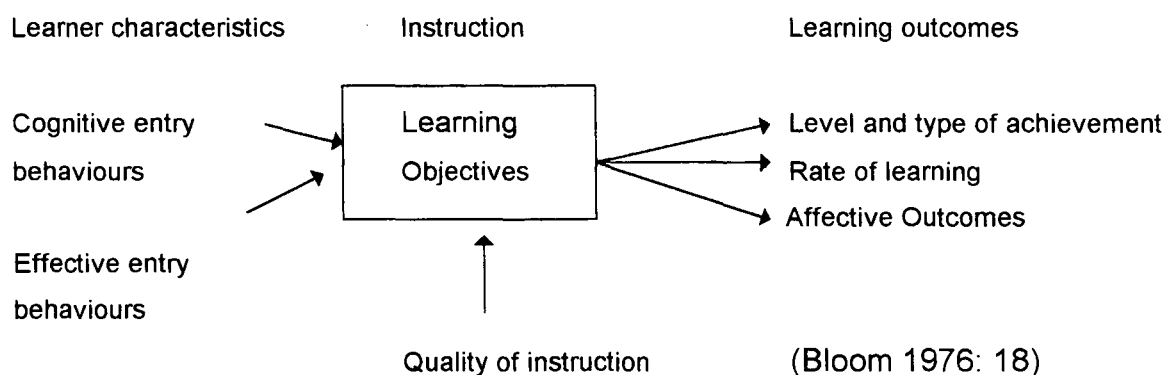
This model of mastery learning provides continual feedback and the correction of errors. This prevents a build-up of an accumulation of learning errors and prepares learners for the next section of work. This also has the effect of equalising the cognitive entry characteristics of each learner by preparing them for the learning programme.

Bloom then extended his research by studying successful young people in a variety of contexts as widely diverse as tennis, piano, chess and so on. He determined a set of characteristics that were common to these high achievers and found amongst others, instruction tailored to the individual, extensive practice, participation, reinforcement and immediate and constant correction of learning and performance, to be the most significant (Jones and Spady 1985: 13).

2.3.5.2.2.3 Bloom's model for instruction

As a result of this, what Bloom calls the two sigma problem, was designed as a model for instruction for whole group teaching (classes of between 20 and 70). The researcher feels it necessary to include these for two reasons. Firstly, they are essential to any learning situation and secondly, because mastery learning gave rise to OBE, they are seminal to any learning programmes where OBE is being implemented. Bloom's model is summarised below.

Diagram 2.1 Bloom's model



The six solutions to the two sigma problem are:

- Improve learner processing of conventional instruction.
- Improve instruction materials and educational technology.
- Improve the home environment to encourage good work habits, adequate stimulation and academic guidance, language development and academic goals.
- Control the peer group.

- Improve the quality of teaching to provide effective learning cues, more equal participation and reinforcement and the systematic diagnosis and correction of errors.
- Improve the teaching of higher mental processes (Bloom 1984: 4-18).

It is interesting to note that the much-researched and documented school district of Johnson City (Brandt 1994: 24-28) uses many of the above and, combined with a system of educator-learning and sophisticated learner grouping practices, has achieved remarkable results in using mastery learning techniques.

Vermeulen (1997: 12) traces the origins of OBE to a meeting of a group of behavioural scientists in Boston in 1948, from which emerged Bloom's well known taxonomy of educational objectives (Bloom 1979: 15-24). These men classified the outcomes of the education process, maintaining that educational objectives form the basis of curriculum development and assessment, and most educational research starts from this point.

Bloom's techniques and strategies of mastery learning are also based on the behavioural theories of B.F. Skinner whose ideas gained prominence in the 1950s. Skinner called his technique the 'teaching machine' and punished wrong answers and rewarded correct ones. The technique focuses on stimulus-response conditioning.

In essence, Bloom's strategies involve the assumption that:

- Most learners can attain a high level of learning capability if instruction is approached systematically.
- If learners are helped when and where they have learning difficulties.
- If they are given sufficient time to achieve mastery.
- If there are some clear criteria of what constitutes mastery.
- If learners were given clear objectives/outcomes.
- If there was a logical progression from the simple to the complex.

Once again we can see in Bloom's taxonomy, work ideas that are seminal to OBE. These include time as a variable resource, the definition of clear outcomes and a logical progression from the simple to the complex.

2.3.5.2.3 The influence of Block and Bloom on Spady

Bloom and Block worked from a psychological model of instruction and learning that focuses on the instructional function of the school.

Spady, essentially a sociologist, adds another dimension to the work of Block and Bloom by proposing that:

- Instruction does not occur in a social vacuum, but is defined by three relationships: firstly between the instructor and the individual learner; secondly between the instructor and the collectivity of the learners, and lastly among the learners themselves.
- Instruction is only one of the school's several functions (Spady 1974: 92).

Taken together these two points imply that the effectiveness of mastery learning as an instructional strategy has its roots not only in both learning theory and psychology, but also in the character of the social milieu in which mastery learning occurs and which it helps to create. One can also see that as early as 1974, Spady was reflecting on the strategies of mastery learning and eventually in the early 1980s, evolved them into his current philosophy of OBE.

It is interesting to note that at the inception of mastery learning and OBE, all its pioneer fathers and advocates worked together at the University of Chicago. Spady completed his Ph.D. at the University of Chicago in 1967 and whilst studying met Jim Block, who had just completed his Bachelor's degree at the same institution. Block, with a mathematical background, wished to do educational research and Spady introduced him to Bloom which resulted in Block becoming Bloom's graduate learner (Brandt 1992: 67). Spady is currently (2000) based in Colorado and is Director of the High Success Network and works with the Federal Government, States and School Districts, helping them to implement

OBE. Spady rejected the term 'Mastery Learning' because of its failure and did not want OBE to share the same fate. Whereas Bloom and Block (and Tyler) focused on learning objectives/outcomes to promote more effective teaching and learning, Spady argues that OBE could also be used as an appropriate and comprehensive tool for transforming an entire educational system.

It is evident from the above investigation that the theory of Mastery Learning had a powerful influence on the design of OBE. Whereas Carroll, Bloom and Block saw it as enhancing teaching and learning at classroom level, Spady saw it as having a wider impact in as far as it would change the entire education system accepted at that time.

2.3.5.3 The philosophy of Constructivism

2.3.5.3.1 Introduction

Another philosophy which has contributed to popularity and rise of an OBE instructional programme is constructivism (Donald, Lazarus and Lolwana 1997: 40-41; Gouws 1998a: 71-73). Constructivist theory views the learner as acting on objects within his environment and so gaining some understanding of the features held by the objects and events (Jonassen 1990: 32; Cooper 1993: 16; Von Glasersfeld 1995: 67; Magadla 1996: 83; Gruender 1996: 21). Piaget, an earlier pioneer of constructivism (Magadla 1996: 86), proposes that learners learn by doing rather than by observing. They bring prior knowledge into a learning situation and must reflect on this knowledge. A cycle of interpretation and reflection is repeated until they can demonstrate their comprehension of the subject. It is this repetition of practice and review that leads to the greatest retention of knowledge. Radical constructivism as championed by Von Glasersfeld contends that language cannot be a carrier of ideas, knowledge or information (Magadla 1996: 84). Social constructivism on the other hand, as championed by Vygotsky and Ernest, views as imperative the role of the individual, the role of language and the awareness that personal constructs occur

in a social context (Moll 1990: 3-7; Gallimore and Tharp 1990: 199-201; Hedegaard 1990: 367-370; Ernest 1991: 71; Deacon and Parker 1999: 67; Carvin 2000: 1). Social constructivism uses collaboration and peer criticism as a way of provoking learners to reach a new level of understanding (Carvin 2000: 1). Constructivism grew from the work of Piaget who was the first to produce a theory or model of how humans acquired knowledge (cognition) and how this developed (Magadla 1996: 86; Adams 1998: 43).

The next section will briefly explore the theories of Piaget, Von Glasersfeld, Vygotsky and Ernest since the theory of constructivism is a fundamental principle on which OBE is based and it is necessary to discuss constructivism to orientate the thinking of instructional leaders when developing staff professional training programmes.

2.3.5.3.2 Piaget's theories

Piaget, a Swiss psychologist and biologist, stressed a holistic approach to learning, maintaining that learners construct understanding through many channels such as reading, listening, exploring and experiencing the environment. Human cognition, which includes the processes of perceiving and thinking, does not remain constant throughout life. It develops gradually from birth through infancy, childhood and adolescence into adulthood. The cognitive development is partly a result of maturation according to a genetically-determined plan, and partly of what is learnt from life experiences. To Piaget knowledge is the *transformation of experience* by the individual, and not just the accumulation of knowledge. This development is more than the acquisition of more and more facts into the existing store of memory. It occurs because humans constantly strive to make sense of their world (Beard 1969: 2; Farmer and Farrell 1980: 49; Adams 1998: 35).

Piaget believed that human beings constantly use two processes in striving to understand the world. The first of these is the process of *organisation*. According

to him all humans are born with an innate tendency to organise their thinking into mental structures called *schemas*. These schemas are organised systems of actions and thoughts which enable humans to imagine and think about the world in which they live. In infancy, schemas are small and simple, for example, suckling at the mother's breast; in adults they become complex and abstract, for example, love, peace, democracy (Adams 1998: 36). Beard (1969: 3) maintains that these schemas are organised into wholes or patterns of behaviour that are frequently repeated and which can be recognised easily among other diverse and varying behaviours.

The second process is that of *adaptation*, which essentially means adjusting to the environment (Beard 1969: 3; Adams 1998: 36; Eggen and Kauchak 2001: 34-36). The instinctive responses of infancy allow a human infant to survive. The infant constantly meets new experiences and tries to make sense of these. The very simple mental schemas soon become inadequate for the ever-increasing complexity of the child's perception of the world. It is necessary then to constantly change the existing schemas; this constant change to the external environment is called adaptation (Beard 1969: 3-5; Adams 1998: 36).

2.3.5.3.2.1 Assimilation and Accommodation

Adaptation involves the twin processes of *assimilation* and *accommodation*. Assimilation takes place when new information fits in easily with what is already known. It occurs when the existing schemas are adequate and new information simply makes the schemas larger and more complex. On the other hand, accommodation takes place when there is a mismatch or conflict between existing schemas and the new information. Accommodation allows humans to solve problems arising from new experiences within the environment. Accommodation is an active process which displays itself in exploration, questioning, trial and error, making experiments or by reflection; combinations of schemas are tried out, or experiments are made, and information sought until the learner arrives at successful new schemas (De Wet, Du Plessis, Du Toit, Monteith and Van der

Walt sa: 22-23; Beard 1969: 4). Von Glasersfeld (1995: 67) calls this mismatch a perturbation.

To explain the above, individuals acquire knowledge from the outside world on the basis of interaction with the external world through incoming sensory stimuli and through direct actions. This new knowledge is tested against existing mental structures and is then assimilated. If the knowledge is not new, the individual doesn't react, but if the knowledge is new then assimilation takes place and the individual experiences perturbation. This causes a reaction of negative feedback, the individual is forced to cope with this new knowledge, equilibrium is attained and learning has taken place. The existing mental structure has been revised and adjusted by accommodation and by adding it to existing mental structures the individual has made the new knowledge his own. (Ernest 1991: 71; Von Glasersfeld 1995: 67).

Assimilation and accommodation are both required most of the time and take place together. The result is a delicate balancing act between assimilating incoming information into existing schemas and restructuring schemas to accommodate new information which does not easily fit in. This balance is known as *equilibration* (Beard 1969: 4-5; Adams 1998: 36).

2.3.5.3.2.2 Reflective abstraction

Piaget's work on constructivism is further based on the insight of reflective abstraction (Ernest 1991: 102-103). Reflective abstraction is the process of an individual actively thinking about incoming stimuli from the environment and then reflecting upon the outcome of certain patterns of behaviour that could result from the stimuli. Ernest (1991: 102), adds that reflective abstraction allows mental operations to become objects of thought in their own right, in other words, an individual will make these mental operations 'his own'.

In Piaget's theory the process of organisation and adaptation explained above are carried out by every human regardless of age. The content of thought does, however, differ with age. As a child gets older he or she develops more and more schemas, and these will become more elaborate and complex. According to Piaget, the structure of a child's schemas undergoes systematic change at particular points in development. In the very early years the schemas are based upon the child's senses and motor movements. Later schemas become more complex and can include abstract concepts, groups or categories. Later still, very complex schemas result in the ability to think about objects which are out of sight, and about past and future events (De Wet *et.al.* sa: 26-27; Beard 1969: 15-17; Farmer and Farrell 1980: 49-51; Driver 1983: 52-59; Collette and Chiapetta 1986: 543-545; Adams 1998: 36-37; Eggen and Kauchak 2001: 34-36).

2.3.5.3.2.3 Cognitive development and its educational implications

Piaget proposed four stages of cognitive development which reflect the changes in the type of schemas available as a child develops and the way these schemas are organised into cognitive structures. These phases are:-

- Sensory-motor stage - characterised by object permanence and goal-directed actions.
- Pre-operational stage - characterised by the acquisition of symbols and the ability to carry out mental operations.
- Concrete operations stage - characterised by mental operations and the mastering of the following aspects of reasoning - identity, compensation, reversibility, causality, classification and sensation.
- Formal operations - characterised by the ability to engage in mental trial and error; that is to say, making and testing hypotheses and complex learning involving abstract concepts and schemes. A large number of these variables interact with one another and a learner needs a system of regulating sets of possibilities as well as controlling the sequence in which these mental operations take place.

(De Wet *et al.* sa: 26-27; Beard 1969: 15-17; Farmer and Farrell 1980: 49-51; Driver 1983: 52-59; Collette and Chiapetta 1986: 543-545; Adams 1998: 36-37).

These stages are summarised in the following table:

Table 2.2 Piaget's Stages of Cognitive Development

Approximate age	Stage	Major Developments
Birth to 2 years	Sensorimotor	Infants use sensory and motor capabilities and gain understanding of their environments. Non-verbal, reflex actions: grasping, crying, play, imitation, object permanence.
2 to 7 years	Pre-operational	Children begin to use symbols. They respond to objects and events according to how they appear to be. Language development, egocentrism, irreversibility, centration.
7 to 11 years	Concrete operations	Children begin to think logically. Reversibility, seriation, classification, addition, subtraction, multiplication, division, conservation: number substance, area, weight and volume.
11 years and beyond	Formal operations	They begin to think about thinking. Thought is systematic and abstract. Combinatorial reasoning, proportional reasoning, identification and control of variables, hypothetical-deductive reasoning.

(Colette and Chiapetta 1986: 543)

Each of these stages has educational implications and Piaget urged educators to understand the developmental competence of learners so that they could both facilitate optimal intellectual growth and avoid trying to teach subject matter beyond the learner's age or attempting to accelerate cognitive development in

ways that are not possible (Collette and Chiapetta 1986: 542; Walkerdine 1988: 56). The practical implications of Piaget's stages of Cognitive Development are expanded on in section 4.7.4.2.3.

2.3.5.3.3 The radical constructivism of Ernst Von Glasersfeld

The radical constructivism theory of Von Glasersfeld is considered radical because it goes against the long established theories of behaviourist psychology which had been a strong force in determining learning methods and patterns for many decades. The central idea of radical constructivism is its controversial break with the notion that knowledge can never be considered as a true representation of an ontological reality that is observer independent. Knowledge of the experiential world which learners inhabit is nothing but the conceptual constructions of the knowing mind. In other words, we are the creators of the world we experience. Learners construct the world that fits in with their conceptual structures and they hold on to this world as long as it is viable for them. As soon as their interpretations do not fit in with their expectations, perturbations occur and learners have to effect conceptual accommodation. This accommodation and, hence, construction does not happen spontaneously, it occurs in a context which is determined by material conditions that are experienced by the individual (Von Glasersfeld 1995: 51, 57; Magadla 1996: 84). According to Von Glasersfeld language cannot be a carrier of ideas, knowledge or information - words cannot transport information from the speaker to the listener and meaning does not travel. The point here is that we can never be sure that what the listener understands is identical to the intended meaning of the speaker, so we cannot rely on language to transfer information or knowledge. The danger of this kind of thinking is that educators that use the transmission method of instruction, that is to say, lecturing or telling learners, feel threatened by the concept of constructivism. One of the roles of the instructional leader is to allay these fears (Magadla 1996: 84 - 85).

2.3.5.3.4 The philosophy of Vygotsky

Piaget viewed developing children as individuals - busy self-motivated explorers of their environments, who on their own, form ideas and test them against the world, and the last principle of Piaget, listed above, introduces the social constructivism theories of Vygotsky, a Russian psychologist and philosopher of the 1930s (Eggen and Kauchak 2001: 52). His theory emphasises the influence of cultural and social contexts in learning sciences and presents an argument for the need for learners to demonstrate their knowledge by creating explanations and interpreting work for others. Educators serve as mediators who should coach and encourage learners to formulate their own level of understanding. Each learner has a base level of knowledge which can be increased by practising what they know well and adding onto it. The social interaction between the learner, the educator and other learners reinforces their increase in knowledge (Moll 1990: 1-2; Carvin 2000: 1).

Vygotsky regarded education as central to cognitive development and essential to socialisation and inculturation and states that the "... unique form of co-operation between the child and the adult ... is the central element of the educational process ..." and this interactional process transfers knowledge to the child (Moll 1990: 2). Vygotsky emphasised the social context of thinking and, as a constructivist, recognises the learner's active participation in this thinking (Gallimore and Tharp 1990: 200-201).

Vygotsky maintained that constructivism is "... a view of learning and development that emphasises the active role of the learner in building understanding and making sense of the world ..." (Eggen and Kauchak 2001: 60). Compare the word '*active*' used by Vygotsky and the definition of OBE as supplied by Malcolm (see 5.7.4.3) where he describes OBE as '*activity learning*'.

2.3.5.3.4.1 The Zone of proximal development

From this constructivist perspective, Vygotsky proposed the concept of the zone of proximal development which is a holistic approach to teaching where "... we should be trying to instantiate a basic *activity* when teaching ... and not be blinded by the basic *skills* ..." (Moll 1990: 8). Vygotsky proposed partitioning of a whole into what he called units (Moll 1990: 6) which are dealt with as integrated parts of the whole.

The teaching of these units must be fostered and assessed through collaborative, not independent or isolated activities. Application of the zone of proximal development to the analysis of classroom instruction is the transfer of knowledge, and especially of skills by those knowing more (peers or educators) to those knowing less. Three characteristics of the zone are:

- Establishing a level of difficulty. This level, assumed to be the proximal level, must be a bit challenging for the learner, but not too difficult.
- Providing assisted performance. The adult provides guided practice to the learner with a clear sense of the goal or outcome of the learner's performance.
- Evaluating independent performance. The most logical outcome of a zone of proximal development is the learner performing independently.

(Moll 1990: 7; Eggen and Kauchak 2001: 57-59).

To work well the zone of proximal development in classroom teaching implies that the educator is aware of the developmental stages of the learners and is able to plan for qualitative changes in teaching towards a certain goal (Hedegaard 1990: 367). Although each child is unique, children obviously share common traits with other children. Instruction can build on these common features if it takes into account that the children vary in the speed and form of learning. In this way educators can work with the zone of proximal development as a relation between the planned instructional steps and the steps of the children's learning/acquisition process. Research by Hedegaard (1990: 369) showed that applying the concept of the zone of proximal development in class made a class function

as a whole through dialogue, group work and task solutions. The research differed from traditional instruction in that the children were deliberately and constantly forced to act, which method supports a constructivist and outcomes-based approach to instruction. The children's research activity was central in the guided actions, which gradually led the children to critical evaluation and concepts.

2.3.5.3.4.2 Vygotsky's Three Principle Assumptions

Vygotsky proposes three principle assumptions that need to be kept in mind when practising effective constructivist teaching. These are detailed below.

1. Making Meaning

- The community plays a central role.
- The people around the learner greatly affect the way he sees the world.

2. Tools for Cognitive Development.

- The type and quality of these tools determine the pattern and rate of development.
- The tools may include: important adults to the learner, culture and language.

3. The Zone of Proximal Development

- According to Vygotsky's theory, problem-solving skills of tasks can be placed in three categories. These are as follows: (a) those performed independently by the learner; (b) those that cannot be performed even with help; and (c) those that fall between the two extremes, the tasks that can be performed with help from others (Gouws 1998b: 81).

These principles have obvious implications for instruction. *Firstly*, the tools for cognitive development referred to by Vygotsky are the resources that are available to the learner, in other words, those he can muster from the school environment and those he has access to outside of the classroom. In order for cognitive development to take place, educators must provide an array of

resources that supplement their (the educator's) instruction delivery. Learners looking beyond the educator for stimulation, and the educator, in conjunction with the school's instructional leader, must address this need. The learner's cognitive framework must be constructed in as many ways as possible so that a large experiential store is available to deal with future perturbations. This is a measure of cognitive maturity or intelligence.

Secondly, the researcher maintains that learning and development is a social and collaborative activity that cannot be 'taught' to anyone. It is up to the learner to construct his own understanding in his own mind. It is during this process that the educator acts as a facilitator.

Thirdly, the zone of proximal development can be used to design appropriate situations during which the learner can be provided with the appropriate support for optimal learning.

Lastly, when providing appropriate situations, one must take into consideration that learning should take place in meaningful contexts, preferably in the context in which the knowledge is to be applied. Out of school experiences should be related to school experiences. Pictures, news clips, and personal stories incorporated into classroom activities provide the learner with a sense of oneness between their community life and learning.

Vygotsky claims that teaching is good only when it "... awakens and rouses to life those functions which are in a state of maturing which lie in the zone of proximal development ... " (Gallimore and Tharp 1990: 200). He has provided us with a guiding theory for constructivist teaching, summarised as follows:

- Teaching consists of assisted performance through the zone of proximal development. Thus teaching can be said to occur at that point in the zone where performance can be achieved with assistance.

- Educators, like their learners, have zones of proximal development; they too require assisted performance; as with learners, activity settings for educators must create opportunities in which they receive means of assistance.
- Activity settings are contexts for assisted performance opportunities created by the concentration of personnel present and their goals and tasks which guide interaction. This joint activity requires keen attention to the components of which they are constructed.
- Schools must construct activity settings that assist educators to truly teach: to adopt a role in which educators assist learners in the zone of proximal development.
- The purpose of schooling is teaching learners to be literate in the most general sense of the word - capable of reading, writing, speaking, computing, reasoning and manipulating visual as well as verbal symbols and concepts. Literacy is achieved through the creation of opportunities for learners to be assisted in the use of word meanings, conceptual structures - so that signs and symbols take on new and shared meanings.

(Gallimore and Tharp 1990: 200)

2.3.5.3.5 Ernest's theories

Ernest (1991: 71) maintains that social constructivism "... provides an account of the development of knowledge of the world of people and social interaction, and the acquisition of language ...".

Ernest, a mathematical philosopher, distinguishes between subjective knowledge (the personal creation of an individual); and objective knowledge (knowledge in the public domain). Social constructivism is unique as a philosophy in that it links objective and subjective knowledge in a creative cycle, each renewing each other (Ernest 1991: 43). Ernest argues that mathematics can be viewed as a social construction in that language and interpersonal social processes are required to internalise knowledge. Objective knowledge is understood to be social and is a product of the social and cultural environment. The learners who receive this knowledge are also part of a cultural and social structure that is going to affect

and modify how, and to what extent, this knowledge is assimilated and accommodated, in other words, it moves away from the strict, predictable input-output Skinnerian behaviourist views. The following section will provide an example.

2.3.5.3.5.1 Multi-cultural classrooms

The researcher has had many years of teaching experience in multicultural classrooms. The range of ethnic groups is comprised of English, Afrikaans, Sesotho, Portuguese and Greek learners. English is the teaching medium and is therefore the second (or sometimes the third) language of these diverse groups. Apart from the obvious linguistic difficulties experienced in the teaching-learning interaction in the classroom, additional difficulties exist because of the wide range of cultural backgrounds of the learners. What might be new knowledge (a stimulus) to one group, might not provoke a response in another because they have already assimilated and accommodated the knowledge. If the knowledge is new to all groups, the assimilation and accommodation processes are affected by the learners prior knowledge, socialisation and experience. This means that the expected outputs can differ since different social groups can give different meanings to similar inputs (Malcolm 1999: 80-81).

A specific example experienced by the researcher is the teaching of conservation, pollution and development to Grade 8 learners in the Natural Science learning area. To some groups, industrial and urban development is seen as vital to human progress, even if this is at the expense of the environment; to others, the environment is more important and they believe that there can be compromises in development.

Ernest (1991: 72) maintains that there are two key features of this process:

- The active construction of knowledge on the basis of experiences and previous knowledge; these provide a basis for understanding and serve the purpose of guiding future actions.

- The essential role played by experience and interaction with the physical and social worlds. This experience constitutes the intended use of knowledge and is where the full impact of human culture occurs.

2.3.5.3.5.2 Socio-economic differences

Capper and Jamison (1993: 433) and Evans and King (1994: 15) note that OBE, with its mastery learning/social constructivism origins, appears to work better in lower socio-economic districts and in elementary (primary) schools. The researcher would tentatively suggest that this is because the social and cultural differences between younger learners are not as marked as between older learners and they therefore do not inhibit learning as much.

The discussion above is an account of how learners acquire (construct) subjective knowledge. Language skills are built up during this process which also allows learners to communicate their constructed knowledge. This is constructed in a social milieu which involves co-operation and collaboration.

Quality classroom instruction and effective learning are therefore directly influenced by the process outlined above. Ernest (1991: 107) proposes that, for effective instruction to take place, educators should be aware of the history, sociology and psychology of each school subject. Although referring specifically to the philosophy of mathematics, the researcher feels that the global theory as advocated by Ernest is universal and can be extrapolated to all school subjects. If such an inter-disciplinary approach were to be adopted, the educator would have to understand the development of a subject in different cultures (History), the values, institutions and relationships within the society at large (Sociology) and how individuals learn, use and create the subject (Psychology).

2.3.5.3.6 Conclusion

In summary, Vygotsky, Von Glasersfeld and Ernest blended their theories with the work of Piaget and his school in developmental psychology, into the broad approach of constructivism. What these philosophers and psychologists share is a belief that the acquisition and development of knowledge by individuals involves the construction of mental structures (concepts and schemas), on the basis of experience and reflection, both on experience and on mental structures and operations. Many also accept that knowledge grows through the twin processes of assimilation and accommodation, first formulated by Piaget. Although they disagreed on some points, Piaget and Vygotsky were both constructivists in their orientation. Piaget is an individual constructivist, believing knowledge construction to be internal and individual. Vygotsky is a social constructivist, believing that knowledge originates in a social context and is shared with others (Gouws 1998a: 72-73).

Table 2.3 A comparison of Piaget's and Vygotsky's views of knowledge construction

	Piaget	Vygotsky
Basic question	How is new knowledge created in all cultures	How are the tools of knowledge transmitted in a specific culture?
Role of language	Aids in developing symbolic thought; it does not qualitatively raise the level of intellectual functioning. (The level of functioning is raised by action)	Is an essential mechanism for thinking, cultural transmission, and self-regulation. Qualitatively raises the level of intellectual functioning.
Social interaction	Provides a way to test and validate schemes	Provides an avenue for acquiring language and the cultural exchange of ideas.
View of learners	Active in manipulating objects and ideas	Active in social contexts and interactions.
Instructional implications	Design experiences to disrupt equilibrium	Provide scaffolding. Guide interaction

(Gouws 1998a: 71-73; Donald *et al.* 1997: 41-51)

The researcher feels that the theories of Piaget and Vygotsky synthesise the essential features of constructivism that are necessary for educators to know and for the purposes of clarity and information the researcher summarises their views in the above table.

Constructivism is a powerful idea. It helps educators apply Piaget's and Vygotsky's work to classroom learning and teaching. It suggests that educators provide experiences, guide discussions, and assume a supportive role in assisting learner's attempts at developing understanding (see 2.3.5.3.1; 2.3.5.3.2.3).

Teaching based on constructivist principles is demanding (see 4.7.4.2.3) and requires a great deal of expertise (Eggen and Kauchak 2001: 62). For instance, educators need to be alert and flexible enough to capitalise on learners' thoughts and insights as they surface during a lesson. Less alert educators might have missed opportunities to help their learners move through their zones of proximal development. Worse yet, less effective educators might ignore or even disapprove of learners' reactions. With effort and practice, however, educators can guide learner learning and help develop both the thinking and the deep understanding of content.

It can clearly be seen that an understanding of Mastery Learning and Constructivism naturally leads to a progression towards OBE. The logical steps between these philosophies and the newer theories of Spady are obvious and it is now possible to advance further into an investigation of the complexities of OBE.

It is necessary that the instructional leader be aware of mastery learning and constructivist principles. Instruction in a C2005 environment is learner-centred with the educator as facilitator and learners active participants in the teaching-learning interaction. Educators need to be trained to make a paradigm shift and adopt new teaching strategies. The role of the instructional leader is therefore to guide staff to do this.

2.3.6 The characteristic features of OBE

2.3.6.1 The definition and explanation of 'outcomes'

The understanding of outcomes is integral to a discussion of OBE. Before any attempt is made to outline the framework of outcomes-based education, it is necessary to define and explain what is meant by outcomes. Outcomes are the results that learners achieve which lead to culminating demonstrations of competence (Fitzpatrick 1991: 18; Brandt 1992: 66; Spady and Schlebusch 1999: 4; Sunday Times 23 January 2000). They are that which learners can actually do and are the crux of OBE learning. Spady, the architect of OBE and probably the first to define outcomes in their current context, defines outcomes as "... high-quality, culminating demonstrations of significant learning in context ..." Spady (1994b: 18). This definition will be explored in detail in section 2.3.6.2.

Examples of outcomes would be the balancing of a set of financial accounts, typing a set of minutes, the cultivation of an edible crop. Outcomes involve doing and demonstrating their acquisition. Formulating outcomes therefore requires the use of action verbs that state exactly what is required, rather than vague descriptors such as 'know', 'understand', 'believe'. Observable action verbs such as 'describe', 'explain', 'draw' are used and leave learners in no doubt as to what is being required of them, or what needs to be done to achieve the outcomes. Without the use of these action verbs the outcomes statement will lack a clearly-defined demonstration process and will then merely be called a goal. Spady (1994a: 50) is emphatic that we avoid 'outcome aliases' like attitudes, feelings, aptitudes, objectives, assignments, grades, values, beliefs, goals, activities, scores and averages with real outcomes. These 'outcome aliases' are not measurable and are thus not clear demonstrations of learner learning. These, in old parlance, would have been called aims or objectives. When such aims and objectives are realised at the end of a learning programme, the end product is an outcomes (Van der Horst and McDonald 1997: 8). Killen (1997: 26) maintains that these aims and objectives describe the intent of some educational process. If

these intents are realised, the end product of the educational process can be referred to as an educational outcome. Killen further maintains that it is the link between intentions and results that is at the heart of OBE.

What this means is that the satisfactory demonstration of an outcome is the tangible evidence that the intentions of the educational programme have been satisfied. Statements of intent or statements of desired educational outcomes focus attention on the purpose of instruction rather than on the content or learning experiences that are the vehicles for instruction. In other words, the outcomes are the priority, the content is merely the vehicle to get at the broader outcomes. Van der Horst and McDonald (1997: 43) and Brandt (1994: 28) contend that a sound content base is required for activities to be educationally significant.

2.3.6.1.1 Problem areas

This is perhaps one of the major problem areas in the implementation of C2005: educators, not fully aware, of the underlying philosophy of OBE and the priority of the critical outcomes and specific outcomes, found it difficult to understand why so little was offered in official policy documents on content or methodology. The paradigm shift was not easy to make with such little information available at the time of the announcement of change.

It is generally accepted that the content of the Learning Areas of C2005 was not sufficiently detailed and was cause for great concern, especially among Maths and Science educators. Their concerns revolved around dropping standards and the lack of vertical knowledge in their subjects where continuous practice and sequential, linear knowledge is required. C2005 details seven critical outcomes that override all Learning Areas and sixty-six subject-related specific outcomes in which learners are expected to demonstrate competence.

Spady (1994a: 56-57) contends that two quite different paradigms of learning are found in the field of modern education. These are the psychological, the mental

processing that goes on in the mind and the sociological in which learning is viewed as the ability to translate mental processing into actions that occur in real social settings. The ability to apply this mental processing through the use of action verbs and demonstrable actions are the real outcomes of education and correspond to Spady's definition of an outcome in its purist sense. These outcomes are the forms of learning that learners do and demonstrate and what is assessed. As will be explained later (see 2.3.9; 3.3.3), the use of non-action and non-demonstration verbs in selecting and defining outcomes can cause problems in OBE implementation due to differing interpretation of non-demonstration verbs.

2.3.6.1.2 Examples of outcomes

Instruction or education based on outcomes is nothing new. The ideas have been embodied for centuries and examples include the craft guilds of the Middle Ages and apprenticeship training in the skilled trades. The guilds of the Middle Ages go back some 500 years and were the start of modern apprenticeship training where training and guidance was given to an apprentice under the care of a mentor or master craftsman. Time plays little part in the training, it is not calendar-based and the shift of emphasis is rather to accomplishments. The outcome, purpose or result of the process is that the apprentice is expected to master the craft; time is subordinate. More modern examples of outcomes-based models include any learning where demonstrable competence and performance are of paramount importance, for example Boy Scout or Girl Guide competence badges, flight school, computer programming and the performance credentialling of doctors, nurses, lawyers and educators. As with technical apprenticeship, time is not important; what is important is the demonstrable achievement of the outcome. Spady (1994a: 4) contends that if time and accomplishments don't mesh, then the term 'outcomes-based' directly implies that outcomes must take precedence over time. All these examples share two things. Firstly, each example has a clear outcome that is based on a high quality performance and secondly the WHAT (outcome) and WHETHER of learning is more important than the WHEN and HOW. In other words, successful learning results are more

important than the time taken or the methods used. In the school or classroom context what this means is that learners need to be given a clear picture of:

- What they are expected to achieve.
- What standard of competence they need to demonstrate.
- What they need to do to develop the skills to achieve competence.
- How they are going to be assessed.

The researcher's experience has shown that if learners have these criteria in mind while being taught they focus more clearly on the necessary learning and achieve the specified outcomes more competently, in other words, they know at the outset what they are expected to do and how they are to be assessed.

2.3.6.2 An analysis of Spady's definition of an outcome

Spady defines outcomes as "... high-quality, culminating demonstrations of significant learning in context ...". To fully understand Spady's meaning of the word 'outcome', it is necessary to analyse his definition by explaining what is meant by each of the terms he uses.

2.3.6.2.1 High Quality

Looking at Spady's definition more carefully we see that he uses the words *high-quality*; the implication is that the demonstration must at least be complete and carried out satisfactorily. A demonstration that does not meet these criteria will not be worthy of accreditation.

2.3.6.2.2 Culminating

The stipulation that the demonstration be *culminating* means that it occurs at the end of, and not during, a learner's learning experience. They are not collections or averages of work or experience that have been done or gleaned along the way;

they are " ... what learners can actually do with what they know and understand ..." (Spady 1994a: 49).

The term *exit outcome* is used in this context because the demonstration comes at the close of a learner's academic career. Credits given for these outcomes are going to result in graduation or promotion for a learner. Many educators were concerned that most of the content learnt in schools today does not remain with a learner through to his Matric Final exams, let alone beyond it, and the question asked was 'will learning this make a difference in the long run?'. This concept is important and separates short-term content learning from the development of internalised performance abilities. Learners will take the latter away with them when they leave school and these abilities are the result of the total education process and are not the result of a small section of work and Spady (1994a: 52), because of this distinction, came to the conclusion that there were three common-sense principles inherent in outcomes-based approaches to education. They are:

- The closer a demonstration occurs near the end of a learning programme, the more likely it is that it will carry over into other experiences - especially if the learners have time to practice.
- It is important that learners take something with them after graduation day. The exit point is the time to make sure it's there.
- Learners must have the opportunity to practice extensively during school what they are going to take out of the door with them.

Culminating outcomes are thus important and are the tangible results of learner achievement. They are arrived at by working through a process of *enabling outcomes* which are seen as building blocks and are used as a series of small, incremental steps used to achieve the ultimate, culminating outcome. Learners will show competence and build up confidence in the enabling outcomes on the way to achieving the culminating outcome. Spady recognises another category of outcome, a *discrete outcome*. This is an outcome that could be removed from the curriculum without affecting the quality of learning. It is something nice to know,

but irrelevant. This will be expanded on in section 2.3.6.2.3.1, when the 'design down' concept of curriculum planning is discussed.

2.3.6.2.3 Significant

Spady (1994a: 50) also makes mention that *outcomes must be significant*. These are the outcomes that really matter at the end of a learning experience and are the "internalised performance abilities" (Spady 1994a: 50; Spady 1994b: 18) that learners will take away with them, as opposed to short-term learning content. They are linked to culminating outcomes in the sense that culminating outcomes should be significant. Killen (1997: 28) uses the words 'important' and 'worthwhile' to describe these significant outcomes, since there is no point in helping learners to achieve outcomes that are worthless. Van der Horst and McDonald (1997: 43) support this view by saying that outcomes must be significant in the sense that they are necessary and meaningful. These outcomes should be specified in such a way that they enhance and foster the outcomes of specific subjects.

Killen (1997: 28) and Spady and Schlebusch (1999: 39) maintain that these are the demonstrations of learning and are complex performance abilities that outlast formal education and empower individuals in their adult lives.

The term *significant* began to be used in the mid-1980s when educators began to realise that many outcomes pursued in those days were really only being performed at micro-level, in other words, the skills and knowledge that were being learned were of little consequence once the work was finished and the educator had recorded the mark. A typical example of this is the rote-learning of factual information such as names and dates. This information represents small sections of the curriculum and is very quickly forgotten. This is not to say, however, that this work does not matter in the long run, it simply means that when OBE curricula are designed, irrelevant, isolated facts must be omitted.

There has been a shift away from these micro-level skills and simple curriculum-focused segments of learning to much more complex and comprehensive learning experiences and outcomes of significance focused on life roles, which Spady calls *role performances* (Spady 1994b: 18).

Outcomes of significance must be carefully designed so that the learning experiences create opportunities to practice and develop the performance abilities and the content that are necessary for learners' future life roles and survival outside the school. Spady (1994a: 52) explains that this raises two key issues, which follow:

2.3.6.2.3.1 From discrete to culminating outcomes

Firstly, it highlights the importance of OBE's 'golden rules' of curriculum design, in other words, design down and replace the discrete outcomes that are not enabling outcomes for the culminating outcomes. It is important for those implementing OBE to begin with the most significant culminating outcomes possible, such as complex communication abilities and research and planning abilities, and then to design the curriculum backwards from there. It is important that learners have sufficient experience throughout their schooling with both the increasingly complex forms of culminating outcomes and the enabling outcomes on which they depend (cf. Fitzpatrick's levels of performance in District 214 1991: 22-24). Discrete outcomes (irrelevant material, isolated facts), must be eliminated.

2.3.6.2.3.2 Progressive evaluation

Secondly, it raises the issue of allocating grades or marks. Usually, learner outcomes are expressed as marks or averages of marks. These are placed permanently in the learner's record. This accumulation of marks over time is an actual record of outcomes (discrete or enabling) that happens before the end or

exit-outcomes occur! Spady (1994a: 53) maintains that this is unacceptable; culminating outcomes occur after all grading and averaging is finished.

In essence this means that the real 'test' of learner learning and achievement is how well they do things after they have had multiple opportunities to practice and improve, in other words, the second chance system (or third and fourth if necessary). Practice does eventually make perfect. The researcher is involved in the area of Technology and Computer Literacy. Many learners are unable to grasp some of the concepts the first time around. They need to practice and then be taught again. They then practice again and again until they reach a satisfactory level of competence. As an example, the Grade 8 learners at the researcher's school are taught to use the Microsoft Spreadsheet, Excel. Most of the learners use it in its most basic form which means that they add columns of figures, work out averages and rank data in ascending or descending order. A few learners are able to work Excel at a more sophisticated level by using it to convert marks to percentages or different totals, create 'what if' scenarios and merge the spreadsheet with a word processing document.

Competence in the outcome (using the spreadsheet to add columns, average and rank data) is usually achieved by all learners at the end of Grade 8. All pass the course because they have had ample time and opportunity to practice. It would be educationally indefensible in this instance to teach them how to use the spreadsheet, let them practise once and then write an 'exam' on this, have some fail, record the mark and then move on to new work. What the learners do the first time is not an indication of what they will ultimately be able to do. The culminating outcomes become more complex for Grades 9 and 10 and learners are required to demonstrate their use (the outcome) of Excel at increasing levels of complexity.

Outcomes of significance then are outcomes that need to be "... things that really matter to learners in the long run", they are the ultimate results of learning (Spady

1994a: 51). If outcomes are worth pursuing and accomplishing, they should embody things that:

- learners would remember and be able to do long after a particular curriculum episode ended.
- are truly important to learners in their educational and life-career futures.

Therefore, Spady's outcomes fall into three broad categories:

- Culminating outcomes, also called exit outcomes in fully developed systems (the tangible results of learner learning; they must be significant; occur at the end of the learning process; embody exit outcomes)
- Enabling outcomes (key building blocks; truly essential to learners' ultimate performance success)
- Discrete outcomes (useful to know, but not really necessary)

These outcomes are used in the design down or mapping back concept of curriculum design which will be discussed in section 2.3.6.2.3.1 and 2.3.7, and are used to form the basic structure of the demonstration mountain that explains the three models of OBE.

It is imperative from what has been discussed above that implementers of any OBE-based programmes look very carefully at the formulation and identification of clear and unambiguous outcomes. Outcomes should be carefully chosen so that they will allow learners opportunities to engage in "...stimulating, challenging, in-depth encounters with high-level knowledge and skills.." (Spady 1994a: 53). This applies especially to complex communication, research planning abilities, numerical literacy and problem-solving. In terms of notional (contact) time, it is recommended by the Senior Grade policy document that languages and maths are allocated up to 25% of the time (NDE: 1997d: 13). These areas have formed the main focus point of many of the Specific Outcomes of C2005.

For outcomes to be successful and accepted by all sectors of the wider school community, they should relate to community issues and it is therefore important

that all sectors of the community and educational stakeholders be consulted in the formulation of outcomes. This is necessary to promote ownership and to empower the community. This was successfully done in the two examples of outcomes-based programmes quoted below.

2.3.6.2.4 In context

The *in context* part of the definition is very important and refers to the setting under which the outcome must be demonstrated. Spady and Schlebusch (1999: 47) maintain that when a performance is defined, the setting must also be specified. Any outcome of significance requires that "real world" conditions must be specified and that these conditions be built into the curriculum and assessment procedures. As mentioned earlier in this section, the learners must be aware of all the criteria **before** a section of work is started. As an example, a Home Economics learner preparing a three-course meal in a laboratory is not experiencing the same context as preparing a three-course meal in a busy restaurant kitchen. If the learner is expected to produce a three-course meal in a busy kitchen, then she needs to practice preparing the meal under these 'performance conditions'. Again, if a musician is required to demonstrate competence by playing in front of live audiences, then the opportunity for practising in front of live audiences must be built into the curriculum, in other words, real life experience must be practised.

Assessment in a C2005 environment is to be authentic as far as possible (see 3.7.3). Learners are given criteria in an open transparent way by which they can assess their performance during the task at hand. This approach to assessment is new for educators and is possibly one of the most difficult aspects to come to terms with. The aim of instructional leadership is to guide staff in this new method of assessment and ensure them that it is not a threat.

2.3.7 The principle of backward mapping

The 'based' part of outcomes-based refers to the second of the four principles, in other words, that of backward mapping. This means that educators must begin curriculum planning with the end in mind - the outcome. These outcomes should ideally be set in conjunction with learners and the community. Once these have been decided upon, the curriculum is designed back from there. It is not possible to start with an existing curriculum - this is against the spirit of OBE in its purist sense. Doing this is the OBE model in its most simplistic form - Traditional OBE. This presents challenges since difficult curriculum decisions will have to be made. The first challenge is for staff to determine enabling outcomes that will allow learners to reach the culminating outcome. This is the technical aspect of the design-down principle, in other words, what content and procedures are to be selected. This demands thorough subject knowledge on the part of the staff and also demands a thorough knowledge of different and varied instructional strategies. The second challenge is an emotional one, in that staff will need to eliminate familiar, favourite, but unnecessary curriculum details.

A requirement of transformational OBE (our South African model) is that a new curriculum must be designed (NDE 1998e: 17-10). Spady and Schlebusch (1999: 32) contend that backward mapping assures that:

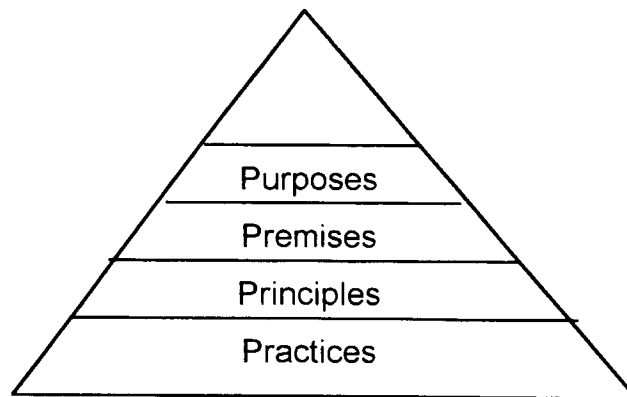
- Learners will have a clear path in getting to the ultimate - critical outcomes.
- The curriculum will focus on what is essential for getting there.

2.3.8 The OBE Pyramid

It is now necessary to investigate the OBE pyramid to give a clearer picture of an OBE approach. Instructional leaders would need to have a thorough background of the pyramid to successfully implement educator training programmes. The pyramid suggests that there is an overriding, operating paradigm that is composed of four principle elements which are built in steps from each preceding element, and which lead to the whole paradigm shift which man is going to have

to make to cope with our changing society. These elements are: the two purposes, the three premises, the four principles and the five practices. The paradigm is extended by having ten characteristics that shape how schools actually have to operate. These four elements and ten characteristics will now be discussed.

Diagram 2.2 The OBE Pyramid



(Spady 1994a: 8)

2.3.8.1 The two purposes of OBE

- To ensure that all learners are equipped with the knowledge, competence and qualities needed to be successful after they exit the education system.
- To structure and operate schools so that those outcomes can be achieved and maximised for all learners.

This means that there must be a future focus on what learners need to know when they leave school and schools must be organised accordingly.

2.3.8.2 The three premises of OBE

The two purposes described above are based on three assumptions or premises. These are, firstly, that all learners can learn and succeed, but not necessarily on the same day in the same way. Secondly, successful learning promotes even more successful learning and thirdly, schools control the conditions that directly affect successful school learning. These three premises are the rationale on

which the implementation of OBE actually rests and they are guided by the four principles of OBE.

As OBE was developed and implemented Spady, with Schlebusch as a co-researcher (1999: 29), realised that these three basic premises had to be expanded into six statements or key beliefs about learners' learning and success which guide OBE efforts. These are listed below:

- What and whether learners learn successfully is more important than exactly when, how, and from whom they learn it.
- Schools exist to ensure that all their learners are equipped with the knowledge, competence and qualities needed to be successful after they exit the education system.
- Schools should be organised, structured, and operated so that all their learners can achieve these life performance outcomes.
- All learners can learn and succeed, but not on the same day in the same way.
- Successful learning promotes more successful learning, just as poor learning fosters more poor learning.
- Schools control key conditions and opportunities that directly affect successful school learning (Spady and Schlebusch 1999: 29).

It would seem that Spady has refined and simplified the wordy explanations of his theories over the years and these six statements seem to summarise his fundamental ideas about learning and success.

To Spady's original three premises Mammary (in Killen 1997: 2) adds a philosophical viewpoint that has implications for schools adopting an outcomes-based approach the elements of which are listed as follows:

- All learners have talent and it is the job of the school to develop it.
- The role of the school is to find ways for learners to succeed, rather than to find ways for learners to fail.

- Mutual trust drives all good outcomes-based schools.
- Excellence is for every child and not just a few.
- By preparing learners every day for success the next day, the need for motivation will be reduced.
- Learners should be collaborative in learning rather than in competition with each other.
- As far as possible, no child should be excluded from any learning activity.
- A positive attitude is essential. (If you believe that you can get every learner to learn well then they will).

The researcher has found from experience that Mammery's ideas have significant relevance which instructional leaders should take note of. The researcher feels that these philosophical elements are part of the spirit in which OBE is adopted in South Africa.

Within the framework of Spady and Schlebusch's six statements or key beliefs and Mammery's philosophical base, Killen suggests that an outcomes-based approach can be developed around eight principles that guide design, delivery, documentation and decision-making. These are:

- The outcomes-based programme must have a clear focus on significant learning outcomes.
- These outcomes should be practical, useful and morally and ethically defensible.
- Curriculum and instructional design are derived from these significant outcomes.
- The outcomes are challenging and all learners are expected to achieve them at high performance levels.
- Time is used as a flexible resource that allows educators to accommodate differences in learner learning rates and aptitudes.
- Learners are given more than one uniform, routine chance to receive instruction and to demonstrate their learning.

- Assessment is an integral part of instruction.
- Learners are expected to take responsibility for their learning.

(Killen 1997: 3)

The researcher has found from experience that Mammery's ideas have significant relevance which instructional leaders should take note of. The researcher feels that these philosophical elements are part of the spirit in which OBE is adopted in South Africa.

Killen is therefore re-stating the issues raised in the section on outcomes; in other words, outcomes are the priority, the curriculum is designed back from them and assessment is an integral part of the instructional programme.

The researcher has found that the ideas of Spady, Spady and Schlebusch, Mammery and Killen are relevant and can be practically and effectively applied in the implementation of an outcomes-based approach. South Africa schools are using the above ideas in an OBE context as they are providing opportunities for learners to succeed, and the newer assessment procedures allow the to demonstrate competence in many different ways. Learners are also being taught skills that can be transferred from the classroom to society.

The lack of transferability was a major concern of Spady (1994b: 18) and is addressed in Spady and Schlebusch's six key beliefs as well as Mammery and Killen's philosophies. These researchers state clearly that an OBE approach must have a clear set of learning outcomes around which all of the system's components can be focused. They also establish the conditions and opportunities within the system that enable and encourage all learners to achieve these outcomes (Killen 1997: 2-3; Spady 1994a: 2). The critical and specific outcomes of curriculum 2005 are clear statements of what learners are expected to be able to achieve (see section 3.6.4.1; 3.6.4.2).

2.3.8.3 The four principles of OBE

If an OBE plan is implemented in any school or district, the two purposes and the three premises need to be underpinned by Spady's four principles of OBE implementation. These are fundamental to any programme and are seen as:

- Clarity of Focus.
- Expanded Opportunity.
- High Expectations.
- Design Down.

Each of these will be discussed briefly.

2.3.8.3.1 Clarity of focus

This is the most important of the four principles. Firstly, educators need to have a clear idea of what they want learners to achieve and must explain fully what type of demonstration is required to meet the outcome. Secondly, the success of the learners is the educator's top priority and all instructional activities are geared and focused towards this end. Thirdly, all assessment procedures must be open and transparent and the learners must have a clear idea of what criteria are required to meet the outcome. Lastly, the educator must himself demonstrate competence by showing the learners what is expected of them. On-going demonstrations by the educator are required. The educator and learners work together as a team to meet the outcome.

The researcher agrees with Spady. Learners need to be told exactly what to do and need to be shown how to do it. What the educator shows the learners must not be a once-off demonstration, but needs to be continually repeated. This 'showing' or 'demonstration' does not necessarily mean the presentation of a psychomotor skill; it can be achieved by showing learners how to scan poetry, solve an algebraic problem or simply how to answer examination questions. It goes without saying therefore that the educator needs to be competent and skilled at what he is doing. This is not always the case. Educators who are not

properly trained or do not have a solid knowledge base are known to hide behind the textbook when teaching. This will not be possible in C2005 where discrete subject matter has become blurred and the boundaries between subjects overlap. It will be difficult to take a lesson from an existing textbook that will exactly meet the requirements of a particular learning programme. A new mind-set (paradigm) is required to meet these challenges (Sunter 1998a: 63). The researcher, who has attended many courses on OBE and is involved in staff training for OBE implementation, has concluded that staff concerns and resistance emanates from the uncertainty of not knowing where to find the content for their lessons in the learning programmes. The clarity of focus principle has wide implications in that it might serve to 'show up' educators who are not competent enough to demonstrate outcomes to learners. Another grave concern of educators that will be discussed later is how to assess the outcomes.

2.3.8.3.2 Expanded opportunity

What this principle means is that learners must be allowed more than one opportunity to learn work and demonstrate competence. Time-based, traditional educational systems do not allow for varying learner learning rates and usually require a once-off demonstration of competence. Spady lists five dimensions of opportunity. These are:

- Time.
- Methods.
- Operational Principles.
- Performance Standards.
- Curriculum Access and Structuring.

2.3.8.3.2.1 Time

In traditional education, the entire system is based on the calendar. Time is the key factor and controls all activities. The year is usually divided into terms, each having an amount of work from the syllabus that must be taught, learned and

examined. There is usually a rush to complete this work and there is little time for revision and practice (see section above on clarity of focus). Preparation and completion of work for the all-consuming end of term evaluation is the priority. Quality teaching and learning is most often compromised.

The situation in Grades 9 and 12 in the researcher's province has become more complex in recent years with the Education Department demanding that schools write 'common examinations' to enable previously disadvantaged schools to be exposed to and write examinations of a suitable standard. They are set by experienced educators, duplicated, delivered to schools and memoranda are supplied. This is all very well, but puts a tremendous strain on school teaching and administration in terms of work that needs to be covered for the common examination, and exam time-tabling. These exams are working against learners and their quality learning. Lubisi *et al.* (1997: 13) even go so far as to suggest that "... educators are more interested in testing students than teaching them ...". This is indeed an indictment of our education system.

Spady's OBE system proposes an alternative. Education can not be based on the calendar if it is to be based on outcomes; the system gives priority to ends, purposes, learning accomplishments and results (Spady 1994a: 3). Time and the syllabus are less important than learners' achievements and demonstrations of competence, in other words, successful learning outcomes. Spady maintains (p.13) that learners must be given sufficient classroom learning time to complete a task and meet its outcomes.

2.3.8.3.2.2 Methods

The methods used to expand learners' opportunities should not be constrained by time or schedules. Different methods should be used to present content and skills to learners. It has for some time now been recognised that there is more to intelligence than just the traditional verbal / non-verbal scale. Gardner (in Dryden and Vos 1994: 117-119), maintains that there are seven intelligences - or seven

dimensions of mental functioning and talent inherent in all people), that is to say, linguistic, logical-mathematical, spatial, musical, bodily-kinaesthetic, interpersonal; and intrapersonal. Each of these intelligences needs a variety of different sensory stimuli to enable perception (observation) to occur. A learner gifted in the musical dimension might not be as quick spatially, and a perceptive educator will change the way in which this dimension is taught to the learner by varying the sensory input. Each subject has to be learned according to its nature and structure and learners need to master both the substantive and syntactical components of the subjects that they are taught. Van Aswegan, Fraser, Nortje, Slabbert and Kaske, (1993: 24-26) propose a model of learning excellence that encourages educators to explore all senses - looking, hearing, touching, tasting and smelling when presenting to learners what they term impressions from the outside. Avenant (1990: 5-7) maintains that learning cannot take place without sensation and perception (observation) - the more senses that are stimulated the better the ability of the learner to take the next step in the learning process and form a concept. This maximises opportunities for learners to understand and make sense of what they are learning.

Educators should be aware that different learners learn in different ways and that varying the sensory input can make a significant difference to the opportunities presented to learners.

2.3.8.3.2.3 Operational principles

Opportunities for learning will be maximised if educators apply the above three principles consistently, systematically and creatively. (Spady 1994a: 14)

2.3.8.3.2.4 Performance standards

This concept will be examined in depth in the section of the chapter on assessment (see 3.6.3.1.1; 3.6.4.2; 3.6.4.2.1.1). In essence, Spady argues that norm-referenced evaluation systems where learner performance is dependent on

how they achieve compared to each other, works against learners and inhibits performance. Criterion-referenced systems should rather be adopted where learner performance is measured against an external standard.

2.3.8.3.2.5 Curriculum access and structuring

This is an important dimension in that learners must have the opportunity to internalise knowledge and skills through a well-designed, flexible curriculum. Opportunities must be created for learners to practice skills and be guided through increasing levels of complexity. Spady (1994a: 15) maintains that "... if schools do not make essential courses and programmes available to learners, or if access is limited to fixed, single-chance events and time blocks, then students' chances for learning and future success are inherently constrained ...".

Two further dimensions to be considered, which are implied, yet not specifically stipulated by Spady and which form part of the four principles are those of High Expectations and Designing Down.

2.3.8.3.3 High expectations

This dimension will be fully explored in the section of this chapter on assessment. What the dimension means in essence is that learners must be encouraged to lift their performance and not accept mediocrity. Standards must be controlled, criterion-referenced systems should be used and a school's learning ethos can be improved if unnecessary and simple courses are removed from the curriculum. Learners must be challenged to produce high-quality work. Parents are concerned that, with the introduction of C2005, academic standards at school level will drop. This need not be so if high expectations challenge learners to perform at higher levels.

2.3.8.3.4 Design down

Educators at school must identify which outcomes learners are expected to achieve and then design a curriculum that allows them to meet these outcomes. This is called 'backward mapping'. Design is started where the learners are required to end up. Spady (1994a: 18-19) uses the terms culminating, enabling and discrete (see section on outcomes) to explain the first of two Golden Rules of Outcomes-Based Curriculum Design. The first rule is to design down from culminating or exit outcomes to establish the enabling outcomes on which they depend. The second of the two golden rules is to replace or eliminate discrete outcomes that are not necessary to reach the culminating outcome, in other words, educators must be brave enough to remove outcomes from the curriculum that are not enabling and do not play a part in a learner's culminating outcomes. The design down principle enforces schools to examine what is really essential to achieve learning outcomes - especially with the time constraints that will always be with us. C2005 allows a degree of flexibility in this regard by allowing schools to set their own learning programmes and to choose how many of the critical outcomes, specific outcomes and assessment criteria need be covered in a learning unit. It is imperative that schools and educators learn the skill of selecting what knowledge is essential for learners to know in this day and age of rapidly increasing information. The four principles as outlined above are often quoted in academic literature and are called the 'power principles' because they are the basis of any OBE system.

Two aspects of an educational system are shaped by the four principles. Firstly there is an operational system and secondly a support system. The operational system relates to the curricular and instructional elements and relates directly to the teaching learning situation. The support system relates to the administrative, logistical and resource components that allow teaching and learning to take place. The operational system is composed of four parts as indicated by the blocks in the four corners of Diagram 2.3 below (see sect. 2.3.8.4).

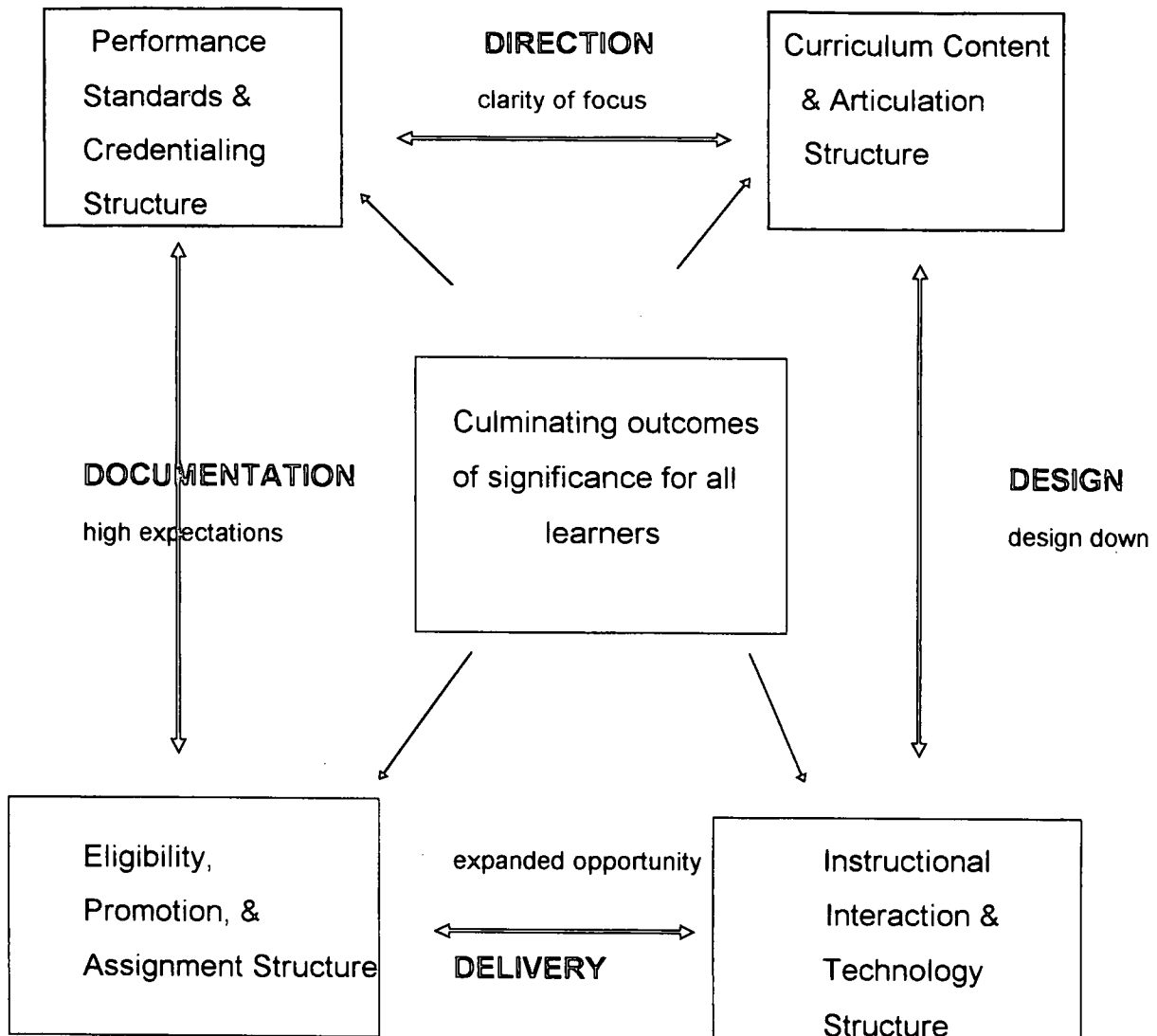
The performance standards and credentialing structure determines how achievement and performance standards are defined and how credits are awarded. The curriculum content and articulation structure determines how the system's formal learning programmes are organised. Instructional interaction and technology structures determine what tools are required to allow instruction to take place, and the eligibility, promotion and assignment structure contain everything related to time-tables, promotion and class groupings.

2.3.8.4 The Practices - Defining, designing, delivering, documenting and determining

Things become a little confusing at this point in Spady's description of this operating system. He lists five practices, but in the diagram these are reduced to four which he now refers to as 'broad functions'. However, the researcher has combined these in figure 2.3 below. In the centre of the diagram are the Culminating Outcomes of Significance for all learners. These represent the driving force behind the whole system. The large arrows in the diagram depict that the four blocks are connected and carry out the fifth component of Spady's Pyramid, the Practices. The four 'power principles' that define OBE programmes are the factors that, in combination, are able to create the conditions that enable learners to:

- learn more
- demonstrate higher levels of skills
- get credit for their accomplishments

Diagram 2.3 An Outcomes-based Operational System



(Spady 1994a: 23)

According to Spady and Schleich (1999: 30) these three factors are what make OBE effective when compared with traditional education. Educators who implement these four principles intentionally and systematically are doing OBE—those who don't are not. To add to what has been mentioned previously, the most fundamental of the four principles - clarity of focus on outcomes directly influences direction setting in that it focuses the attention of the curriculum planners on the ultimate exit outcomes that must be achieved by learners. These outcomes must be made clear to the learners before any instructional programme

is started, in other words the outcomes must be visible, public and transparent. This principle prioritises outcomes rather than covers the syllabus.

The design-down principle connects the curriculum content and articulation structure with the instructional interaction component by assuming that learners will have a clear path for getting to the outcomes, and that the curriculum will focus on what is essential for getting there. As has been mentioned before, this backward mapping approach is the derivation of the word 'based' in OBE.

The principle of high expectations implies that high and challenging standards of performance for learners must be set. Learners must demonstrate competence at a certain standard before credit is given. Criterion-referencing is used to determine these standards and mention has been made before of Girl Guide and Boy Scout badges that are awarded in this way. Badges are earned when the criteria are demonstrated successfully - there are no badges awarded for a partial performance. If more time is needed, the time is allowed without penalty. If the criteria are not met there is no permanent 'failure' recorded and the learner is allowed to 'try again'. This is one of the major paradigm shifts that are going to have to be made in the area of assessment.

This concept has many implications, one of the main ones being that assessment will be difficult if learners are not all being tested at the same time on the same work. New ways of assessment are required: it will change from norm-referenced to criterion-referenced assessment, "... a student's performance will be evaluated against an external criterion rather than against a class average or the performances of other students ..." (Lubisi *et.al.* 1997: 23). Assessment will be dealt with in a later section.

Spady and Schlebush (1999: 34) maintain that challenge, not competition, is the crucial thing to remember here. All learners are encouraged to achieve, but their achievement is not dependent on the success or failure of others. Learners do not compete with each other; there is not only one winner, as shown by Fitzpatrick

(1991: 22) where District 214 has a policy of having an Honours-Roll rather than one valedictorian. This concept, the researcher feels, will increase learners' motivation to succeed. Demotivation occurs, or learners stop trying, when they know that some must achieve (pass) and some must fail or do less well because of norm-referencing.

This principle of high expectations links together the *Performance Standards and Credentialling Structure* operational component with the *Eligibility, Promotion and Assignment Structure* component.

The critical outcomes outlined by C2005 are going to demand high expectations of learners as they move through the General Education and Training Board to the Further Education and Training Board. These critical outcomes represent various kinds of performance abilities that learners are going to need in their lives after school, and educators will be challenging learners to demonstrate increasing levels of competence on these outcomes as they move through the school system.

The expanded opportunity principle means that learners must be given more than one chance to demonstrate competence, in other words, the 'second chance' principle. If they don't succeed the first time, opportunities must be provided for them to learn some more and try again. This principle ideally takes into account the varying learning rates of learners. Good outcomes-based instructional programmes use time and instructional methods in a variety of ways. Slower learners are given remediation; quicker learners are given enrichment. In this way all learners are kept working at their own pace.

Fitzpatrick (1991: 20) in District 214 found that, for this to work properly, frequent formative assessment is called for. Vickery (1988: 53), reporting on the successful Johnson City District, showed that educators administer frequent formative tests on instructional unit objectives - learners who have mastered the objectives work on enrichment activities, while others receive corrective

instruction. Thus learners who need more time and instruction are to receive it, and those who do not are freed to work on other things. Experienced educators and instructional leaders will immediately see that this is the most challenging of the four principles in that it has the potential to pose serious time-tabling, logistical and administrative problems. The traditional school system is geared towards the 'first chance' policy and one really has no time to worry about remediation or helping learners learn 'old' syllabus content again, which the researcher believes is a serious constraint.

Here the implication could perhaps be drawn that content is not important; this is not so. Spady (1994a: 53) assures us that OBE's principle of high expectations will ensure that all learners will have "... in-depth encounters with high level areas of knowledge and skills ...". The golden rules of design down must apply when educators design the curriculum, in other words, the competence and skills knowledge base must be built in. The enabling outcomes must be of sufficient standard and complexity so that learner performance, or a demonstration of learning on the culminating outcomes, will not be based on irrelevant control details, but on really important life skills.

2.3.9 Demonstrations of learning

Spady (1994a: 52-56) maintains further that learner performance requires the integration and application of content, competence and confidence. This means that to perform successfully learners have to know something (content); be able to do something (competence) and be like a real person (confidence) when doing it. Spady argues that knowledge (content) itself is not an outcome; it is an enabling instructional objective. Similarly, confidence by itself is a goal (no demonstrable verb or action verb) rather than an outcome and competence cannot exist in isolation from the other two. What Spady is working towards with this line of thinking is that outcomes are effected by affective (psychological) factors, claiming that these factors or values (motivation, confidence, self-concept) are:

- Not outcomes in their own right, but are vital to any demonstration of success.

- Always come into play when outcomes are selected and defined because they reflect the values of the people choosing them.
- Usually of two types - civic and personal.

It is necessary to expand on the last point because the seven critical outcomes, (as indeed do many of the specific outcomes of the Learning Areas) have these civic and personal values inherent in them. Civic values are those standards of behaviour binding members of a society together, for example, honesty or respect for the law. The civic values of C2005 are:

- Communicate effectively using visual, mathematical and/or language skills.
- skills in the mode of written presentation (caring, rights of others).
- No. 3 Organise and manage themselves and their activities responsibly and effectively (respect for law, accountability).
- No. 4 Work effectively with others in a group (personal accountability).
- No. 9 Participate as responsible citizens in life (local, national and global).
- community (honesty, respect for the law, caring, personal accountability).

(NDE 1999: 21)

These civic values should be incorporated into the school's rituals and celebrations that go on throughout the year. Personal values are those standards of behaviour that bind together social groups e.g. religious, moral and cultural issues. These are reflected in the critical outcomes of C2005 as follows:

Being culturally and aesthetically sensitive across a range of social contexts (celebration of individual differences).

Spady (1994a: 57) warns that there can sometimes be a clash between civic and personal values that can be exacerbated by OBE programmes because of the existence of 'attitudinal and affective' factors that are manifested in demonstrations of learning.

This can arise if non-demonstration verbs (know, believe, feel and so forth) are used to define outcomes, instead of using action verbs as described on page 111.

2.3.10 Classification of outcomes

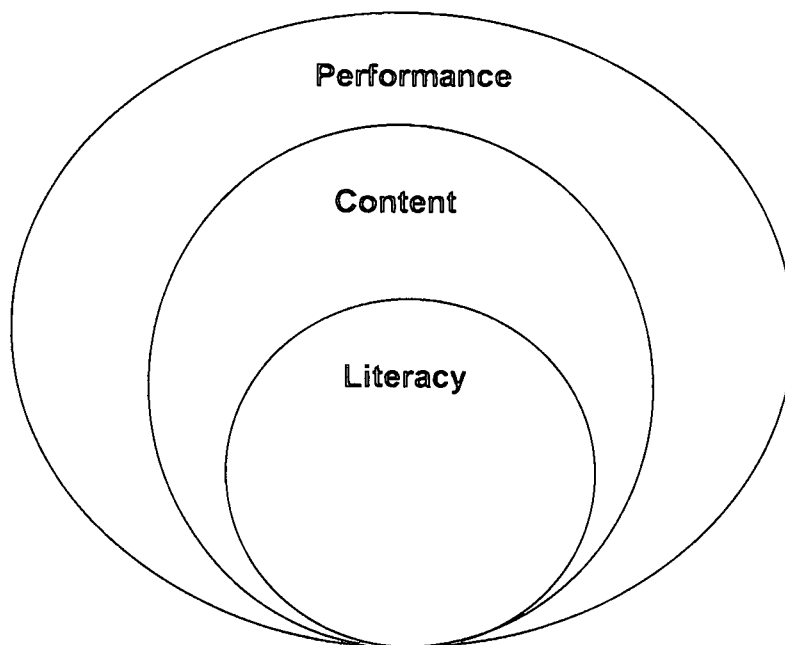
Because the issue of selecting and defining outcomes is such a sensitive issue, Spady (1994a: 59) classifies outcomes into six kinds. This classification will help when schools, districts/provinces or communities select and define their outcomes. These are as follows:

- **Content Focus.** Outcomes are classified according to subject areas or content, for example, Biology, Maths.
- **Time-Referenced.** Outcomes are classified according to time blocks to which they are linked, for example, Senior Phase Outcomes, term outcomes, grade outcomes.
- **Curriculum Scope.** Outcomes are classified according to the scope of curriculum segments.
- **Jurisdictional domain.** Outcomes are classified according to organisational jurisdiction, for example, provincial, national outcomes.
- **Competence complexity.** Outcomes are classified according to the scope and complexity of the competence that must be used to perform them, for example, discrete skills, complex instructional tasks and complex role performances.
- **Operational Function.** Outcomes are classified according to the function they serve within a design framework, for example, culminating outcomes, enabling outcomes, discrete outcomes (Spady 1994a: 59).

The first three kinds of outcomes, the content-focus, the time-referenced and the curriculum scope, are used most often in older, more traditional types of OBE implementation approaches, since they represent the simplest forms of demonstrations of competence relying heavily on content skills as their performance. The latter represent the highest form of outcomes, those that are complex and those that are required of people to function effectively in society, their families and their jobs. Care must be taken in the selection of outcomes as it

must be borne in mind that this can be a sensitive and emotive issue and thus careful selection is important. Outcomes usually represent the values of the people and communities selecting them, and because they can be open to interpretation, this could represent a conflict between civic and personal outcomes. Spady (1994a: 60) suggests that a strategic design be adopted to guide those selecting outcomes of significance. He names this the 'Three Critical Domains of Outcomes' and represents them as follows:

Diagram 2.4 Three Critical Domains of Outcomes



(Spady 1994a: 60)

The largest domain, performance, embodies the concept of outcomes as represented thus far and these are the significant, culminating outcomes, the ones that really matter in the long run, in other words, after school (what the learners can DO with what they have learned). The content (essential core knowledge without which performance is impossible), and literacy (language and numeric tools for acquiring knowledge and developing competence) outcomes, are critical enablers of the performance outcomes. Spady (1994a: 61) argues that this answers the criticisms against OBE programmes in which it is perceived that content does not matter too much or that basic literacy is unimportant. The

researcher believes that they are important and this issue will be addressed in the commentary on OBE later in this chapter.

From what has gone before, outcomes of significance are demonstrations of skill and competence. These can be demonstrated in different ways and can be performed at different levels of complexity.

2.3.11 Spady's Demonstration Mountain

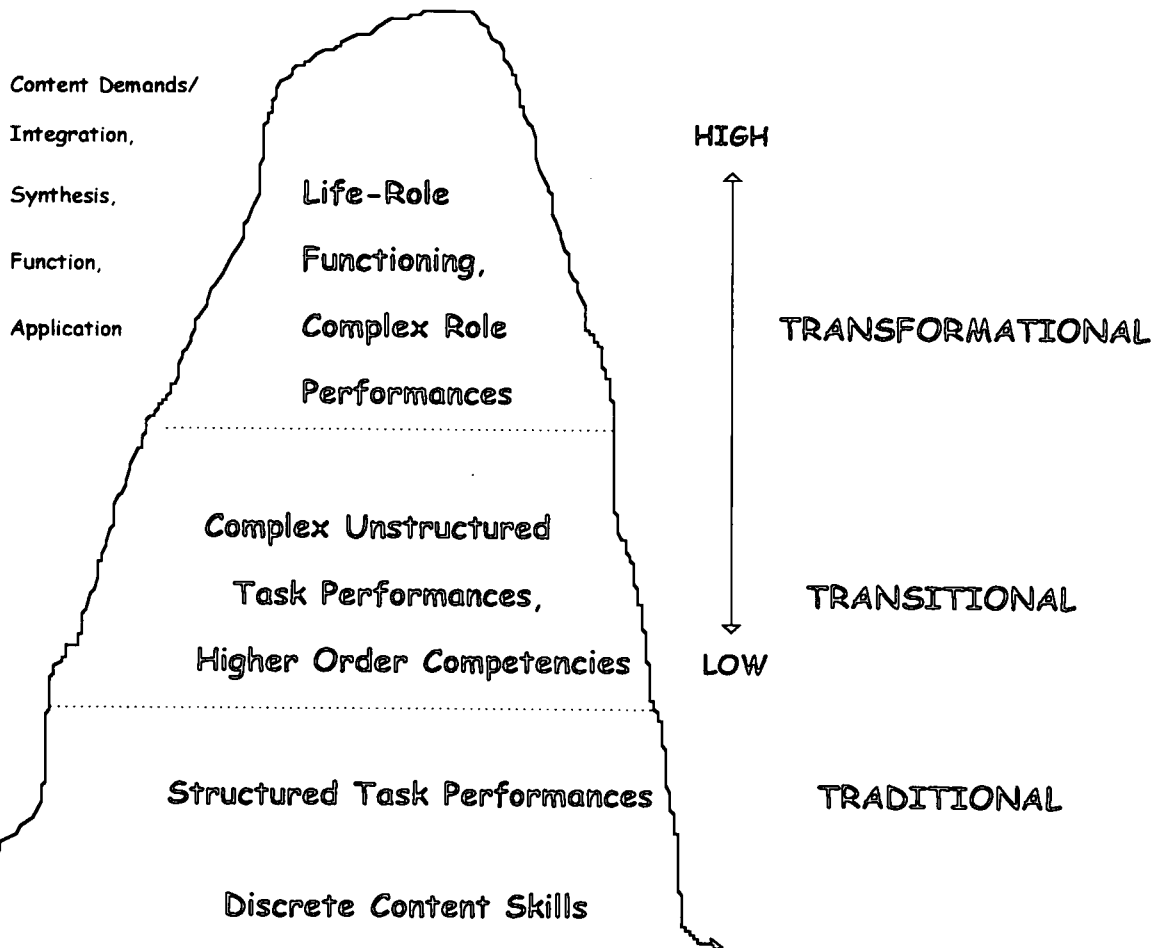
Spady (1994a: 62; 1994b: 20) and Spady and Schlebusch (1999: 48) use the metaphor of the Demonstration Mountain to illustrate the point about the different forms that demonstrations of learning or competence can take.

Spady maintains that these demonstrations of competence take six forms that range from very simple discrete skills, to the very complex and challenging life-role performances (Spady 1994a: 61). Spady argues that these role performances of complex and comprehensive learning experiences represent a shift away from small, relatively simple curriculum-focused segments (micro-skills) (Spady 1994b: 18), and these demonstrations have to take place in context or in a performance setting. It is important that learners demonstrate or perform outcomes in real-life situations. This makes the performance authentic and creates opportunities for different forms of authentic assessment. This real-life performance will only really be possible if the competence and confidence factors are part of the performance.

The six forms of demonstrations form a 'hierarchy of performance competence' (Spady 1994a: 61; Spady and Schlebusch 1999: 48). This means that each form of competence serves as an enabling outcome for the outcomes above it. In addition there are three major zones that are represented on the mountain, (from the bottom): the traditional, the transitional and at the top, the transformational zone. The following diagram summarises the main aspect of the mountain:

Diagram 2.5 Spady's Demonstration Mountain

Complexity of:



(Cognitive) (Functional) (Relational) (Language)

The diagram suggests that the higher one climbs:

- The more complex and significant the demonstrations of learning become;
- The more complex and challenging the settings, circumstances and contexts in which the demonstration takes place become; and
- By implication, the greater the degree of self-direction, motivation and adaptability required of the learner

2.3.11.1 At the bottom of the mountain - Traditional OBE

At this level, the Traditional zone, is the simplest and most content-imbedded form of learning. These are micro forms of learning and represent *Discrete Content Skills*.

2.3.11.1.1 Discrete Content Skills

These are simple demonstrations or performances of learning. They are narrow in scope, structured by the educator and relate to small, specific parts of the curriculum. Examples include reading, spelling, drawing specific objects, identifying parts of a diagram. The skills demonstrated are tightly bound to the content and there is no integration between different subjects or content areas. These discrete content skills, or what has been referred to previously as Discrete Outcomes, are the enablers of the next level, the *Structured Task Performances*.

2.3.11.1.2 Structured Task Performances

These are slightly more complex tasks and are represented by educator-structured projects, assignments, homework and most day-to-day classroom activities. They use as their enabling outcomes the Discrete Content Skills below them and require a broad range of mental processing. They require the completion of tasks the educator has set. Examples include writing an essay on pollution, carrying out a laboratory experiment and comparing the result with established theory.

These traditional outcomes represent basic skills and the learner's role is to "... carry out those prescriptions and details accurately ..." Spady (1994a: 63). Not much thinking is involved and the perceptive reader will see that they mostly reflect the current state of events in South African education, in other words, they are educator centred, with little constructive, active participation on the part of the learners. This level of outcome does not require the higher-order thinking skills of

analysis, synthesis and integration of other subject content. Spady (1994a: 63) makes the very salient point that at this level of performance "... to be successful, students usually have to do no more than engage with content, while in their seats in self-contained classrooms ...".

Educators often make the mistake of assuming that adding to the number of steps required in a Structured Task Performance makes it more complex: this may only make the execution of the task more difficult and not necessarily increase the complexity of the thinking skills required.

2.3.11.2 The middle of the mountain - Transitional OBE

This is the Transitional Zone and here *Higher Order Competencies* are encountered.

2.3.11.2.1 Higher Order Competencies

These competencies include analysing inter-relationships between concepts; using various forms of complex data and information to make decisions; communicating effectively with public audiences. These demonstrations will naturally involve many different types of content and do, to a certain extent, integrate across different kinds of subject areas. They rely on the Traditional Zone Content Skills and Structured Tasks as enablers.

The next level of demonstration includes the *Complex Unstructured Task Performances*.

2.3.11.2.2 Complex Unstructured Task Performances

Factors such as personal ownership, self direction and self assessment intensify. Learners make a higher commitment to their learning. They move to another level of performance and create their own projects in independent research which

require integration of knowledge from many sources and different subjects. The performances are less well-defined and learners have to learn to create and shape their own performances, and act as innovators - hence the term 'Unstructured Task Performances'.

These two forms mean that the learner is going to have to add originality and creativity to the performance and, very significantly, the tasks to be performed are more likely to be imbedded in real-life issues and situations. Factors like these are referred to as being competence dominated.

This Transitional Model of OBE has been adopted by both Johnson City District and District 214; in other words, they are half way up the mountain and have not yet moved to the next, most complex level. An important point to note about Transformational OBE is that the formal curriculum is still used in Transitional OBE models.

2.3.11.3 At the top of the mountain - Transformational OBE

This is the Transformational Zone and to enter this involves a paradigm shift in that the formal content-laden curriculum is left behind. Learners now enter the realm of real-life role performances and they demonstrate skills that will allow them to function effectively in their occupational, family and civic roles. This requires complex applications of many kinds of knowledge and competence. Learners will be required to integrate, synthesise and apply a wide range of competencies in a variety of conditions that mirror real-life situations. Spady (1994a: 64; 1994b: 21) calls these most complex forms of competence '*Complex Role Performances*' and '*Life-Role Functioning Performances*'. They are called Transformational because they:

- totally alter old conceptions of how schools define learning and organise themselves to accomplish it (the paradigm shift);
- transcend content bound behavioural objectives.

The first level of the Transformational Zone contains the *Complex Role Performances*.

2.3.11.3.1 Complex Role Performances

These are carried out in real-world contexts, in other words, they are demonstrated in the face of the demanding realities of their jobs, the complex interactions and politics of social life. The top of the mountain is thus "context" dominated (Spady 1994a: 64), and is the macro demonstration of learning (Spady and Schlebusch 1999: 49). Examples of Complex Role Performances include being a leader in the community or being a creative innovator in a job.

2.3.11.3.2 Life-Role Functioning

The Life-Role Functioning component, at the very top of the mountain is what adults must do to make their lives work; the demonstrations of learning are the ultimate complex ways of applying everything we know and do to lead a fulfilling life (Spady 1994a: 64; Spady 1994b: 21; Spady and Schlebusch 1999: 49).

Spady (1994a: 64) uses the word 'role' deliberately to emphasise the point that to be a successful role performer, individuals must possess deeply "... internalised performance abilities ...". Roles mean having responsibilities and are the skills that need to be developed to fulfil these roles. They are not acquired in one course or demonstrated only once. They are acquired over years of practice using a wide variety of content in different contexts. They are not something that can be practised "... the night before a demonstration is performed ...". Individuals operating at this level of the Demonstration Mountain have the intrinsic motivation and commitment to continually carry out role responsibilities and not just perform isolated tasks on demand and to see tasks through to the end. It is obvious that the top of the mountain moves well beyond the content-laden traditional school curriculum.

Great demands are made of learners who will have to show maturity in, and accountability for, their learning. The onus to succeed falls squarely on the shoulders of the learner, and even after the operational and support systems have provided the necessary opportunities for learning, the educator's role is that of a guide, mentor and facilitator. This is the most significant challenge posed by the mountain. Traditional educational practice does not provide the mechanisms to address and teach the complex abilities that fall at the top of the mountain. This is also the tremendous challenge of C2005, in that several of its critical outcomes are placed at the top of the mountain. South Africa has chosen to adopt the Transformational Model of OBE and this will be discussed fully in the next chapter of this dissertation.

The question posed now is whether schools are able to provide and create the opportunities for learning experiences that will allow demonstrable skills in Complex Role Performances? The answer perhaps lies in the question of which role performances link the world of schooling to real life. Spady (1994a: 65), following his argument that little skill, knowledge or competence makes it out of the classroom, maintains that "... the challenge facing schools today is how to bridge the enormous gap between traditional school learning and measures of achievement, and the 'authentic' and complex demonstrations of competence people have to show once they leave their classroom seat ...". This has been exacerbated by the requirements of the Information Age Technology mentioned earlier. Schools are having to re-select and re-define outcomes and move from the bottom of the mountain to the top, in other words, move from the content bound curriculum to one bound in contexts.

This is going to mean a radical change in methods of assessment since traditional testing and examining methods are not going to be satisfactory for testing higher order competencies at the top of the Mountain. The complex activities of Life Role Performances can only be measured and assessed if learners are actually carrying out these activities like planning, leading, organising. Their demonstrations of competence, (such as what they can actually do) must then be

assessed by what is called 'authentic assessment'. This measurement is difficult and educators are, at the time of writing (2001), still very unsure and confused about what form this assessment is going to take. Assessment will be discussed later. Research prompted by the Secretary's Commission on Achieving Needed Skills (SCANS) report, in the USA in 1992 (Spady 1994a: 66), showed that several schools had implemented OBE programmes that addressed the Complex Role Performances and Life-Role Functioning outcomes from the top of the Mountain.

Policy documents outlining a C2005 approach stipulate that all learners become fully functional citizens, and with this in mind Spady's Fundamental Life Performance Roles, described below, need to be an integral part of any C2005 programme at school level. It is therefore necessary to discuss these roles as described by Spady as part of his OBE approach.

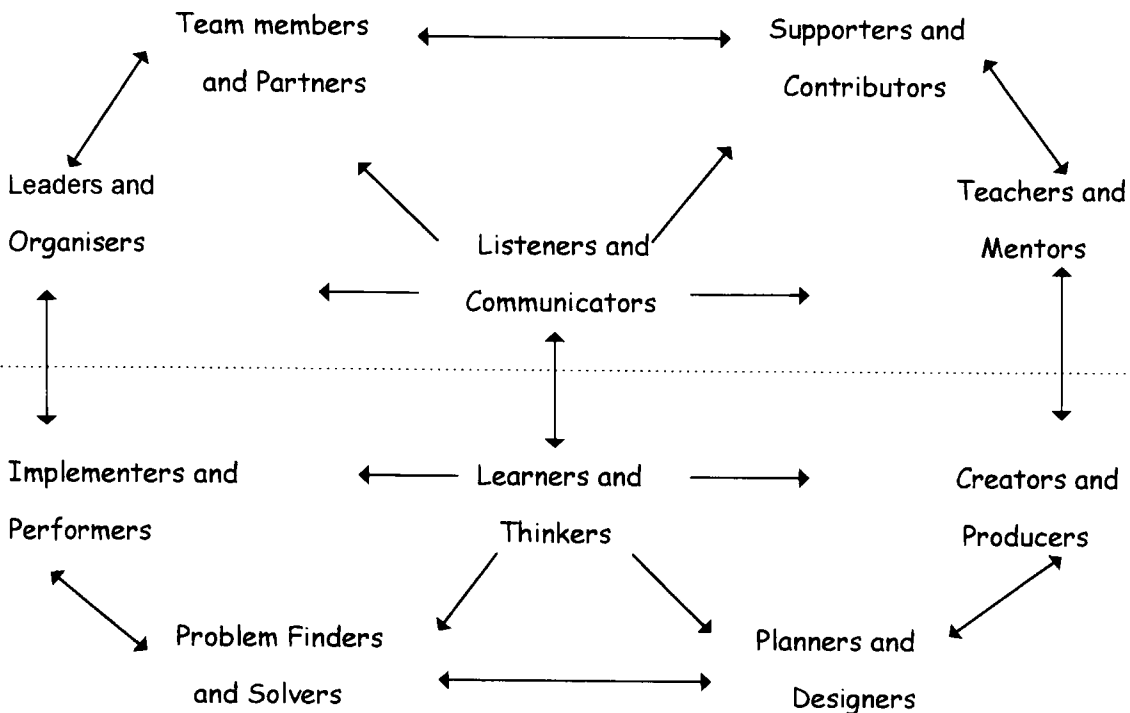
The idea behind an outcomes-based approach today is to produce learners who can transfer their skills from the classroom to society, thereby becoming functional and contributing members of that society (see 2.3.8.2). It is therefore necessary to define the fundamental life role-performances that must be learned in order to become fully functional members of society. Schools must know what competencies and outcomes are necessary for their learners to be skilled in fulfilling the life-role performances. The instructional leader therefore needs to have an idea of what should be built into learning and teaching programmes to achieve this.

2.3.12 Fundamental Life Performance Roles

Instructional leaders need to be aware once again that the teaching-learning interaction will not automatically skill learners in these life performances. It needs to be part of an active progressive programme and it is an important role of the instructional leader to encourage this.

Diagram 2.6 Fundamental Life Performance Roles

Social and Interpersonal Roles



Technical and Strategic Roles

(Spady 1994a: 67)

Spady (1994a: 67) constructed a "... general composite of the role performance outcomes ..." developed by these districts and found a considerable overlap among the general types of role performers they identify. Diagram 2.6 reflects a composite of the elements found in the above districts' frameworks and also studies the Information Age workplace requirements. The diagram combines elements from both of the categories in the transformational section of the Demonstration Mountain, hence its name - Fundamental Life Performance Roles.

Two broad categories of life-role performances are evident from the diagram. The top half represents social and interpersonal skills and the bottom half technical and strategic skills. An explanation of each of these follows:

- *Listeners and Communicators* who can express themselves clearly in either words or symbols and show concern for others.

- *Educators and Mentors* who are able to help other people to enhance their thinking by providing guidance and motivation.
- *Supporters and Contributors* who invest time and resources to improve the quality of life around them.
- *Team Members and Partners* who encourage people to participate in collaborative efforts to achieve aims.
- *Leaders and Organisers* who take control, initiate and organise activities.
- *Learners and Thinkers* who translate thinking into action.
- *Implementers and Performers* who apply ideas and technology to life roles.
- *Problem Finders and Solvers* who can analyse situations and come up with solutions.
- *Planners and Designers* who are strategic planners.
- *Creators and Producers* who find new ways of doing things.

(Spady 1994a: 70-71; Spady 1994b: 21-22)

It has been suggested that the above framework can be used as a strategic plan for implementing an OBE programme in a province or school. This will be discussed in section 6.3.3 giving guidelines for instructional leaders

Spady cautions that these are not yet fully developed exit outcomes: for them to be so, each of them would have to have a clear explanation of what type of demonstration would be required to meet the outcome successfully. All of this is not easy to understand, especially by educators who have been teaching in the 'old' way for all of their teaching careers. Add to this a lack of training and a lack of resources and a potentially stressful situation results - which is exactly what happened when C2005 was announced by Prof. Bengu in February 1996.

The relevance of these Life Performance Roles has been explained and it is necessary to emphasise that the instructional leader needs to ensure that staff fully understand their importance in preparing learners to fulfil their roles in society. The researcher's experience has shown that much guidance, training

and motivation is necessary to ensure that these roles are not just a by-product of normal curricular teaching but are formally addressed during instruction.

2.3.13 Factors that makes OBE work

2.3.13.1 Community involvement

In a well-designed, OBE educational institution; everything pertaining to instruction is geared towards this end. This means that a total commitment from everyone connected to the institution is essential. This ranges from the youngest learner to the most senior management council member. If learners, educators, parents and management council members are not fully briefed on what an outcomes-based approach means and requires, there can be many problems in the implementation and the organisation of the programme (Sunday Times 10 September 2000; The Star 6 August 2001). Fitzpatrick (1991: 18-22) working as Superintendent of Schools in Arlington Heights, Illinois, used teams of educators, administrators and school board members to define learner outcomes to prepare her District 214 for outcomes-based programmes. This approach has been partially adopted in South Africa in that various stake-holders were consulted in the planning of C2005. A major criticism however, was that educators were not consulted during the planning phases and this led to immediate resistance. Although C2005 policy documents lay down a series of Phase Organisers which outline areas of study, the community still has a say in choosing Learning Programmes (Free State Department of Education (FSDE) 2000b: 5). At local (school) level, educators and communities are consulted when Learning Programmes are designed for each school (Sunday Times 16 January 2000). These Learning Programmes can vary from school to school and are generally tailored to the needs of the community and the learners.

2.3.13.2 Substance and resources

The most common arguments that the researcher has encountered pertain to the apparent paucity of, and lack of substance in the content of the Learning Programmes being implemented in Grade 7. This argument applies especially to Mathematics and General Science. Educators currently working with Grade 7 outcomes-based programmes feel that they need to add to the content as laid down by the range statements. As there are no prescribed textbooks, the educator is required to research and provide the content from a variety of resources (Sunday Times 23 January 2000). This poses a problem in that this process is time consuming and sources are not always readily available. Many educators are resorting to the material as found in the old, prescribed textbooks and calling it 'enrichment'. The researcher does not agree with this approach as it goes against the basic philosophies of OBE. Ways are going to have to be found to help the educator make the necessary paradigm shift. Modern parents are concerned that if the focus is on outcomes, with the educator acting as facilitator, this will work against their children, in other words, they are not going to 'know enough' at the end of the term or year. Another grave concern is that traditional subjects such as Mathematics and Physical Science seem to have been lost in new structures and are part of new Learning Areas like Mathematical Literacy and Natural Science. This will be commented on in the section on C2005 (see 3.6.3.3; 3.6.4.1.1).

2.4 Summary

This chapter started with a discussion on the history of education in South Africa from the 1600s to the period after the first democratic elections in April 1994. This period was characterised by inequalities and disparities in the provision of education for Whites and Blacks. The period from 1953 to the late 1980s was considered to be the cornerstone of apartheid and the highly political Peoples' Education Movement emerged at this time. This movement pleaded for social

and educational transformation, more relevant curricula and equal access to the world of work.

Coinciding with the un-banning of the ANC in 1990, the dual pressures of globalisation and massification impacted on education and training and led to the policy initiatives of, National Education Policy Investigation (NEPI), National Training Board (NTB), National Commission on Higher Education (NCHE) and the Green Paper on Further Education and Training, all of which called for radical change in the education system. These pressures resulted in the introduction of an outcomes-based approach to education and training, namely, C2005. The origins of OBE in mastery learning and constructivism are acknowledged and therefore the definition of OBE as formulated by Spady, is seen as worthy of scrutiny in this research.

It is apparent that adopting the OBE paradigm is going to require changing teaching methodology. Education is based on outcomes and backward mapping (see sect 2.3.7; 2.3.8.4) is required to work out teaching strategies that will enable learners to meet the outcomes. It is necessary for the instructional leader to understand that the management of C2005 as a reform movement (see 4.7.1) requires the management of change. The implications of the new curriculum with its outcomes-based approach does not simply impact on teaching and learning practices, but also on how schools are to be managed at all levels. Instructional leadership is thus not simply a straightforward administrative task but involves a thorough knowledge of curriculum development and delivery that will guide effective teaching and learning practices. The fundamental change from teacher-based to learner-based education implies that teachers need to be retrained in new teaching strategies and assessment procedures (see 3.7.3; 4.7.4). This study is about the role of the instructional leader in C2005 and the skills and knowledge he will need to make the implementation of OBE successful. The researcher has experienced much difficulty in trying to change the management of teaching and learning towards an OBE outlook. The previous curriculum with its

teacher-centred, content-bound approach was relatively easy to manage and control. An OBE style of management demands a far greater knowledge of curriculum issues, learner-centred teaching strategies and the use of newer forms of assessment. The instructional leader has to have a thorough knowledge of the philosophy of OBE in order to train staff. This is discussed in depth in chapters 4 and 6.

In Chapter 3 the stage is now set to discuss the concept of C2005, the South African version of OBE. The necessity for the South African Qualifications Authority, as well as the structure of the National Qualifications Framework, will also be investigated.

Chapter 3

Curriculum 2005 - Its introduction, structure and implementation in South African education

3.1 Introduction

This chapter examines the introduction, structure and implementation of C2005 into South African education. It starts with a brief discussion of curriculum theory, examines the origins of C2005 in OBE, discusses quality assurance as guaranteed by the SAQA and the NQF, and outlines the design features of C2005.

3.2 Curriculum theory

The introduction of C2005 as a curriculum model and the changes within the South African education system have brought the whole matter of curriculum and curriculum development to the foreground. During the apartheid years the South African curriculum appeared to be cast in stone and little development took place during this time. C2005 has forced an examination of the curriculum and curriculum theory. This study is specifically about instructional leadership and the implementation of C2005 in Grades 8 and 9 of the General Education and Training (GET) band. The discussion of curriculum theory which follows is thus not exhaustive and serves only to highlight those issues which are pertinent as a background to the understanding of curriculum theory and more specifically to C2005 as a curriculum model.

Curriculum models guide the process of decision making in designing learning programmes because curriculum development should be perceived as a task that requires orderly thinking when one examines both the learning model and the learning that has to be accomplished (Jenkins and Shipman 1976: 4-5; Nicholls and Nicholls 1978: 56; Jacobs and Chalufu 1996: 95).

Any curriculum exists across time, beginning in intentions, being put into practice and ultimately in giving rise to learning and other consequences. Hirst (1975: 2) regards the curriculum as a programme of activities designed to promote certain ends and these ends should ideally embody the ends of a liberal education, that is, the introduction of pupils to the main modes of experience or forms of knowledge which contribute to human understanding and the development of relevant life skills. This philosophy, as will be seen later, is incorporated into C2005

The question of what learners should learn at school and who should choose what they learn has long been posed. This is the concept of the curriculum, the learning content and learning opportunities which needs to be covered (mastered) by learners in order to reach an educational outcome. The Latin origins of the word curriculum lie in the term *currere* which means to run, which implies that the curriculum is a fixed track, route or course (learning content) which must be covered by learners in order to reach the end of the track.

3.3 The concept of curriculum

Curriculum design has always been part of education, and Dewey, as early as 1902, identified (along with the learner and society) organised subject matter as a vital factor in the total education process of the child. It was not until the 1920s however, that it became a professional field of study. Bobbitt was the first to research the curriculum and make recommendations for each grade (Vermeulen 1997: 7).

The narrowest interpretation of the term curriculum describes the activities taking place in an individual classroom, and going slightly wider, would describe the syllabi (the choice of content to be learned) of an individual school. To accept this point of view would be inadequate, and would simply require a survey of textbooks, official syllabi, and policy documents, and would not take into account the many and varied activities and interaction taking place in a school.

The researcher's reasons for adopting this viewpoint are embodied in the philosophy that the curriculum is not merely a collection of papers in a cupboard and does not only relate to the transmission of a body of knowledge. Much of what schools value in teaching and learning is poorly reflected in official publications and syllabi.

Tyler makes the powerful argument that the school's role is to help pupils prepare for life outside the school and that the objectives that are selected must reflect what skills are required for life. The objectives that are formulated must reflect the interest of the child and the society of which the child is a product.

The next section of this study will examine the curriculum theories of Dewey, Tyler and Bernstein and show that their ideas and philosophies are part of OBE and C2005.

3.3.1 The curriculum theory of Dewey

Dewey made a significant contribution to educational thinking in the 20th Century. He espoused a behaviourist psychology and adopted a pragmatic approach (a combination of rationalism or contemplation and instrumentalism or habit) (Deacon and Parker 1999: 67), with great concern for interaction, reflection and experience (Smith 1999: 2-3; Deacon and Parker 1999: 66-69). Dewey's overall plan for work in education was guided by the premise that education should:

- Conserve, transmit and advance civilisation in such a way as to make it a functioning part of responsible individuals.
- Encourage learning throughout life.
- Allow an individual to act in his natural and social world effectively.

(Wirth 1966: 30)

To these ends, Dewey stressed that a school curriculum must be constructed in such a way as to be in harmonic interaction with nature and proposed the following as fundamental factors in the educational process:

- The learner - the immature, undeveloped being.
- Society - certain social aims, meaning, values incarnate with the matured experience of the adult.
- Organised subject matter - the specialisation of the curriculum.

(Smith 1999: 22)

3.3.2 The curriculum theory of Tyler

In the 1950s Ralph Tyler published '*Basic Principles of Curriculum and Instruction*' in which he identified a number of key issues educators need to consider when they develop curricula and plan their instruction. Tyler's ideas specifically indicated the importance of identifying and formulating objectives for systematically planning educational experiences. He further maintains that an effective education programme must be carefully planned and must have a set of clear educational objectives.

Curriculum models guide the process of decision making in designing learning programmes because curriculum development should be perceived as a task that requires orderly thinking when one examines both the learning model and the learning that has to be accomplished (Jacobs and Chalufu 1996: 95).

Tyler's curriculum plan or model is called the *Tyler Rationale* or the *objectives model* and asks curriculum planners to consider four fundamental questions when designing a curriculum; these are:

- What educational purposes should the school seek to attain? (*Aims and objectives*).
- What educational experiences can be provided that are likely to attain these purposes? (*Content*).
- How can these educational experiences be effectively organised? (*Methods*)
- How can we determine whether these purposes are being attained? (*Evaluation*).

(Jacobs and Chalufu 1996: 96)

3.3.3 The curriculum theory of Bernstein

Bernstein describes two approaches to curriculum theory, each of which have important implications for the implementation of C2005 at school level and thus for instructional leaders. Firstly, he describes two broad types of curricula; a *collection* (fixed time) type of curriculum which has clearly bounded and separate contents, and an *integrated* (no fixed time periods) curriculum. C2005 follows the integrated approach where the various contents are subordinate to some idea which reduces their isolation from each other; contents become part of a greater whole and each content's function in that whole is made explicit (Bernstein 1975: 80). Bernstein further maintains that curriculum (defining what counts as valid knowledge); pedagogy (what counts as valid transmission of knowledge); and evaluation (what counts as valid realisation of this knowledge on the part the learner) form a whole and should be treated as such. C2005 is strong on integration: educators and learners should realise that knowledge is not isolated and discrete, but that content is linked. This poses problems in that integration can lead to a focus on lateral demarcation of knowledge as opposed to a vertical demarcation (breadth versus depth) and this has been a major criticism of C2005, especially from Mathematics and Science educators. Bloom (1984: 9) argues that integration did not have much

success when authors and publishers changed the sequential nature of topics in textbooks in an attempt to integrate sections of the work.

The researcher is experiencing such problems at the time of writing. C2005 was introduced into Grade 8 (Secondary school, Senior Phase of the GET Band) in January 2001. In spite of the fact that the learners and parents were exposed to OBE teaching methods and information sessions during the Grade 6 and 7 years, the parents are concerned that there does not seem to be enough content in its application at secondary school level. Parents are educated to expect secondary school educators to load learners with reams of notes to learn, regarding dates, theorems, definitions and so on, and do not fully understand that the same content is being dealt with in different ways.

Bernstein (1975: 84) warns, amongst other things, that as a curriculum moves from a collection type, to a curriculum of the integrated type, the following issues need to be addressed:

- Clear criteria for evaluation need to be worked out.
- The social consequences of the shift will bring about disturbances in the traditional authority relationships within schools.
- An alteration of the relationships between educators and between learners will be evident.
- The moral basis of education choices will become explicit and a conflict of values might result.
- The 'outside' (i.e. society, the environment) will penetrate the school in new ways.
- The moral basis for our educational choices will become explicit and we must expect a conflict of values.

Instructional leaders at school level should take careful heed of Bernstein's warnings. Each of the issues listed above, whether intentionally or unintentionally, are elements of C2005 and need to be actively addressed if the implementation of

C2005 in schools is to be successful. It is therefore imperative that instructional leaders at school should provide the necessary support for educators to be able to provide quality instruction. The complex role of the instructional leader is discussed in Chapter 4 of this study. It is necessary to emphasise that the curriculum is the most complex of all educational systems and the focus of all other systems - resource provision, organisation of the school day, maintenance of buildings and grounds, management of staff, financial procedures such as the acquisition and spending of funds, should be conducted with this in mind.

Bernstein (1996: 23-36) secondly identifies two distinct types of approach to the curriculum. He calls these the performance and competence models. Traditional pedagogy is based on the performance model which focuses on specific learning content in fixed time periods. The educator has a dominant role and learner assessment is based on deficits, that is to say, on what learners do not know.

The National Education Policy Investigation (NEPI) report (1992: 2) makes the valid point that "... a curriculum policy for South Africa needs to be grounded in an analysis of existing circumstances, and to be meshed with goals for future social development ...". From what follows later in this chapter, it will be seen that the intentions of C2005 embrace this philosophy and it is attempting to fulfil these requirements. The mission of South Africa's curriculum is stated as follows: "... the vision for South Africa encompasses 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 ..." (NDE 1997a: 3).

3.3.4 The National Department of Education viewpoint

The definition of the curriculum as described above supports the description (official policy does not actually give a clear definition) of C2005 as offered by the NDE (NDE

1997a: 2) which maintains that "... the curriculum is the heart of the educational process ... and that the curriculum be restructured to reflect the values and principles of our new democratic society ...". The document further states that "... the new curriculum will be based on the principles of co-operation, critical thinking and social responsibility, and should empower individuals to participate in all levels of society ... best achieved by a national curriculum ... the primary task of educational policy makers is the establishment of a just and equitable education and training system which is relevant, of high quality and is accessible to all learners, irrespective of race, colour, gender, age, religion, ability or language ... a priority for both national and provincial education departments, therefore, the creation of a transformative, democratic, open learning system, fostering in all its users, a strong commitment to lifelong learning and development ...". It goes on to state that (NDE 1997a: 18) "... a commitment to outcomes-based learning is central to the Lifelong Learning Development Framework ... an understanding of what is meant by outcomes-based education is, therefore crucial to the successful development and implementation of learning programmes ...".

3.3.5 Synthesis

It will be apparent from the above outline of curriculum theory that, as long ago as the 1920s, learner-centred, problem-solving education was advocated. Tyler in the 1950s introduced the concept of educational objectives. Bernstein's approach to curriculum theory introduced the concept of the *collection* and the *integrated* curriculum, the latter being incorporated into the design features of C2005. Bernstein further identified the performance and competence models as approaches to curriculum design. The competence model is a progressive approach and influenced the design of C2005. The NEPI report takes a political stance, implying that a curriculum has social and political dimensions and should serve to improve the quality of life of all learners. The official policy of the NDE combines all of the above elements in the design of C2005.

Having given a brief review of curriculum theory and the origins of C2005, it is now necessary to place this in an international context and discuss global influences on our South African curriculum and how this affects individual schools. This is necessary since C2005 is guided and shaped by international trends in curriculum and school reform. Taylor *et al.* (1999: 18) are of the opinion that conditions in large parts of the schooling sector in South Africa are at least as bad as they are in the most poorly-performing schools in The United States of America and the United Kingdom and that we should heed two lessons from these countries. Firstly, curriculum reform requires a minimum threshold of institutional efficiency for it to have any effect. Secondly, in low-performing schools, modest, achievable objectives should be set.

The researcher has first-hand experience of managing curriculum implementation in Grade 8 of the GET level. He found that a thorough knowledge and understanding of the policy documents pertaining to C2005 was essential to the successful implementation of C2005 at Secondary school level. The policy documents as published by then NDE, are difficult to understand. The documents use new and difficult terminology and do not specify content or guidelines for assessment. Since staff need to be fully conversant with the contents of the policy documents, the researcher, as the instructional leader, almost had to re-write them to make them understandable and workable for staff who had yet to be trained in OBE techniques. Some of the staff at the researcher's school were in their first year of teaching and had had little or no training in OBE techniques at their respective tertiary educator-training institutions. It is the responsibility of the instructional leader to ensure that this is done.

3.4 Principles relating to curriculum development

The principles for curriculum development all naturally have relevance as general principles for curriculum design. In this discussion, C2005 is focused around the background of international debates in the curriculum field, and a call for progressive pedagogy made by Chisholm (2000: 6-7) and the NDE (1997a: 3). Taylor *et al.* (1999: 19-25) expand the concept of a liberal education by contending that there is an emerging progressive agenda in school reform, as evidenced in writings from the United States of America and the United Kingdom. In the area of economics it is motivated by the demands of the information age which require workers to be responsible, intelligent and flexible in adapting to change and competition. The Teacher (May 1998:2) maintains that acquiring work experience and developing skills has to be one's own personal vision. Awareness of this has to start at school level.

The ultimate design of C2005 was, however, directly influenced by the principles detailed below:

3.4.1 Human resource development

Successful modern economies and societies require citizens with a strong foundation of general education; with the desire and ability to continue to learn, to apply and develop new knowledge, skills and technologies; to move flexibly between occupations; to accept responsibility for personal performance; to set and achieve appropriate standards and to work co-operatively. It is the role of the education and training system to prepare learners to be such citizens.

The notion of lifelong learning development, organised in South Africa in terms of a National Qualifications Framework (NQF), is incorporated in the human resource development strategy of the Government's Reconstruction and Development

Programme and, as such, should be a major thrust of a new education and training system (NDE 1995b: 11).

3.4.2 Learner-centredness

Curriculum development, especially the development of learning programmes and materials, should put learners first, recognising and building on their knowledge and values and lifestyles experience, as well as responding to their needs. Different learning styles and rates of learning need to be acknowledged and accommodated both in the learning situation and in the attainment of qualifications. The ways in which different cultural values and lifestyles affect the construction of knowledge should also be acknowledged and incorporated in the development and implementation of learning programmes (NDE 1995b: 11).

3.4.3 Relevance

Learning programmes should be relevant and appropriate to current and anticipated future needs of the individual, society, commerce and industry. Ever-increasing evidence suggests that economic growth in a competitive international economic system depends fundamentally on a generally well-educated population equipped with the relevant competencies and skills required in the economy at any point in time, but also with the capacity to continue learning and developing new skills and acquiring new competencies. A further requirement is that learners become technologically literate, especially in the area of information technology. Furthermore, the boundaries of knowledge which learners are accustomed to, need to be expanded to include areas with which they are unfamiliar. In the development, design and delivery of learning programmes, cognisance should be taken of differing cultures, languages and religious beliefs (NDE 1995b: 12).

3.4.4 Integration

Successful modern economies and societies require the elimination of artificial hierarchies in social organisation. An integrated approach to education and training implies a view of learning which rejects a rigid division between academic and applied knowledge, theory and practice, knowledge and skills, head and hand. Such divisions have characterised the organisation of curricula and the distribution of educational opportunities in many countries of the world, including South Africa. Adopting an integrated approach to education and training is one way of responding to these changes. The Sunday Times (12 March 2000) maintains that "... the idea is that learners should experience the world as a set of related systems in which knowledge is meaningfully integrated and not confined to the artificial compartments prescribed by the old system ... integration is designed to assist learners to have a more holistic understanding of the environments in which they operate ...". Although it will not create a successful economy and society in South Africa, such an approach is a prerequisite for successful human resource development. Integration as a curriculum strategy could facilitate the achievement of particular aims such as combining two or more traditional subjects into one. Another way would be to combine various subject themes into one (NDE 1995b: 13).

3.4.5 Differentiation, redress and learner support

Learning programmes should facilitate the creation of opportunities for all learners, including those who are disabled in some or other way, to strive towards the attainment of similar learning outcomes. Such an approach does not deny that there are educationally relevant differences among individuals. Neither does it rule out approaches that would recognise different levels of mastery. Implicit in the ideas of national standards, however, is the belief that differences in learners' interests and abilities should challenge educators to explore a host of alternative instructional methods and approaches (The Teacher September 2000). It follows that learners

should be given the opportunity of coping with demanding performance standards at their own pace rather than at the pace of the majority of the learners in a class. In addition, learning programmes should, while acknowledging that all learners have special needs, make special provision for accommodating those learners with learning or other disabilities in mainstream education (Education for Learners with Special Needs or ELSSEN). Such learners should receive special support where required. It is envisaged that learners such as these who experience problems with the basic functions of reading, spelling, writing and calculations, alternative assessing will be provided to evaluate their true potential and level of knowledge. The focus on demonstrations and alternative assessment methods, varying from complete exemption from reading and/ or writing inputs, to partial exemption by using tape recorders, bears testimony to this paradigm shift. The gifted learner, with the individualistic nature of OBE, where each learner will be working at their own pace, will enable the learner to accelerate through the curriculum (NDE 1997e: 7-8). Resources, including the projected national and provincial curriculum development centres, support services and liaison between government departments, non-governmental organisations (NGOs), business, industry, organised labour and the community, should be utilised to the full to ensure effective teaching and learning. Special programmes also need to be set up to redress the neglect that occurred in subjects like mathematics, science, technology and home languages (NDE 1995b: 14).

3.4.6 Nation-building and non-discrimination

Education and training should promote the development of a national identity and an awareness of South Africa's role and responsibility with regard to Africa and the rest of the world. Learning programmes should, therefore, encourage the development of:

- mutual respect for diverse religious and value systems, cultural and language traditions;

- multilingualism and informed choices regarding the language/s of learning;
- co-operation, civic responsibility and the ability to participate in all aspects of society; and
- an understanding of national, provincial, local and regional and developmental needs.

Learning programmes should protect and advance basic human rights, irrespective of gender, race, creed or age (NDE 1995b: 15).

3.4.7 Critical and creative thinking

Learning programmes should promote learners' ability to think logically and analytically as well as holistically and laterally. This includes an acknowledgement of the provisional, contested and changing nature of knowledge and of the need to balance independent, individualised thinking with social responsibility and the ability to function as part of a group, community or society. The perception of educators as dispensers of knowledge will also have to change, so that learners are valued as equal and active participants in learning and development processes (NDE 1995b: 15).

The Sunday Times (16 July 2000) reports that South African grade 4 learners have the worst numeracy, literacy and life skills in Africa and that in 1996, South African grade 7 and 8 learners came last in a maths and science study that involved 40 countries. It is obvious that the previous educational dispensation has produced puppets and not thinkers (Sunday Times 15 April 2001; 29 July 2001). Outcomes-based education is aimed at establishing in learners, the skills, attitudes values and knowledge that will help them become adults who can participate freely and widely in the culturally- diverse and rapidly-changing society they live in. In this adult world we are held responsible for the choices we make and our direction is influenced by how creatively we solve our problems. It is obvious then that it is the duty of parents and educators to empower children to think critically and creatively about the way

they do things.

3.4.8 Flexibility

Although learning programmes for education and training should adhere to a coherent framework of principles (Curriculum Framework) and lead to the attainment of national standards and qualifications (NQF), the means for reaching these ends should be determined by providers in accordance with the needs of their learners. Learning programmes should be flexible to provide learners with an increasing range of learning possibilities. This is especially important for learners in the Adult Basic Education and Training band since they are often not able to enrol for full-time courses (NDE 1995b: 15).

3.4.9 Progression

An integrated approach to education and training, linked to the development of a NQF, will be based on a system of credits for attaining learning outcomes, irrespective of where and when they have been attained. Learners should be able to progress to higher levels of achievement by mastering prescribed learning outcomes rather than through age or course cohorts. Learning programmes should facilitate progression from one class, phase or learning outcome to another from any starting point in the education and training system.

3.4.10 Credibility

In order for a country to be internationally competitive, its education and training system/s should be compatible with those in the rest of the world. Learning programmes should have both internal and international credibility. The areas of learning described in a Curriculum Framework, as well as the prescribed national

standards, should meet indigenous needs without deviating too markedly from those offered elsewhere in the world (NDE 1995b: 17).

3.4.11 Quality assurance

The quality of education and training will be assured by SAQA through the criteria it applies in the appointment of National Standards Bodies (NSBs); its role in registering unit standards and qualifications; and above all, through accredited Education and Training Qualifications Assurers (ETQAs); which would have to ensure that providers deliver specified validated learning programmes which meet national and provincial criteria. Standards for education and training should be formulated and registered with SAQA in terms of learning outcomes and appropriate assessment criteria. Quality Assurance stands on three important pillars. These pillars are:

- Promoting a quality culture to engender an ethos of praise, acceptance of criticism and mutual support.
- Quality control which involves an audit of the nature and standard of service delivery.
- On-going quality improvement where the total quality system, including the process, should be evaluated from time to time (NDE1995b: 17).

The researcher is in agreement with these design principles of C2005. It is necessary to develop an education system that addresses the issues of modern democratic societies. The development of human resources and the promotion of a national identity are all vital to a modern curriculum. The creation of a learner-centred environment that fosters critical and creative thinking, that is relevant and promotes integration is essential to develop learners that are going to make a meaningful contribution to society. In this new milieu it is necessary that quality assurance is controlled, and this is done by SAQA.

3.5 Qualifications - The principles and processes

3.5.1 The South African Qualifications Authority

SAQA was established in October 1995, by the Ministers of Education and Labour and the SAQA Act No. 58 of 1995 outlines the following structural elements:

- The co-ordinating structure, the South African Qualifications Authority.
- Bodies registered by SAQA to set standards in particular fields of learning, generally referred to as National Standards Bodies.

Bodies accredited by SAQA to ensure that the standards set are in fact delivered. These bodies are generally referred to as Education and Training Qualification Authorities (Human Sciences Research Council (HSRC) 1995: 9).

In addition, the Act determines that the Authority shall:

- Oversee the development of the NQF.
- Formulate and publish policies and criteria.
- Oversee the implementation of the NQF.
- Advise the Ministers of Education and Labour (SAQA 1997: 4).

SAQA sets the standards of education outcomes in South Africa. It is responsible for the development of level descriptors for the eight main levels on the NQF and the sub-levels of the GET band levels (this includes Adult Basic Education and Training (ABET), and the school phases , including early childhood education). These descriptors briefly describe the expected levels of competence of learners at the specified levels. National standards bodies, generally referred to as Education and Training Authorities, established by SAQA, oversee the setting of standards in various fields of learning. SAQA has to approve unit standards (see 3.4.11). The SAQA board is representative of the country's major stakeholders in education and training (Van der Horst and McDonald 1997: 4).

The main aim of SAQA is "... to provide for the development and implementation of a National Qualifications Framework ... (which) ... embodies all nationally recognised qualifications and credits opposed to traditional frameworks that intend to organise qualifications within isolated levels, sectors or according to providers of education and training ..." (Olivier 2001: 8).

3.5.2 The National Qualifications Framework

3.5.2.1 The aims of the National Qualifications Framework

The NQF is aimed at reconstructing and developing the current education system into a system that reflects an integrated approach which addresses the learners' and the nation's needs. It is a framework indicating an integrated national framework for achieving and maintaining quality or standards. Quality in this context is expressed in terms of nationally agreed outcomes and performance/assessment criteria which help to provide educational opportunities and to assess whether they have been achieved (NDE 1997f: 14; Van der Horst and McDonald 1997: 74).

Malan (1997: 4) describes the term *framework* as a conceptual frame of reference. In the education and training sense, the term *qualifications framework* is used to refer to a conceptual framework, which describes the requirements for qualifications, outlines procedures and stipulates rules which regulate assessment.

The NQF is such a framework, and sets the boundaries, that is to say, the principles and guidelines which provide a vision, a philosophical base for an organisational structure - for construction, in this case, of a qualification system. Detailed development and implementation is carried out within these boundaries. It is national because it is a national resource, representing a national effort at integrating education and training into a unified structure of recognised qualifications. It is a

framework of qualifications, in other words, of learner achievement (HSRC 1995: 14; NDE 1997a: 6; Van der Horst and McDonald 1997: 74).

3.5.2.2 Basic principles of the NQF

The NQF is based on the following principles which underpin the whole education and training process (included in italics after the definition of each principle is a brief reminder of what the majority of South Africans have experienced to date):

- *Integration*: establish the basis for an integrated approach to education and training as part of human resource development policy aimed at integrating the theory with the practice, and the academic with the vocational.
 - ⇒ *separation by race, age, by mental and manual, theory and practice, academic and technical, and vocational.*
- *Relevance*: be and remain responsive and appropriate to national development needs.
 - ⇒ *there is little match between what is taught in schools and what is required for the world of work.*
- *Credibility*: have national and international value and acceptance.
 - ⇒ *only some certificates and qualifications are accepted and recognised at international and even national levels.*
- *Flexibility*: allow for multiple pathways to the same learning ends.
 - ⇒ *no mechanisms for assessing and recognising non-formal provision or prior learning through life and work experience.*
- *Coherence*: work with a consistent framework of principles and certification.
 - ⇒ *little or no means to establish equivalency across programmes and providers.*
- *Standards*: be expressed in terms of a nationally agreed framework and internationally acceptable outcomes.

- ⇒ *varied differences in standards across different institutions, sectors, enterprises, provinces, and the fragmented national government departments.*
- *Legitimacy:* provide for the participation of all national stakeholders in the planning and co-ordination of standards and qualifications.
 - ⇒ *little or no co-operation or consultation across government departments (education, training and manpower), with little co-operation across industries, enterprises or sectors and little involvement with the state who relied heavily on experts).*
- *Access:* provide ease of entry to appropriate levels of education and training for all prospective learners in a manner which facilitates progression.
 - ⇒ *entry principally by certificate based on years of study and generally restricted by race, sex and age.*
- *Articulation:* provide for learners, on successful completion of accredited prerequisites, to move between components of the delivery system.
 - ⇒ *entry requirements set at provider level with large differences between providers. Change of learning interest generally meant starting again.*
- *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.
 - ⇒ *rather than stepping through a clearly-sequenced series of outcome requirements for higher levels on a learning pathway, learners were required to attain credits and qualifications in ways specified by the particular provider.*
- *Portability:* enable learners to transfer their credits or qualifications from one learning institution and/or employer to another.
 - ⇒ *training generally sector, enterprise or even employer specific, limiting learners because there was no common recognition system.*
- *Recognition of prior learning:* through assessment give credit to learning which has already been acquired in different ways, for example, through life experience.

⇒ *front-end education delivery system whereby learning is regarded as stopping at a particular point in life thereby excluding the possibility of learning in contexts other than the formal system.*

- *Guidance of learners:* provide for the counselling of learners by specially-trained individuals who meet nationally-recognised standards for educators and trainers.

⇒ *guidance and counselling viewed as specialist services and separate from the learning system itself. Services were only available to a minority of learners and at particular points in their career development.*

(HSRC 1995: 11; SAQA 1995: 5-6; NDE 1997f: 14-15)

In short, the NQF is a structure within which the functioning is based on certain key principles by which records of learner achievement are registered to enable national recognition of acquired skills and knowledge, thereby ensuring an integrated system which encourages life-long learning. Its intention is to bring about transformation, implicit in the establishment of the NQF, in the introduction of a new curriculum for South Africa.

3.5.2.3 The objectives of the NQF

The objectives of the NQF are to create an integrated, national framework for learning. Access, mobility and progression are key objectives, as is the need for enhancing quality in education, training and employment (HSRC 1995: 14). Through these objectives, the NQF contributes to the full personal development of each learner and the social and economic development of the nation at large. It provides for the basis of an integrated approach to education and training. These objectives can be summarised as follows:

- To create an integrated national framework for learning achievements.
- Facilitate access to, and mobility and progression within 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 to the full personal development of each learner and the social and economic development of the nation at large.

(SAQA 1997: 2-3; 2000: 3; Vermeulen 2000: 16; Olivier 2001: 8)

According to the HSRC (1995: 93) and Malan (1997: 4), the main purpose of the NQF is deemed to be the standardisation and portability of credits and qualifications. The premise on which standardisation rests, and on which national qualifications frameworks are based, is that standards (the desired results of the education process) should be nationally prescribed, but the means (learning content and processes) employed to reach those standards/goals should be determined regionally, locally or even institutionally. In practical terms this would mean that the NQF could prescribe the learning outcomes, but that individual education departments, or even institutions of learning, such as schools, could decide for themselves how they want to go about supporting learners in their efforts to attain those standards (Malan 1997: 4). This view supports C2005's origins in OBE (see 2.3.5.1).

The NQF as described above, will only function effectively if there is a change in the existing educational system. It has taken a new and radical approach to teaching and learning which is outcomes-based (see 2.3.4). This change from traditional content-based methods to an outcomes-based approach is supported by the newer, progressive, education theories of teaching and learning, which move away from traditional transmission models as described in section 2.3.4. These traditional models emphasise the image of learners as empty vessels which must be filled with knowledge; or they see the learners as passive recipients of knowledge who do little more than learn facts by rote and regurgitate them parrot-fashion (see 2.3.4). By contrast an outcomes-based approach gives direction to learning by focusing on intended learning outcomes rather than the mastering of facts. The NQF sees these

outcomes as balanced and integrated national standards that encourage holistic development of skills, values and attitudes (HSRC 1995: 90-91; NDE 1997a: 6).

3.5.2.4 Qualifications by self-determination

Credits are awarded by the NQF whenever a specific learning outcome has been achieved. Learners will, over the course of time, be allowed to accumulate credits from a variety of institutions (including their workplace), until they have enough credits to qualify for a qualification at a specific level of the NQF. In theory, the learners will not have to write an examination in traditional subjects at the same time, at the same institution, in order to obtain a qualification. Learners can themselves decide where and when they want to study and when they want to present themselves for assessment. Even if learners have had no formal education, it would be possible for them to build up NQF credits, if they are able to demonstrate the necessary credits. This is known as prior learning (HSRC 1995: 8; Malan 1997: 7).

The concept of a national qualifications framework is not unique to South Africa. In line with other countries, many African countries have adopted qualifications frameworks. Although each of these have a different emphasis, they all nevertheless have certain common features such as:

- The main purpose of the qualification framework is to standardise qualifications.
- Learners progression through an integrated system is governed by accumulation of learning credits.
- Each credit is a step towards a qualification level.
- Each qualification level has specific, laid down learning criteria described in the form of unit standards.

Unit standards should be arranged at levels corresponding to the complexity of the competence being described.

- A unit standard consists of the following elements: learning outcomes, assessment criteria, performance indicators and credits.

- o Learners can move through the system at different rates and by different routes to obtain credits (HSRC 1995: 16; Malan 1996: 172; 1997: 4).

Table 3.1 The structure of the NQF

NQF LEVEL	BAND	TYPES OF QUALIFIATIONS AND CERTIFICATES	
8	Higher Education and Training Band	Doctorates	
		Further Research Degrees	
7		Higher Degrees	
		Professional Qualifications	
6		First Degrees	
		Higher Diplomas	
5		Diplomas,	
		Occupational Certificates	
Further Education and Training Certificates			
4	Further Education and Training Band	School/College/Training Certificates	
		Mix of units from all (NGOs)	
3		School/College/Training Certificates	
		Mix of units from all (NGOs)	
2		School/College/Training Certificates	
		Mix of units from all (NGOs)	
1 = General Education and Training Certificates = 4			
	General Education and Training Band	Senior Phase	ABET Level 4
		Intermediate Phase	ABET Level 3
		Foundation Phase	ABET Level 2
		Pre-School	ABET Level 1

(HSRC 1995: 20; Malan 1997: 5-6; NDE 1997e: 20)

3.5.2.5 The structure of the NQF

Table 3.1 represents the structure of the NQF (HSRC 1995: 20; Malan 1997: 5-6; NDE 1997e: 9). The figure shows that the NQF organises education and training into eight different levels at which learners can obtain credits. The different levels are grouped into bands or phases. These bands represent the three main phases of education and training.

3.5.2.5.1 General Education and Training

The lowest qualification level of the NQF is level 1 and it is represented by the GET band. This band is composed of pre-school education, formal schooling and Adult Basic Education and Training (ABET), and, in terms of formal schooling, represents ten years of compulsory schooling, from Grade 0 to Grade 9. It is divided into three phases that represent different levels of learner competence. The first phase is the *Foundation Phase* (Grades 0, 1, 2 and 3); the second is the *Intermediate Phase* (Grades 4, 5 and 6) and the third the *Senior Phase* (Grades 7, 8 and 9). This study specifically relates to the Senior Phase and at this level learners are increasingly able to reason independently of concrete materials and experience. They are able to engage in open argument and are willing to accept multiple solutions to single problems (see 2.3.5.3.2). The learning content offered in this phase would, therefore, be less contextualised, more abstract and more area specific than in the previous two phases. At the same time there should be clear evidence that the learners are being prepared for life after school, that is to say, in the world of work, at institutions for further learning and for adult life in general. Learning programmes should create opportunities for learners to be informed about career opportunities, about ways and means of realising their expectations for the future and about their rights and responsibilities as citizens in a democratic, multi-cultural society.

The first exit qualification of the NQF is awarded at the end of the GET phase on completion of Grade 9. According to NQF regulations all school leavers are required to demonstrate competence in the specified unit standards to qualify for a General Education and Training Certificate (Clarke 1997: 2; NDE 1997e: 5-7; Van der Horst and McDonald 1997: 4; Vermeulen 1997: 24-25; 2000: 18).

3.5.2.5.2 Adult Basic Education and Training

ABET is also divided into different levels. Adult learners, as with learners in formal schooling who achieve Grade 9, will also qualify for the General Education and Training Certificate. Traditional schools are responsible for formal education, but in the case of ABET, private and semi-private institutions and the workplace (on-the-job-training) can also be responsible for education and training (Clarke 1997: 2, 24-25; NDE 1997e: 5-7; Van der Horst and McDonald 1997: 74; Vermeulen 2000: 18).

3.5.2.5.3 Further Education and Training

Further Education and Training (FET) comprises Levels 2, 3 and 4 of the NQF. This band and its levels represent Grades 10, 11 and 12 of formal schooling and also non-compulsory, pre-tertiary education that can lead to and integrate with academic and technical education. At this level learners should be prepared for higher education, vocational education, careers and self-employment. On completion of Level 4 (the equivalent of Grade 12), the learner is awarded the Further Education and Training Certificate. Institutions that are responsible for education and training in this band are schools (private and government), colleges, non-governmental organisations (NGOs) such as private and industrial organisations, and the workplace (Clarke 1997: 2; NDE 1997e: 5-7; Van der Horst and McDonald 1997: 74; Vermeulen 1997: 24-25; 2000: 18).

3.5.2.5.4 Higher Education and Training

The Higher Education and Training (HET) band of the NQF represents all learning that takes place in institutions that award diplomas, degrees, and professional, technical and occupational certificates. Qualifications in this band vary from Diplomas (Level 5), Occupational Certificates (Level 6), Higher Diplomas, First Degrees, Professional Qualifications, and Higher Degrees (Level 7) up to further Research Degrees and Diplomas (Level 8) obtained from tertiary institutions such as universities, community colleges and technikons (Vermeulen 2000: 19).

The emphasis of this study falls on Grades 8 and 9 of the GET phase. These two grades represent the first two years of secondary school education (the 'old' Standard 6 and 7) and are the areas in which the researcher specifically exercises instructional leadership. As has been explained in section 3.5.2.3, the NQF adopts an outcomes-based approach to education and training and in terms of the GET phase, the outcomes-based curriculum, known as C2005, follows on from this.

OBE has been fully discussed in Chapter 2 and the next section of this study will concentrate on the design features of C2005.

3.6 Curriculum 2005

The introduction of C2005 into South Africa is possibly the most significant curriculum reform in the last century. It was deliberately intended to overturn the legacy of apartheid education and create a new direction for education for the twenty-first century. It was the first curriculum statement of the new democratic government and signalled a dramatic and innovative break from the past. The new curriculum moves away from a narrow input-based, content bound, norm-referenced system to one which is outcomes based, content independent, life-skill orientated and criterion-referenced (Vermeulen 2000: 9-14; Olivier 2001: 29). Chisholm (2000:

1) maintains that the curriculum would no longer shape and be shaped by narrow visions, concerns and identities and would no longer represent the views of one particular group at the expense of another. The NDE maintains that C2005 is regarded as a key project in the transformation of South African society and states that C2005 is directed towards 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 ... " (NDE 1997e: 3).

Key moments in the emergence of C2005 include:

- The syllabus revision and subject rationalisation processes of the National Education and Training Forum immediately following the election in 1994.
- The development of the NQF prior to, and immediately after, the election resulting in the establishment of the South African Qualifications Authority in October 1995, which became operational in 1996.
- The endorsement of the principles of the NQF in the White Paper on Education in Training (1995): it argued that successful modern economies and societies require citizens with a strong foundation of general education with the desire and ability to continue to learn, adapt to, and develop new knowledge, skills and technologies, move flexibly between occupations, take responsibility for personal performance, set and achieve high standards and work cooperatively.
- The creation of two curriculum advisory bodies (the National Curriculum Development Committee in 1995 and the Curriculum Management Committee in 1996), which initiated two investigations that produced a new curriculum framework for the GET.
- The approval by the Council of Education Ministers of the new curriculum framework produced by the National Curriculum Development Committee in February 1996.
- The operationalisation of the new national curriculum process in the General Education and Training Phase in 1996.

- The preparation of illustrative learning programmes and other documents and materials as well as trainers in 1997.
- The implementation of a national pilot, as well as a national in-service education programme for educators at 30 schools between 1 July and 31 December 1997.
- Implementation in 1998 (Chisholm 2000: 20).

3.6.1 The content-based curriculum developmental process

To fully understand the origins, design and implementation of C2005, it is necessary to place it in context by briefly reviewing traditional, content-based curriculum development.

The traditional process of curriculum development in South Africa starts with the identification of a number of subjects and then the formulation of goals for these subjects, followed by selection and outline of content needed to achieve the educational purpose or goal of each subject. Such curricula focus on the mastering of knowledge and thinking skills which learners have to prove when reaching the end of the syllabus (Olivier 1998: 31; 2001: 86).

In this way, curriculum design is based on and directed by the intrinsic classification of the specific subject. The content of the subject is shaped into specific clusters and a hierarchy along the lines of the intrinsic classification of the content. For example, the subject Biology is unpacked into the following syllabus themes, such as reproduction, excretion, gaseous exchange, and so on. These syllabus themes are then again sub-divided into sub-themes, until the whole syllabus is grouped to fit into class periods of 30 to 45 minutes each. The content that is presented during a series of lessons varies between uncomplicated information to more difficult concepts and abstractions, normally building up to higher levels of complexity before moving on to a new theme and repeating the cycle (Olivier 1998: 31; Olivier 2001: 86). With this approach, the content of the syllabus is organised in a linear and

progressive format as per school year. The level of complexity and understanding increases from school entry to school leaving. From a macro point of view, the contents of curricula are also arranged in a hierarchical relationship from pre-school to school; to technikon and university levels, where the overall goals and objectives, as well as the nature and extent of the content of the syllabi indicate the level and appropriateness of the learning content for a specific level (Olivier 1998: 31; 2001: 87). According to Olivier (1998: 32), these syllabi are rigidly developed, are non-negotiable, allow no room for learner creativity, problem-solving, innovation or cross-curricular enrichment. The main aim of this approach is the development of all the attributes and abilities of the learner, with the emphasis on intellectual development, based on mastering content within prescribed curricula frameworks. This content-based curriculum reflects the body of knowledge, which must be covered in a certain time span. The learning process is therefore content and time driven, and not learner and achievement driven (Olivier 1998: 3; 2001: 87).

3.6.2 The run-up to a new curriculum for South African schools

During the late 1960s to the early 1980s, a number of countries, including Britain, France, Australia and New Zealand, started paying attention to what children learned at school and what was required in the real world. Although these countries did not arrive at the same solutions to the problem, it was nevertheless evident that in all of these countries it was necessary to integrate education and training through national, outcomes-based curricula and a national qualifications framework (Malan 1996: 171).

3.6.3 The origins of C2005.

Chisholm (2000: 16) sees C2005 as having three distinct sources, each with their own lineage and own specific contribution to the conceptualisation and design of C2005. These are:

- OBE.
- A philosophy of learner-centred education.
- An approach to the integrated and non-disciplinary nature of knowledge.

The implication of each of these sources will be discussed in the following section.

3.6.3.1 The foundations of C2005 in OBE

3.6.3.1.1 The distinction between OBE and C2005

The relationship between OBE and C2005 is not immediately clear and to the uninformed layman the differences are not immediately apparent as the two terms are often (incorrectly) used interchangeably. The following section will attempt to reveal some differences between the two. There is a strong relationship between C2005 and the principles of OBE as outlined by Spady, as evidenced by the liberal use of Spadyan terms in policy documents. Official policy documents draw heavily on outcomes-based terminology and frequently quote verbatim from Spady's writings. The first official document on C2005 from the NDE, *'Curriculum 2005: Lifelong Learning for the 21st Century'* quotes the following: "... according to Spady outcomes are high-quality, culminating demonstrations of significant learning in context ..." and "... the development of the National Qualifications Framework hinges on an outcomes-based approach to education and training which has as its starting point the intended outputs as opposed to the inputs of traditional curriculum-driven education and training ..." (NDE 1997a: 18).

The NDE policy documents for the Foundation, Intermediate and Senior Phases use the term 'outcomes-based education' in describing the development of the outcomes-based curriculum (NDE 1997b: 15, NDE 1997c: 17, NDE 1997d: 19). C2005 and OBE are in turn also linked with the vision and goals of the NQF and SAQA. The NQF uses and defines the term outcome as "... that segment of a unit standard which is a statement of the required learner capabilities that must be demonstrated ..."

(HSRC 1995: 2) and uses the Spadyean term 'learner centred' (HSRC 1995: 12). In describing the instructional approach "... rote learning ..." is done away with and "... national standards will be expressed only as outcomes ..." (HSRC 1995: 29). Spady's division of outcomes into knowledge, skills and attitudes are reflected by the HSRC (HSRC 1995: 42) in describing performance, by stating that performance does not occur in a vacuum "... people act with or in relation to other people ...". In describing assessment, the HSRC (HSRC 1995: 50) document maintains that "... assessment of learning performance must take place in context ..." and a demonstrable performance must be assessed (see 3.6.4; 3.7.6.5; 3.7.6.6).

In Chisholm (2000: 6), the SAQA submission to the Chisholm Commission defines the NQF as a "... systematic framework for organising education and training around the notion of learning outcomes ... OBE is seen as an approach to education ...", while C2005 is seen as "... the curriculum that has been developed within an outcomes-based framework and is in the process of being implemented in schools ...".

Chisholm (2000: 7), quoting from submission reports to her Review Committee, found that, with few exceptions, C2005 is based on an outcomes-based approach, and is positively defined as "... a results based, learner centred, experiential and integrated approach using new methods such as group work and continuous assessment ..." (Chisholm 2000: 16)

3.6.3.1.2 The concept and the mean of conveyance

It is clear therefore that the terms OBE and C2005 cannot be used interchangeably. OBE is a philosophy of education, drawing heavily on the ideas of the architect Spady. OBE offers no advice on how to achieve outcomes. It has no prescriptive methodology for instruction or management and no advice on how to use resources. Spady's ideas have been adapted and used to design a South African curriculum using OBE as an approach and this curriculum is called C2005.

The use of Spady's ideas in the design of C2005 is intentional and deliberate since OBE is designed so that all learners may succeed. Fitzpatrick (1991: 19), Capper and Jamison (1993: 428) and Killen (1997: 5) all argue that OBE is seen as a means of meeting the needs of all learners, regardless of their environment, ethnicity, economic status or disabling conditions (see 2.3.3.2). In other words, C2005 has an obvious political agenda that is used to drive change. The transformational outcomes of the South African version of OBE emphasise outcomes that are related to learners future life roles as outlined in the NDE document introducing C2005, stating that "... a clear emphasis on critical outcomes that will ensure that learners gain the skills, knowledge and values that will allow them to contribute to their own success, as well as to the success of their family, community and the nation as a whole ..." (NDE 1997e: 10).

OBE makes a distinction between inputs and outputs and this impacts directly on C2005. Outputs are centrally designed and prescribed, while inputs are discretionary, and generated and managed locally (Chisholm 2000: 17). Inputs are what educators and learners bring to learning. These can vary greatly and are governed by many factors such as the quality of teaching, the availability of textbooks and other resources and cultural differences. What matters is the quality of the output, and that the content and manner of teaching should be as little prescribed as possible. For this reason C2005 is generally seen as promoting equity, and therein lies its political attraction, in other words, C2005 promotes equity through the statement of outcomes, but takes into account differing inputs. Chisholm (2000: 17) argues that this does not necessarily follow in that outputs depend heavily on input and that the success of OBE therefore depends on the quality of the educators, their content knowledge, their facility with different teaching methods and their access to learning programmes and textbooks.

3.6.3.1.3 National influences

Certain districts in the United States of America have adopted an outcomes-based approach to educational reform. South Africa and Australia have chosen to implement OBE in a wider context at national level to transform education. Australia took an OBE approach when the government developed a set of eight competencies that were intended to promote the skills necessary to enhance their educational and economic competitiveness and support the conveyance of general and vocational education. These Australian key competencies correspond very closely to South Africa's critical outcomes (Killen 1997: 2).

By contrast, the new South African curriculum takes as its starting point a clear political agenda and the need to transcend the curriculum of the past, which perpetuated race, class, gender and ethnic divisions and "... emphasised separateness, rather than common citizenship and nationhood ...". (NDE 1997c: 1). The new curriculum is directed towards 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 ..." (NDE 1997c: 1).

3.6.3.2 Learner-centred education

Apart from drawing on the philosophy of OBE, C2005 also draws philosophically on progressive, learner-centred education. A learner-centred approach arose out of the progressive policies adopted by the liberal universities and the English private schools. The learner-centred approach was linked to an egalitarian transformative project for South African education in the 1980s and the result, *The People's Education*, was prepared as the alternative to apartheid education. The main features of *People's Education* were absorbed into contemporary policy (Kraak 1999: 23) and the reader is referred to section 2.2 for a full explanation.

The researcher can vouch for this, having taught in an English private school during the 1970s and the early part of the 1980s. The approach was very much learner centred and the United Kingdom Cambridge 'A' level courses were followed. These encouraged co-operative learning, educator-learner dialogue, enquiry methods and educator facilitation. These instructional methods were in contrast to the government schools in the area and were considered 'progressive' by government schools.

3.6.3.3 An integrated and non-disciplinary approach

An integrated and non-disciplinary approach is the answer to a call from society to produce school leavers who possess skills as a preparation for life and a knowledge that is not packaged in the form of discrete traditional school subjects. The move towards the integration of education and training was also a strong influence and the selection and definition of the eight learning areas of C2005 is a result of these influences. The strong integration prescribed by C2005 requires thematic continuity and this is prescribed by the phase organisers which will be discussed later.

This vision is captured by the learning goals formulated by SAQA and the following section discusses the formation of SAQA and the functions of the NQF.

The previous sections of this study have detailed various aspects of curriculum development and design, especially as they relate to the development and design of C2005. The next section will take a detailed look at the structure and organisation of C2005.

3.6.4 The structure and organisation of C2005

In line with the requirements as specified by the NQF, the formal schooling phases of the GET band use C2005 as the curriculum model which adopts an outcomes-based approach to education and training (see 2.2.3). Learning outcomes, in the context of OBE, are used to describe the intended outcomes of a learning programme. These

outcomes include demonstrations of competence, the understanding of knowledge, tangible evidence of skills, and signs that values and attitudes have been acquired (Malan 1997: 11). Learners must be able to demonstrate that they understand the outcome and be able (ideally) to demonstrate the outcome in an authentic, real life context (see 2.3.3.6.9; 2.3.11.3.2) (Malan 1997: 31, NDE 1997a: 18-19, NDE 1997e: 12). Outcomes form the cornerstone of C2005 and influence the entire structure and design of the curriculum.

3.6.4.1 Critical outcomes

The learning outcomes as specified by C2005 fall into two kinds, namely generic, critical cross-field outcomes and specific outcomes. These differ in the breadth of the context to which they apply. Critical cross-field outcomes express the intended results of education and training in the broad sense whereas specific outcomes express the results of the eight learning areas (see 3.6.4.2) (NDE 1997a: 18; NDE 1997e: 12-13).

In 1996 SAQA identified 7 critical outcomes and 5 developmental outcomes that serve as the fundamental basis for all education and training. These are the 'broad, generic cross-curricular outcomes' which underpin the learning process in all its facets and which are adopted by SAQA (NDE 1997a: 19-20). They are the working principles and as such direct teaching, training and education practices and the development of learning programmes and materials and should be used to guide classroom methodology. These outcomes are intended to ensure that learners gain the skills, knowledge and values that will "... allow them to contribute to their own success as well as to the success of their family, community and the nation as a whole ..." (Jacobs 1996: 35-36; Clarke 1997: 4; NDE 1997a: 19-20).

They are also known as essential or generic outcomes and they express the intended results of education and apply to every learning situation at every level.

They are not restricted to any specific learning context, but they guide the formulation of specific outcomes in individual areas of learning at all levels of the NQF. Jacobs (1996: 36) refers to the seven critical outcomes as 'true' outcomes which are the intrinsic abilities which learners must acquire to become fully functional individuals who "... maintain civilised norms, lead rewarding lives and create a good society ...".

What the critical outcomes, in conjunction with SAQA's additional five developmental outcomes achieve is not only to target higher order learning goals, but to tie the skill components of these goals to the need to understand the knowledge principles underlying these skills, and to relate knowledge and skills to the social, political and economic contexts in which they are acquired and applied. In this sense, SAQA embraces elements of both the progressive and radical competence modes.

Vermeulen (2000: 20) explains the critical outcomes as follows:

- Critical outcomes are working principles, and as such they direct teaching, training and education practices and the development of learning programmes and materials.
- Curriculum development should begin with the formulation and agreement of essential outcomes and these should inform all subsequent curriculum development processes.
- Because of their generic nature, essential outcomes should not be broken up into more detailed level descriptors for each education and training phase or band.

To summarise, critical outcomes are general principles that you can apply and understand and which matter in all areas of learning, such as communicating and problem-solving. They are not linked to a particular subject or course. They are cross-curricular, broad generic outcomes that inform teaching and learning and are a very important part of the entire education and training system.

The following seven critical cross-field outcomes are adopted by SAQA and they determine that learners should be able to:

1. identify and solve problems and make decisions using critical and creative thinking;
2. work effectively with others as members of a team, group, organisation and community;
3. organise and manage themselves and their activities responsibly and effectively;
4. collect, analyse, organise and critically evaluate information;
5. communicate effectively using visual, symbolic and/or language skills in various modes;
6. use science and technology effectively and critically, showing responsibility towards the environment and the health of others;
7. demonstrate an understanding of the world as a set of related systems by recognising that problem-solving contexts do not exist in isolation.

(Spady and Schliebush 1999: 60)

Jacobs (1996: 36) refers to these seven critical outcomes as 'true' outcomes which are the "... *intrinsic* abilities which learners must acquire to become fully functional individuals who maintain civilised norms, lead rewarding lives and create a good society ...".

In order to contribute to the full personal development of each learner, and the social and economic development at large, it must be the intention underlying any programme of learning to make an individual aware of the importance of:

8. reflecting on and exploring a variety of strategies to learn more effectively;
9. participating as a responsible citizen in the life of local, national and global communities;

10. being culturally and aesthetically sensitive across a range of social contexts;
11. exploring education and career opportunities; and
12. developing entrepreneurial opportunities.

Jacobs (1996: 36) refers to these five outcomes as the 'nice-to-have' or 'awareness' outcomes which are "... *insights* that learners should gain for full personal, social and economic development ...".

For the purposes of this study, the last five outcomes will be referred to as the developmental outcomes. Both the critical and developmental outcomes describe broad, long-term competencies that are required of learners and essentially describe guidelines of what and how teaching must be carried out. It is evident that these outcomes represent essential life-role competencies that are required for good citizenship (see 2.3.1.2). Because these outcomes are so broad in their description, it is necessary that there be more specific guidelines for what needs to be taught in each of the eight learning areas. C2005 therefore details 66 specific outcomes that give an overview of what knowledge, skills, values and attitudes are required for each of the learning areas, and as such, guide teaching and learning.

It is interesting to note that Spady, the architect of OBE, suggested a clustering of the critical and developmental outcomes in order to more easily understand their meaning. He considers the seven critical and five developmental outcomes to be a single grouping of twelve outcomes. He then clusters them into three groups that relate to the general structure of the Demonstration Mountain, that is to say traditional, transitional and transformational outcomes (see 2.3.11). This clustering is as follows:

- *Life-role applications* where the learning demonstration takes place in the real world as the learner carries out fundamental life responsibilities in those real

world settings. The critical and developmental outcomes that are associated with this concept are grouped as responsible self-management, responsible civic action, exploring educational and career opportunities and developing entrepreneurial opportunities.

- *Underlying abilities* where outcomes relating to problem-solving, information-based decision making, effective team collaboration and effective communication are grouped.
- *Process enablers* include the outcomes relating to broad systems thinking, effective learning strategies and cultural sensitivity (Spady and Schlebusch 1999: 61-62). The life-role applications help learners to live in the real world; the process enablers help learners to view the world in such a way that other abilities are improved and the underlying abilities build complex skills required to fulfil life roles successfully. Spady and Schlebusch (1999: 64) maintain that the most significant changes in education that will result from implementing C2005, will emanate directly from the critical outcomes that are clustered under life-role applications (see 2.3.1.2).

3.6.4.2 The eight learning areas

In the old education dispensation in South Africa, learners had to study discrete subjects such as Mathematics, General Science, History, Geography and so forth. The new curriculum however, is strong on integration (see 3.3.2; 3.4.4; 3.6.3.3) and the traditional subjects as mentioned above have been combined together into eight learning areas which form the basis of C2005. Each of these learning areas have a number of specific outcomes that detail how each respective learning area will meet the criteria as detailed by the critical and developmental outcomes. This integration is in line with the requirements of C2005 that learners must be skilled in life-role performances that equip them for good citizenship. Teaching and learning outcomes in C2005 are therefore based on the application of knowledge, skills, values and attitudes (NDE 1997a: 18-19).

The eight learning areas as detailed by C2005 are as follows (NDE 1997a: 14-18; NDE 1997b: 19-20; NDE 1997c: 8-9; NDE 1997d: 10; Clarke 2000: 4).

- Language, Literacy and Communication (LLC)
- Mathematical Literacy, Mathematics and Mathematical Science (MLMMS)
- Human and Social Sciences (HSS)
- Natural Sciences (NS)
- Technology (Tech)
- Arts and Culture (AC)
- Economic and Management Sciences (EMS)
- Life Orientation (LO)

Each of these eight learning areas has a number of specific outcomes, assessment criteria, performance indicators, range statements and expected levels of performance. It is necessary to describe these in a fair amount of detail since the substance of these issues is essential to many of the staff development programmes that instructional leaders should initiate.

3.6.4.3 Specific outcomes

Specific outcomes describe the skills, knowledge, values and attitudes that learners need to master within the context of a specific learning area at a specific level of the NQF. It is these outcomes and not the critical or developmental outcomes that determine what must be taught and what learning must take place within a specific learning programme. The specific outcomes were derived from the learning areas and refer to the "... specification of what learners are able to do at the end of a learning experience ..." and include "... skills, knowledge and values, which inform the demonstration of the achievement of an outcome or set of outcomes ..." (NDE 1997b: 17). The specific outcomes are not grade specific. One of the main tenets of OBE is that assessment must be open and transparent (see 2.3.8.3.1; 3.6.7.5) and

the specific outcomes detail the level of complexity and scope of this learning (NDE 1997a: 20).

Specific outcomes are:

- Achievements learners should be able to demonstrate in a specific context in particular areas of learning at a specific level.
- A comprehensive package of achievements to be accomplished in order to constitute a learning programme.
- The basis for assessing the progress of learners.
- The basis for selecting subject matter needed to achieve outcomes.
- The basis for selecting cognitive learning objectives and technical skills which enable learners to achieve outcomes.

Together with assessment criteria, supportive towards the achievements of unit standards, credits and qualifications. (Olivier 1998: 17-18)

Each learning programme has context-linked specific outcomes which adhere to supporting the critical outcomes and each specific outcome has three to four assessment criteria. The assessment criteria in turn each have range statements and performance indicators (see 3.6.4.2.1.2 and 3.6.4.2.1.1).

3.6.4.3.1 Assessment criteria

Each specific outcome has three to four assessment criteria. They establish the criteria against which a learner is assessed to have achieved the specific outcome. They are the statements of the sort of evidence that educators need to look for in order to decide whether a specific outcome has been achieved. The criteria indicate, in broad terms, the observable processes and products of learning which serve as culminating demonstrations of the learner's achievements. The assessment criteria do not themselves provide sufficient details of exactly what and how much learning marks an acceptable level of achievement of the outcome. For this reason the

assessment criteria are explained and detailed in the performance indicators (NDE 1997d: 13).

3.6.4.3.1.1 Performance indicators

Each assessment criterion also has performance indicators which provide details of the content and processes that learners should master as well as details of the learning contexts in which the learner will be engaged. They allow statements of the quality of achievement, that is, whether the achievement is at the level required or whether the learner has surpassed this level (NDE 1997b: 18).

3.6.4.3.1.2 Range statements

Each assessment criterion is described in terms of range statements which indicate the scope, level, depth and parameters of the achievement. They include indications of the critical areas of content, processes and parameters of achievement the learner should engage in, in order to reach an acceptable level of achievement. The range statement thus extends and explains the assessment criteria. The range statements provide guidelines but make provision for multiple learning strategies, for flexibility in the choice of specific content and processes and for a variety of assessment methods. They therefore do not restrict learning to specific lists of knowledge items; they also ensure that there is a balance between knowledge, skills, values and attitudes. Although it is possible that assessment criteria can be the same for different grades, it is the range statement that increases the level of difficulty from grade to grade and leads the learners step by step to higher competence (NDE 1997b: 19). Range statements thus describe the difficulty level of the learning content that should be learned and the skills learners are expected to display with respect to a specific outcome in a specific phase. Range statements help educators to understand in which ways the work should be made easier in the Foundation

Phase, more difficult in the Intermediate Phase and even more difficult in the Senior Phase (Jacobs and Chalufu 1996: 119).

3.6.4.4 Expected levels of performance

These are written for each learning programme and for each grade. They are expected to inform parents, educators and learners in transparent and rigorous ways what is considered quality work, what to aim for and whether the learners' performance or products measure up to valid and credible standards nationally.

3.6.4.5 Phase organisers

C2005 is an integrated curriculum (see 3.3.2; 3.6.4.6). Not only are traditional subjects grouped into learning areas, but all teaching and learning integrates the eight learning areas towards the critical outcomes. The main aim of this integration is to prepare learners for the real world outside the classroom and to provide learners with the opportunities to develop to their full potential as active, responsible and fulfilled citizens who can play a constructive role in a democratic, non-racist and equitable society (NDE 1997d: 26; Vermeulen 2000: 42). The phase organisers are tools used for grouping the specific outcomes, and in this way, they are expected to aid planning and integration. They ensure that important aspects in the holistic development of learners receive adequate attention. The phase organisers are broad themes or developments that provide the necessary focus for the facilitation of planning, organisation and assessment (Vermeulen 2000: 41). The following phase organisers have been selected for the three phases of the GET band:

Table 3.2 Phase Organisers of the General Education and Training Band

PHASE ORGANISERS			
	Foundation Phase	Intermediate Phase	Senior Phase
1	Communication in our lives	Communication: The learner as communicator	Communication
2	Personal development	Personal development of the learner	Personal Development and Empowerment
3	Environment	The learner and his/her environment	Environment
4	Health and Safety	Inquiry: The learner as inquirer	Economy and Development
5	Society	Creative and active participation of the learner	Culture and Society (including Citizenship)
6	The learner as entrepreneur		

(Jacobs and Chalufu 1996: 16; Vermeulen 2000: 42).

3.6.4.6 Programme organisers

The programme organisers represent broad groupings of the specific outcomes and can be interpreted in many ways. They are sub-themes or sub-topics derived from the phase organiser (Jacobs and Chalufu 1996: 117). In order to ensure that important areas in the holistic development of the learner be covered, programme organisers may be chosen by educators themselves. They should represent themes or issues from everyday life to reflect local and social priorities. These programme organisers help educators to plan a series of teaching and learning activities that will

assist learners in understanding the respective specific outcomes. Just as the phase organisers differ from phase to phase, so do the programme organisers (NDE 1997d: 18; Vermeulen 2000: 42). In the Senior Phase policy document of the Free State Department of Education, for example, the following programme organisers are suggested: housing, the world of work, living with each other and health and recreation. These can be changed as needs and wants change (FSDE 1999b: 139-143).

3.6.4.7 Learning programmes

Learning programmes are the vehicles through which the curriculum is implemented at schools. They are sets of learning activities in which the learner will be involved while working towards the achievement of one or more sets of specific outcomes (FSDE 1999a: 33-36). They help to develop a comprehensive learning experience and enhance integration between learning programmes (Vermeulen 2000: 44). These learning programmes include learning outcomes, guidelines for assessment, specific learning content, resource material and advice on teaching approaches (NDE 1997a: 22). They are thus the administrative and organisational issues related to lesson planning. Jacobs and Chalufu (1996: 112-113) describe a learning programme as a study course indicating the real-life events and activities that take place in order to obtain a qualification. The NDE (1997a: 22) cautions that, since outcomes are informed by knowledge, skills, values and attitudes that are demonstrated within specific contexts, it is necessary that educators take the process further than the mere statement of desired outcomes and performance criteria. From the teaching and learning point of view, it is necessary that the educator help the learners form a clear picture of what is needed from them to demonstrate competence in the outcomes of the learning programme. This demands an integrated approach to learning, which in turn demands that educators are aware of what the focus is of learning areas, other than their own (Van Tonder 2000: 188). Provincial authorities will be free to develop their own learning programmes

according to nationally agreed outcomes to meet local and individual needs (NDE 1997a: 22).

When planning a learning programme with its associated specific outcomes, phase organisers and programme organisers, it is necessary to use a *development matrix*. This matrix is essentially a grid used for planning that plots the phase organisers, programme organisers and learning areas against each other on a set of axes that identifies the specific outcomes and assessment criteria that are being addressed in each learning area. The matrix then forms an integrated whole giving an overall picture for a number of learning programmes (FSDE 1999b: 144).

The co-ordination of a developmental matrix is highly complex and therefore this is one of the main responsibilities of the instructional leader (see 4.7; 6.6.2.2.5).

3.7 Assessment in C2005

Assessment practices in C2005 are perhaps the most difficult issues that educators have to deal with. Assessment changes from norm-referencing to criterion referencing, and is formative and continuous, the idea being to develop and guide the learners on their way to achieving a learning outcome. Assessment is not a separate part of a learning experience, it is integrated throughout the experience. It is therefore necessary at this point in the study to discuss assessment in general and then focus on the newer forms of assessment used in C2005. It goes without saying that the instructional leader needs to be completely *au fait* with assessment in a C2005 environment in order to guide staff.

3.7.1 Introduction

Instruction or teaching is fundamentally concerned with the exchange of information and assessment related to the quality of the information retrieved. The assessment of learner performance plays a significant role in effective teaching and learning and requires the use and understanding of various techniques for measuring learner achievement. Assessment is not merely a collection of assessment gathering strategies; it is a systematic process and includes:

- The identification of learning goals and outcomes.
- The understanding of quality assessment.
- The relationship between assessment and instruction.
- The ability to grade, report, interpret and judge the extent to which goals and outcomes have been attained.

(Du Toit, Khabanjane, Korff, Kotzé, Maschela, Mostert, Van Tonder 2000: 25)

The Department of Education of the North-Western Province (in Vermeulen 2000: 75) offers the following complete definition of assessment: "... assessment is the process of determining whether a candidate is competent, as measured against nationally agreed standards (the outcomes, assessment guidelines and range statements as defined in a unit standard) and may be seen as involving three steps:

- Generating and collecting evidence of achievement.
- Evaluating this evidence against standards.
- Recording the findings of this education ...".

The next section of this study will give a general overview of assessment, compare traditional assessment with OBE assessment, describe assessment in an outcomes-based and C2005 context and give an overview of the newer, alternative forms of assessment.

3.7.2 General features of assessment and a comparison with OBE

Assessment is a comprehensive term which can be defined as the collection, interpretation and use of information to help educators make better decisions. In this context, assessment is more than testing or measurement. There are four essential components in implementing assessment, namely, purpose, measurement, evaluation and use (McMillan 1997:8). *Purpose* refers to the use of the assessment, *measurement* traditionally is the systematic process of assigning numbers to the results of tests, or other types of performance, and is used to measure what learners have written by reading, by watching their performances, by listening to what they say, and in general by using their senses (that is to say, sight, hearing, touch, smell and taste) to gather information, in order to differentiate between various traits, characteristics or behaviour patterns (McMillan 1997: 9; Du Toit *et al.* 2000: 26). Educators' measurements typically relate to tests which are planned measurements.

An *evaluation* is a value judgement concerning quality. It forms a component of assessment and involves an interpretation of the results through measurement; it is a judgement about what different test scores mean. Educators' professional judgements play a large role in evaluation, in other words, what might be a 'good' learner essay to one educator may only be 'satisfactory' to another educator. Assessment is more than correctness, it is also about what is of value (McMillan 1997: 10). McMillan (1997: 10) identifies two determinates to quality evaluation, namely performance standards and scoring criteria. Performance standards are used to determine whether a performance is good or bad. Scoring criteria are the specific behaviours or dimensions that are evidenced to successfully attain the standard. Scoring criteria communicate to learners the educators' expectations of them. In the context of C2005, scoring rubrics are commonly used to determine standards. The final stage of implementing assessment is how the evaluations are *used*. The use of test scores and other information is closely tied to the decisions

educators must make to provide effective instruction and the needs of learners and parents (McMillan 1997: 11).

Traditional assessment approaches have tended to follow the pattern outlined above, that is to say, the learners are told that the *purpose* of a test is to test certain knowledge for the purposes of promotion; these tests are *measured* and assigned marks; the learners are *evaluated* according to these marks (pass or fail); and the *use* of these test scores is the basis of the decision to promote the learner or not, whichever the case may be.

An OBE approach to teaching and learning demands a new way of looking at assessment. For Du Toit *et al.* (2000: 41) it is required to provide new ways of assessing more complex, open-ended and problem-solving tasks in a time of curricular change. Vermeulen sees the new curriculum and its demands requiring a major shift in assessment and explains the difference between traditional assessment and OBE assessment as follows:

Outcomes-based assessment focuses mainly on what:

Learners know and can do	NOT only on what they can't do
Is integral to the teaching	NOT separated from learning
Happens all year through	NOT only at the end of the year
Focuses on applying skills	NOT only on performance isolation
Involves a range of methods	NOT just tests and examinations
Is about understanding	NOT comparison
Is about success	NOT failure
Is about co-operation	NOT competition

(Vermeulen 2000: 75)

For the NDE (1998a: 6) "... a dramatic paradigm shift is needed in assessment practice in South Africa, as a logical and essential part of the transformation

envisaged in the new policies ... the critical characteristic ... is the move from the judgmental to the developmental role of assessment ... this reflects a changing perception world-wide of the nature of assessment and its main purpose ...". The NDE further advocates that alternative strategies of assessment be implemented and should take into account continuous and formative assessment as part of the summative component (NDE 1998a: 7).

3.7.3 The aim of assessment in OBE

In an outcomes-based approach to education, such as C2005, assessment and teaching go hand in hand. The function of assessment is integral and has a developmental and monitoring function to fulfil (NDE 1996: 26; NDE 1997a: 21; Vermeulen 2000: 75). Assessment is not a separate part of a learning experience and is not simply a final and concluding component. Assessment in an outcomes-based system serves a more contemporary, integrated role (Du Toit *et al.* 2000: 42), and it is through this assessment that the effectiveness of the teaching/learning process can be established (NDE 1996: 26; Van Tonder 2000: 198). It is therefore of paramount importance that the assessment procedures specified by C2005 are adopted since the new curriculum requires alternative assessment.

A critical factor in OBE is that learners are required to demonstrate competence in outcomes and are assessed against criteria that indicate whether the outcomes have been attained (Vermeulen 2000: 75). The assessment of a learner's performance is measured against external criteria rather than against other learners' performances or against a customary performance norm (Vermeulen 2000: 75, Van Tonder 2000: 198). This means that assessment in C2005 is criterion-referenced and skills-based rather than norm-referenced and content-based.

Learners who do not meet the specific criteria required to demonstrate competence in the outcome must be afforded the opportunity for re-assessment when they are

ready. Remediation or additional support may be necessary for learners who continually fail to demonstrate competence (see 2.3.5.2). This can place an additional load on already over-burdened educators (NDE 1996: 26).

The clear, unambiguous statement of learning outcomes is the starting point for quality teaching and learning interactions. Assessment of these outcomes plays a major role in the continuous monitoring of learners' progress towards these outcomes and provides information to educators in respect of any learning problems that learners may be encountering. In this sense, assessment has a developmental and monitoring function. It is through assessment that the efficacy of the teaching and learning process can be evaluated. Feedback from assessment informs teaching and learning and allows for the critique of outcomes, methodologies and materials (Vermeulen 2000: 76) and more. At the same time assessment needs to determine whether learners have demonstrated competence in outcomes so that credits can be awarded, and in this sense, assessment is summative (NDE 1996: 26).

3.7.4 Assessment categories and requirements

The policy document on assessment for the GET bands of C2005 puts forward a number of principles that are required in an OBE approach to assessment. The policy maintains that effective and informative assessment should:

- Have clear, direct links with the critical and specific outcomes.
- Be integral to teaching and learning.
- Be balanced, comprehensive and varied.
- Be valid and fair.
- Engage the learners.
- Value the judgement of the educator.
- Be time efficient and manageable.
- Recognise individual achievements and progress.

- Involve a 'whole school' approach.
- Actively involve parents.
- Convey meaningful and useful information.
- Cater for learners with special educational needs.
- Be bias free and sensitive to the gender, race and cultural backgrounds and abilities of learners.
- Improve the quality of learning.
- Be diagnostic (NDE 1998a: 12).

In the context of C2005 there are three distinct but overlapping elements that form a coherent system of holistic assessment of learners. These are briefly outlined below:

- *Formal summative assessment* which makes sure that a learner is competent to attain a level or qualification. This type of assessment includes the award of qualifications and/or year marks, and the recording and reporting of these. This assessment is done through written, and or practical examinations and can be internal or external.
- *Continuous (on-going) formal assessment* creates opportunities for a learner to be assessed in a variety of ways and contexts over a period of time. The results of this assessment should be included with the summative results. It provides a variety of ways of demonstrating competence over a range of contexts. The assessment tasks should be so structured so that they can lead to the award of marks or grades which can be recorded and included in the summative assessment. The tasks should ideally, in the true OBE context be authentic, that is to say, based on the observation of learners working in real-life situations. This assessment should be internally assessed and may be externally moderated.
- *Continuous (on-going) informal formative assessment*. This type of assessment is used in a developmental rather than a judgmental sense. Informal, formative assessment through the use of self-assessment, peer-assessment, portfolios and so on. (see 3.7.4; 3.7.6.7; 3.7.6.8) can be extremely useful to both the learner and the educator. It provides feedback to the learner on areas of weakness and

provides insight to the educators on how the learner most needs to be helped to attain a particular outcome. This diagnostic type of assessment guides the educator's planning and encourages the setting of appropriately differentiated tasks. This element implies internal moderation but need not be externally moderated (Clark 1997: 16; 2000: 4; Vermeulen 2000: 83).

An important characteristic of outcomes-based assessment, as required by the NQF, is that learners' achievements can be credited at various levels and sub-levels, whatever learning pathway they may have followed and at whatever rate they may have acquired the necessary competence. In principle, learners should have access to assessment at a given level in a given area of learning, when they feel competent in that area and wish to confirm that they are ready to move on to the next. This learner-centred ethos also has implications for organisation within schools in which classes are taught as a single unit. Learners' needs will be best addressed if classes are seen as a heterogeneous group of learners moving at different speeds through a series of progressively demanding activities, to develop theoretical and practical competence in relation to progressively sophisticated learning outcomes. This process should also make provision for learners with special education needs. In this context, assessment takes on a supportive, formative and diagnostic role, both guiding the learner and helping the educator to plan appropriate activities to meet the learners' needs (NDE 1996: 27).

No single assessment method could do justice to the diversity of learners who must be accommodated in the GET bands. Some learners achieve better during end of term examinations, some achieve better during practical work and yet others perform better during term tests. The use of a variety of teaching approaches will help educators to address the diverse backgrounds, learning styles and needs of their learners and will provide learners with a wide range of opportunities to demonstrate their progress. This will prepare them for the real world (NDE 1996: 28).

3.7.5 Product versus process

The research literature on assessment in OBE and C2005 distinguishes between a product and a process approach to assessment. For Malan (1997: 15-16) and Vermeulen (2000: 79), the term 'outcome' refers to the result or product of some other process. Process is not a single happening, but rather a series of happenings that take place in steps. A product is the result of a single happening and a learner is usually expected to give back that which is received. In a process approach the emphasis in the teaching-learning situation is on the process itself. Educational theorists agree that the processes and products of learning are inseparably connected and both need to form part of the total assessment of learners (Du Toit *et al.* 2000: 22).

According to Steyn and Wilkinson (1998: 206), behaviourism and constructivism are on the opposite sides of the continuum of OBE. Both behaviourism and constructivism (see section 2.3.5.3.4) supply the impetus towards learning which can be process or product driven. Elen and De Corte (in Du Toit *et al.* 2000:22) state that the new evolutions in the field of learning and instruction, and especially evolutions towards constructivism and learner-centred approaches, are more process orientated. Process assessment refers to a different set of assessment approaches: it aims at determining the quality of the process itself, either the learning process, or more often, the problem-solving process. Not only the result of a particular process is regarded to be important, but also the process that underlies that result. Process assessment becomes important when higher-order learning and divergent thinking is the aim (see 2.3.5.3.2). In such cases the product itself cannot be predicted.

3.7.6 Alternative methods of assessment

The GET band of C2005 is composed of a great diversity of learners and no single assessment method would be suitable for this phase. A wide variety of teaching styles and assessment methods would need to be employed to address the diverse backgrounds and needs of learners. In addition, certain assessment methods might not be suitable for all learning areas. Educators must thus select assessment methods that are suitable for the outcomes they are assessing. It could be argued that in this context, a final summative assessment technique could be used, but different assessment methods will also be needed to test knowledge, skills, values and attitudes (NDE 1995b: 33).

The different assessment methods will provide learners with a wide range of opportunities to demonstrate their competence (Vermeulen 2000: 78). The different types of assessment are detailed in the following paragraphs (3.7.6.1 - 3.7.6.8).

3.7.6.1 Norm-referenced assessment

A norm-referenced test indicates the learner's performance in terms of the relative position held in the specific group. Norm-referenced interpretations may relate to local, provincial or national groups. Norm-referenced grading is based on comparing learners to one another: the function of each learner's grade is to indicate how the learner performed in comparison with other learners in a specific grouping. Norm-referenced assessment is necessary in quality assurance and quality control (Du Toit *et al.* 2000: 28, Vermeulen 2000: 78).

3.7.6.2 Criterion-referenced assessment

Criterion-referenced assessment relates to the specific performance that was demonstrated. It is designed to provide a measure of performance that is

interpretable in terms of clearly-defined external criteria (Du Toit *et al.* 2000: 28). Criterion-referenced assessment determines the level of performance obtained or whether the minimum criteria have been met. Taylor (1999b: 193) maintains that criterion-referencing attempts to capture a particular competence defined in terms of a specified standard. If a learner meets the requirements, the learner attains the outcomes; if the learner does not meet the criteria, the learner does not attain the outcome.

In the context of C2005 and its outcomes-based origins, the NQF advocates a criterion-based system of assessment (NDE 1997a: 22), which means moving away from norm-referencing and normal distribution (the classic bell-shaped curve) by phasing out grade point averages and comparative grading (Vermeulen 2000: 79). The flaw in this argument is that within the context of norm-referencing competition serves as a motivator (as it does in sport) and some kind of norm-referenced testing is essential to maintain standards, especially when dealing with large numbers, as we are in South Africa today. In the Vermeulen and D'Oliviera interviews it will be noted that the recommendation that is made is that 75% of learners' assessment be made up of norm-referenced testing (Continuous Assessment or CASS) and 25% be criterion-referenced. At the time of writing, the expectation is that this formula will apply to the grade 9 exit examination that will be written for the first time at the end of 2002 (FSDE 2001a: 2; 2001b: 4; 2001c: 3).

3.7.6.3 Summative assessment

Summative assessment is used mainly for decision-making, as it is usually a final summative evaluation judgement providing information on success and failure for selection and certification purposes. Summative assessment assesses achievement at the end of instruction in order to document learner performance after instruction is completed. Examples are end-of-term examinations and research projects (Du Toit *et al.* 2000: 26-27, Vermeulen 2000: 79).

3.7.6.4 Formative assessment

Formative assessment monitors and informs the teaching and learning process. It provides continuous feedback to both learners and educators concerning success and failures. Formative assessment influences instruction to provide corrective actions as instruction occurs to enhance learning (Du Toit *et al.* 2000: 27). Formative assessment forms learners, it provides feedback to learners on their performance and serves as a feedback for improvement rather than for purposes of grading (Vermeulen 2000: 80). For Kotzé (1999: 31) formative assessment is an integral step in the shift towards OBE. The shift involves informing learners of quality and progress rather than the major emphasis on summative assessment. Examples of formative assessment tools are portfolios, peer-assessment, self-assessment and group assessment.

The analogy with Von Glasersfeld's theory of radical constructivism (see 2.3.5.3.3) can be drawn. Von Glasersfeld's fundamental principle for the practice of assessment is based on the ideal that concepts and conceptual relations are mental structures which are unique and cannot be carried over from one mind to another. Concepts have to be built individually by each learner, yet educators have the responsibility of orientating the learner's constructive process during formative assessment (Du Toit *et al.* 2000: 27).

3.7.6.5 Continuous assessment

Continuous assessment is used as a tool to support a learner's development and to provide feedback for teaching and learning. Continuous assessment requires a paradigm shift on the part of the educators from final, summative examinations to ongoing, continuous formative assessment of learners. This is used to identify the strong and weak points of learner performance, to track learner development and to inform the teaching and learning process. The aim of continuous assessment is to

shift the focus of assessment away from the memorisation of reams of facts, to understanding. This, in effect, would serve the purpose of placing facts in context and thus make them more meaningful in real-life situations (NDE 1995b: 33; NDE 1997a: 21; NDE 1997d: 13).

For the NDE (1997a: 22; 1998a: 14), continuous assessment will underpin assessment across all levels and will be used to support the learner developmentally. It is a feedback to learning and it places emphasis on formative assessment. Recorded evidence on the learner's progressive achievement will include: diagnostic assessment, self-assessment, peer assessment, observation sheets, journals, educator produced tests.

Continuous assessment should not be regarded as an accumulation of test results, but should rather be viewed as formative in nature and as such "... must include suggestions on what learners should do to improve their performance ..." (NDE 1998c: 10). Educators should keep in mind that continuous assessment is not continuous testing. Authentic (real-life) assessment should form a large part of continuous assessment and should be designed in such a way that skills, knowledge, values, attitudes, as well as personal development and growth are assessed, as far as possible in real-life situations. Using this assessment approach as an evaluation practice with its cumulative character, allows a educator to build up a profile of a learner's performance, skills and attitude (Vermeulen 2000: 80). Continuous assessment can include individual and group assessment in a variety of tasks. Continuous assessment can include summative assessment, which, if applied at the end of a learning programme, should include information about a learner's development, gathered during formative assessment (Marneweck and Rouhani 1996: 282; NDE 1998a: iv, 15; Vermeulen 2000: 83).

According to the policy document assessment from the NDE continuous assessment must form an integral part of teaching and learning in schools and must be

administered according to the guidelines laid down by the respective Provincial Departments of Education. In continuous assessment models, criterion-referencing is adopted, which means that individual performances are measured against a set of pre-determined standards. In South Africa, these standards are set by the NQF and form the basis of unit standards.

The policy document on assessment stresses that continuous assessment is distinguished by the following characteristics:

- It makes it possible for educators to use learning experiences to determine learners' performance.
- It is an essential aspect of the total assessment of the learner.
- It takes place over a long time-span, virtually all the time.
- It is diagnostic in nature and allows the educator to monitor the learner's strong and weak points.
- It makes it possible for a educator to monitor the pace of teaching and learning and to prescribe remediation or enrichment.
- It sets clear outcomes for learners.
- It makes learning tasks more meaningful for learners and thus makes it possible for learners to achieve outcomes without the pressure of tests alone. It avoids *teaching to the test*.
- It usually takes place in a more informal context.
- It is open and transparent; learners know up-front what is expected of them and at what level; there are no surprises in OBE assessment.
- It demands that the educator keeps careful records of the learning process. This record will form the basis of progression decisions.
- It requires daily observations by the educator of many and varied aspects of the curriculum and ensures that content is not the only focus.
- It encourages learners to take responsibility for their learning.
- It ensures that educators use a variety of assessment techniques.

- It exposes learners to a variety of assessment techniques and focuses their attention on what is important to achieve the learning outcome.
- It ensures that summative assessment forms only a part of the total assessment.

(NDE 1998a: 15-16)

3.7.6.6 Performance assessment

The main issue regarding outcomes-based assessment is that a demonstration of competence is required. Learners are expected to demonstrate their knowledge, skills, values and attitudes in some tangible way, usually in real-life (authentic) context. The performance is measured according to performance standards that indicate a specific level of competence (Du Toit *et al.* 2000: 31). For Spady and Marshall (1991: 67), the culminating demonstration is of paramount importance. This involves two aspects. Firstly, the nature of the demonstration (the substance, processes and settings that are brought into play) and, secondly, the scope of the learning to which it applies. The scope of these outcomes can range from relatively small segments of learning, such as lessons and units, to large areas such as entire subject areas (Spady and Marshall 1991: 67; NDE 1998c: 36; Vermeulen 2000: 76).

The role of the educator is to assess this performance so that the necessary credit may be given, and in order to do this, direct and systematic observation of learner performance is required. This can be done by observation of, amongst other things, orals, written reports, creative writing, graphic communication, extended projects, models, essays and so on (Vermeulen 2000: 84; NDE 1998c: 38). Learners are, during performance assessment, required to demonstrate that they have achieved the outcome by carrying out a task or producing a product. These demonstrations can be carried out in a controlled classroom environment or in a real-life situation where greater demands are made on the learner. In either case, the demonstration should mirror a real-life situation where knowledge, skills, values and attitudes all come together within the demonstration (see 2.3.3.6.9). This type of demonstration is often referred to as an authentic assessment, because they are meaningful to the

learner and represent applications to everyday life. (Malan 1997: 30; Killen 1997: 23; Du Toit *et al.* 2000: 46).

3.7.6.7 Self-assessment, peer assessment, parent assessment

The policy document on assessment for the GET phase states that the educator has the overall responsibility for assessment. The decision, however, of who should be involved will be determined by the actual form of the assessment undertaken. It can involve a partnership between educator, learner and parents and other school support services such as occupational therapists, councillors, psychologists and so on. The main beneficiary of assessment must be the individual learner, and therefore the main purpose must be for growth and development. It is necessary therefore that the educator makes provision for assessment to take place by the learner himself, by peers or by the parents (NDE 1998a: iv, 14).

During *self-assessment* learners assess their own work. Educators can show learners how to do this and it encourages learners to work for themselves. *Peer assessment* occurs when learners assess each other's work: this can be done as either an individual or group activity. Parents need to be involved in their children's schooling and *parent assessment* is one way of achieving this. Parents can be asked to assess and comment on their children's progress. In each of these types of assessment a control list of specified criteria are referred to where certain aspects are marked off (Marneweck and Rouhani 1996: 284-285; Free State Department of Education (FSDE) and Mathematics Materials Development Project (MMDP) 1998: 3,4,6,10).

3.7.6.8 Portfolios, journals, observation sheets

The Free State Department of Education sees a portfolio as a collection of a learners' work '... between two covers ...'. It shows evidence of the learners

knowledge, abilities and growth; and represents sustained effort over time. The educator and the learner negotiate on how the pieces of work making up the portfolio should be selected. It can be a deliberate, strategic and specific collection of learner work that demonstrates that learning has occurred. A portfolio must have clear intent and purpose that is linked to the learning programme outcomes. The portfolio should also include written observations by the educator as well as self and peer assessment (Vermeulen 2000: 84; FSDE 2000a: 5). For the NDE, a learner's portfolio is not a haphazard collection of examples of work; it is a specific collection of evidence that learning has taken place (NDE 1997f: 33).

In *journals* learners could be asked to reflect on their learning and clarify meaning after a learning experience. Journals are most effective when learners are engaged in the learning experience and have a clear understanding of the intended learning outcomes and how they will be assessed (NDE 1997f: 35). Du Toit *et al.* (2000: 46) identify the educator's knowledge about learners' perceptions of their own learning as *reflective assessment*.

Observation sheets can be used by educators and learners to record the achievement of specific skills, behaviours and evidence of achievement and progress over a learning period. The specific skills, behaviours and achievements being monitored must be linked to the learning programme outcomes and must be readily observable. The most common observation sheets are individual learner checklists and whole class grids. These checklists can form part of the portfolio and facilitate self and peer assessment (NDE 1997f: 35).

3.7.6.9 Recording and reporting

Although most of the assessment techniques used in an outcomes-based system such as C2005 are formative by nature, there is a need for summative assessment. This aims at giving a picture of the level of development of learners at a given

moment in time; it sums up their learning. There is therefore a need to record the results of such assessment in such a way that they are open and transparent to learners and show evidence of continuous testing by educators (NDE 1998c: 30).

Reporting to parents must be meaningful and understandable and should take the form of a written report once a term. Regulations on presentation to parents varies from province to province. The following is but one of many methods of reporting:

- The first and third term may contain fairly brief comments and a grading/symbol for each phase organiser/learning programme based on continuous assessment (which includes tests and examinations for the Senior Phase).
- The June (half-yearly) report may focus on selected specific outcomes and provide level descriptions (which summarise key performance indicators): educators will indicate which level has been achieved.
- The December (end-of-year) report may focus on the critical outcomes, giving comments showing the developments that have taken place during the year.

(NDE 1998c: 30-31).

The Free State Department of Education advocates the following procedure:

- Reporting will take place at least once a term as regular reporting is essential for the development of quality teaching and learning.
- Reporting is an integral part of learning, teaching and assessment and as such should include formal meetings, written reports and less formal opportunities for dialogue, either individually or in groups. These meetings should involve educators, parents and learners. At these meetings parents should be assisted to understand the changed role of marks and percentages and the overall shift to a more criterion-referenced approach.
- Reporting should included information on the holistic development of the learner, including the development of values, attitudes and social development. Thus reporting does not concern itself with academic factors alone, but considers the learner as a whole.

- The report should convey through the educator's comments, a clear impression of personal knowledge of the learner, summarise achievement and progress, and provide useful feedback to evaluate and improve learning and teaching. Comments from parents and learners should be encouraged and thus reporting can serve as a focal point for dialogue between home and the learning site.

Schools are encouraged to produce their own reporting formats, bearing in mind the basic principles of OBE assessment mentioned earlier (FSDE 2000a: 3).

The way in which information on the report is presented can take many forms. The 'old' traditional report form used only to have a list of subjects taken, the marks or percentages obtained by a learner for each of these subjects and a (usually brief) comment by the learner's class educator. C2005 demands more than this. Skills, values and attitudes need to be reported on and this cannot be done in the traditional way using the familiar percentage mark allocation. It is usual to use a rating scale (NDE 1998a: 31-34) with an attached explanatory key which gives an indication of the level that learners have achieved. Since there is not a set policy for reporting, the role of the instructional leader is to be proactive in developing a reporting policy that fits the requirements of the school and the community. Section 6.6.2.2.7 contains an example of a reporting form from the researcher's school. It will be seen that the report contains elements of both the traditional reporting style and the newer demands of an outcomes-based approach. The community in which the researcher's school is situated requested that the knowledge component (expressed as a percentage) be retained on the report. The skills, values and attitudes are reported by means of a five-point rating scale.

These newer forms of assessment differ radically from the norm-referenced type of assessment which teachers are familiar with. It is thus essential that the instructional leader be aware of the implications of these innovative forms of assessment and that the new policies are comprehensible to staff. The instructional leader also needs to

ensure that the learners understand the implications of the assessment. The researcher's experience has shown that generally, learners respond to these newer forms of assessment because they are open and transparent and that they tend to take responsibility for assessment procedures. Learners are aware of the assessment criteria before a task is started and thus have a more focused approach to fulfilling the outcome.

3.7.7 Assessment of cognitive, affective and psychomotor outcomes

The policy document on assessment states that "... assessment should be redefined to reflect innovations in assessment which do not refer to assessment techniques, but to *new connections* that have been made between these assessments and the cognitive skills and processes that have been identified by cognitive theorists over the past ten years ..." (NDE 1998a: 15). An OBE approach to education is a further development of Bloom's Mastery Learning (see section 2.3.4.2) based on his taxonomy of educational aims. The assessment criteria and performance indicators that a educator wishes to use can be representative of Bloom's categories of cognitive (intellectual), affective (emotional) and psychomotor (physical) objectives on different levels (range statements). In planning assessment techniques, methods and instruments (examination papers, observation sheets, practical and so on), the educator should include all three categories from Bloom's taxonomy (Vermeulen 2000: 82).

Cognitive outcomes (knowledge and understanding) describe the knowledge that learners are to acquire and the processing of information by the learner. *Affective outcomes (norms and values,)* describe the attitudes and feelings that learners are expected to develop. These outcomes are usually difficult to measure and educators frequently omit them. Much teaching is directed towards the development of beliefs, attitudes and values and it is important to describe and assess these outcomes. If aspects of a learning area are worth learning then they should have some impact on

the life of the learner. *Psychomotor outcomes (skills)*, relate to physical, manipulative and motor skills that learners need to master. Learning to play a piano, use a microscope or a sewing machine, depends at least in part on manipulative and motor skills (Bloom, Krathwohl and Masia 1964: 7; Vermeulen 2000: 83). Educators should keep in mind the theory of constructivism and Piaget's theory of assimilation in the context of cognitive outcomes (see section 2.3.5, 2.3.5.1). Learners need to be stretched or extended during learning programmes and this must be evident in the assessment of higher cognitive skills such as analysis, synthesis and evaluation and will require the process-oriented approach as outlined earlier.

3.7.8 Summary

OBE has changed many aspects of curriculum practice, including assessment. A whole new approach to assessment is being implemented with OBE, namely continuous assessment. OBE provides the framework for educators to implement continuous assessment in their classrooms, and given this new curriculum framework, assessment should also be outcomes-based, that is to say, learners must be given many opportunities to show educators what they know and what they can do (Marneweck and Rouhani 1996: 279). An outcomes-based approach to learning and teaching requires that the focus of assessment must be on assessing learning outcomes and learning inputs. A core function of assessment in an outcomes-based approach to teaching and learning is to determine whether or not learning outcomes have been attained. Assessment in this sense has a two-way function, namely to develop learning and to monitor teaching and learning. It is through assessment that the efficacy of the teaching/learning process can be evaluated. The transformational model of OBE is the one implemented in South Africa (see 2.3.11) and this model leans towards constructivism and a process-oriented approach to assessment (Du Toit *et al.* 2000: 23).

The most common points of departure for educational assessment are norm-referencing and criterion-referencing. Two more terms are added to describe assessment in outcomes-based and C2005 education systems, namely formative and summative.

It will be seen from the above description that assessment in an OBE/C2005 context is a new way of assessing which contrasts with the more traditional systems.

The old system:

- Relied overwhelmingly on norm-referencing with selection as the main purpose.
- Was in essence competitive, selecting a minority for success and consigning the majority to mediocrity or failure.
- In the old norm-referenced system learners are measured against each other with certain, more-or-less, fixed percentages of learners failing, passing or gaining distinctions.
- A learner may make significant progress without receiving recognition.

The new system:

- The NQF, which is outcomes-based, will ensure that assessment in South Africa is firmly based on criterion-referencing or self referencing, where a learner's progress is measured against his/her own previous achievement, and not against that of other learners.

The department is, however, of the opinion that norm-referencing will continue to play a limited role in moderation procedures. (Vermeulen 2000: 76)

It is the role of the instructional leader to monitor and control the various assessment strategies used by the educators in order to maintain standards that will ensure quality teaching and learning and meet the complex assessment requirements of C2005.

3.8 Progression in the GET phase

In OBE, progression is defined in terms of the accomplishments/achievements of nationally agreed specific outcomes. The pace at which these stated outcomes can be achieved is not time bound. The evidence of learner performance or progression in achieving outcomes will be used to identify areas where the learner needs support, to assist with the planning of the teaching and learning process, which responds to the learners needs and areas of development. Therefore, the evidence derived from the performance of learners in progressing to achieve these outcomes, are for developmental and not gate-keeping purposes (NDE 1998a: 18).

According to the National Department's policy document, it is expected that learners will progress with their age cohort. Where it is felt that a learner needs more time to achieve the outcomes, the policy document advocates discussions between support services (educators, psychologists, councillors) and the parents, who ultimately, after consultation with the Provincial Education Department, have the final say. The extra time required to meet the outcomes might not take a full year (as is the present case with repeating a year) and can range from between three to six months. The practical implications of this are obvious and are too complex to make real meaning of at this early stage of C2005 implementation (NDE 1998a: iv, 18-19). Continuous, formative assessment as discussed in section 3.7.6.4, will form the major part of assessment in grades 7, 8 and 9 and will be administered internally, and public accountability demands that it be moderated externally (NDE 1998a: iv). The end of grade 9 represents the final year of compulsory schooling and is marked by a nationally designed and moderated assessment for all learners in schools. This assessment will consist of sets of integrated assessment tasks focusing on the critical outcomes and will:

- Ensure that the critical outcomes that reflect the particular needs of our society, and the principles behind our unique and transformative OBE system, are addressed directly in every school, and given value.

- o Ensure that educators and learners are encouraged to integrate knowledge, skills and values from all learning areas and transfer this learning to new contexts.
- o Ensure national comparability of standards.
- o Serve as a moderating instrument to confirm or call into question assessments made internally.
- o Help to identify schools or districts where additional support and training are required.

Provide data that will help to pinpoint curriculum and methodology areas in need of policy intervention (NDE 1998c: 35).

The GET certificate that will be issued at the end of Grade 9 represents the first exit point for learners in the compulsory school phase. There will be external assessment, which together with the credits from Grade 7, will contribute to the attainment of a qualification. The assessment will be of an integrative nature, that is to say, continuous/formative and summative. Accountability to the public and transparency to all stakeholders, will require that the NDE introduce external moderation for the validation of the assessment that leads to the qualification at Grade 9 level (NDE 1998a: vii).

3.9 Learner achievement records

The format of learning records, like that of reporting, will vary between the provinces, but there must be sufficient similarity to facilitate the movement of learners from one part of South Africa to another. The learner achievement record (or record of learning) should record fairly and accurately the outcomes achieved by learners including all unit standards and qualifications awarded by the NQF (Olivier 1998: 18). The record of learning is updated as a learner earns more credits.

3.10 Language-in-education policy

The NDE (1996: 31) acknowledges that language is central to learning and that it is through language that ideas are clarified and communicated. It further acknowledges that policies for language in education could affect learners' opportunities for cognitive development, as well as their sense of identity and relative worth. The aims of the national language-in-education policy are set out below.

In accordance with interim constitutional principles relating to languages, the national language-in-education policy has, as its aim, the:

- promotion of equitable and meaningful access to education and thus to society and the economy;
- establishment of additive multi-lingualism as an approach to language in education;
- promotion and development of all the official languages;
- support of the teaching and learning of all other languages required by learners or used by communities in South Africa, including languages used for religious purposes, languages which are important for international trade and communication, and Sign Language; and
- countering of disadvantages resulting from different kinds of mismatches between home languages and languages of learning and teaching (NDE 1996: 31-32).

Language policy in general, and language-in-education policies in particular, need to be as flexible as possible. This is essential since the immediate context of an institution of teaching and learning is of enormous importance in affecting the success of language learning and language use, and since the contexts vary widely in South Africa, across regions and in rural areas.

Successful learning of a language in the school situation depends on both motivation (which is influenced by attitudes) and on the range of opportunities for its use outside

the classroom. It goes without saying that the instructional leader of a school needs to address these issues. How this is done will be discussed in section 6.6.1 of this study (NDE 1996: 34).

3.11 The implementation plan

The implementation of C2005 was faced with grave difficulties. Despite enormous political will and effort, social demands were seemingly not matched by financial, physical and human capacity within the system, to implement it according to schedule (Chisholm 2000: 3).

The NDE proposed the following dates for the implementation of the new curriculum (NDE 1997b: 18):

Table 3.3 The planned phasing in of OBE/C2005 in South Africa

Grade	Year of implementation
1 and 7	1998
2 and 8	1999
3 and 9	2000
4 and 10	2001
5 and 11	2002
6 and 12	2003

In reality this time-frame was not adhered to and C2005 was eventually introduced into the GET phase of South African schools in 2000. Initially, national pilots were to run from grades 1 to 3 and 7 to 9 in the second half of 1997, as preparation for full-scale implementation starting in 1998 and going to 2001. The national pilot was aimed at reaching 300,000 educators in the system. As implementation began in 1997, provincial protests led to a scaling down of the scope of the implementation to grade 1. In August 1998, the implementation of C2005 in the senior phase was

postponed from 1999 to 2000. Pilots in grade 3 and 7 were begun in 1999 as these were due for implementation in 2000. In 2000 grades 3 and 7 were implemented and the Minister requested advice on the implementation of grades 4 and 8 in 2001 (Chisholm 2000: 3).

Many of the difficulties of implementation were linked to the post-election social change and the policy formation in which C2005 emerged. Heightened social pressures and budgetary constraints influenced C2005 in various ways; it was but one of many areas vying for attention at this time.

The combination of changes occurring meant that implementation was not always carefully thought through and enormous stresses and strains were placed on already overburdened educators and schools. The new curriculum policy, OBE, also came under attack from academics such as Jansen and Christie (Chisholm 2000: 3). Tirisano, the National Departments mobilisation plan for education and training (see 2.1; 2.4) acknowledged these stresses and eventually C2005 itself came under review.

Chisholm (2000: iii) shows that the delay in implementation was due to:

- A skewed curriculum structure and design.
- Inadequate orientation, training and development of educators.
- Lack of alignment between curriculum and assessment policy.
- Learning support materials that are variable in quality, often unavailable and not sufficiently used in classrooms.
- Policy overload and limited transfer of learning into classrooms.
- Shortages of personnel and resources to implement and support C2005.
- Inadequate recognition of the curriculum as the core business of education departments.

Jansen (1999b: 88-93) offers the following as contributing factors to the delay in implementing C2005:

- Declaring policy is not the same as achieving it; the problem is a set of obstinate educators, conservative schools or incapable provinces who do not implement policy.
- The reasons for making policy are often only vaguely related to intentions of changing curriculum practice at classroom level; little consideration was given to the complexity of resources and support systems needed to move from one policy enunciation to policy enactment within schools and classrooms.
- Declared policy, implemented without the fundamentals of curriculum support, often creates policy cynicism among practitioners given any lack of evidence to signal improvement in teaching and learning at the classroom interface; C2005 was introduced with very little educator support and supervision.
- Changes expected from policy routinely underestimate the complexity of the system into which such change is introduced; capacity, experience and expertise at the provincial level was a serious weakness in the chain.
- Policy intended to simply change educator behaviour is very likely to be short-lived and inconsequential unless the focus shifts to changing educator understanding; authentic curriculum change seeks change at a deeper level, that is to say, the level of the practitioner's understanding of how to change, why the change is necessary and ways in which changing improves learning.

3.12 Summary

The events leading up to the introduction of a new curriculum for South African schools was discussed in this chapter. A brief introduction to curriculum theory set the stage for an outline of the origins of C2005, the influences of global trends on its design and the need for school reform as explained by the progressive consensus school reform movement. The principles relating to curriculum development were discussed as a background to the formation of SAQA and the NQF.

The structure of the NQF demands a paradigm shift in the way the curriculum for the GET band is structured and implemented and the design features of the outcomes-based curriculum, C2005, that arose from this was discussed in detail. The role of critical and specific outcomes, learning areas, range statements, assessment criteria, phase organisers, programme organisers, unit standards and the awarding of credits and qualifications were outlined.

The role of assessment as a continuous, formative and integrative component of an OBE system were discussed and a comparison of traditional assessment was made in contrast to that of C2005. The newer assessment techniques include continuous assessment, performance assessment, self and peer assessment and parent assessment as well as assessment using portfolios, journals and observation sheets. An indication was given of the needs of learners with special educational needs. Recording and reporting was discussed in the context of C2005 and the importance of records of learning explained. A further aspect of C2005 that was investigated was the language-in-education policy. In conclusion, the problems and criticisms surrounding the implementation of C2005 were highlighted and the reasons for a review of C2005 given.

The introduction of OBE as an approach to deliver C2005 has meant changes to the curriculum and how it is delivered in the classroom. The change will impact on teaching and learning practices and on how schools are managed. These issues need to be addressed by the instructional leader and it is thus necessary that this person be aware of what global and local changes are acting on the current South African educational environment (see 4.7.1), how to implement staff development programmes to deal with them, and what teaching strategies to adopt to meet these demands.

These global and local changes demand that schools produce learners who are able to fit into a democratic society. Learners need to be skilled in fundamental life

performance roles which will allow them to acquire the social, interpersonal, technical and strategic skills necessary to fit into a such a society. The most significant changes in educational practices that will result from implementing C2005 will emanate directly from the critical outcomes as stipulated by C2005 policy documents. Educators need to continually engage learners in experiences enabling them to develop the knowledge and apply the skills that translate directly into the things they will have to be able to do as responsible and productive young adults in a world of consistent challenge and change. These are unfamiliar waters for educators and aggressive instructional leadership is necessary to guide education in developing teaching strategies and classroom practices that will address this.

C2005 requires new ways of looking at the assessment of pupil performance and staff development programmes need to be designed by the instructional leader to help staff move from norm-referenced, summative assessment to that which is criterion referenced, formative and continuous.

From a policy perspective OBE and C2005 are innovations adopted by the post-apartheid government to restructure and transform the legacy of apartheid education and training. Change of this nature is difficult to achieve and win support for, and working in this environment of designing learning programmes and dealing with the complexities of continuous assessment requires well-prepared teachers. Poorly planned and over-hasty introduction of the new curriculum into schools causes immediate negativity from teachers and learners towards the new curriculum. Achieving the the required knowledge, skills and habits of mind to promote the new curriculum will take hard work from a number of role players. The learners will have to take greater responsibility for actively participating in the learning process and working hard. The teachers will have to take full responsibility for careful planning and management of their learners learning environment.

Only informed teachers will be able to overcome the possible detrimental effects and dangers of OBE and C2005. The instructional leader can make a valuable

contribution to the successful implementation of C2005 by interpreting policy documents, by motivating and developing staff and by providing the necessary managerial infrastructure that supports an OBE approach to education. Chapter 4 specifically deals with issues that relate to instructional leadership.

C2005 with its OBE origins requires hands-on, knowledgeable and consistent leadership if it to be successfully implemented in schools. The instructional leader needs to be aware of the many and complex issues surrounding the management of change from one curriculum type to another.

The next chapter of this study will investigate and detail the complex nature of instructional leadership in the context of C2005.

Chapter 4

Instructional leadership

4.1 Introduction

The running of a modern secondary school today is a complicated task and the school principal faces a myriad of external pressures and demanding expectations, has to deal with conflict and stress, and needs to keep up with increasing technological, social and educational changes. The technological and sociological revolutions that have overtaken our community have affected curriculum, school organisation, discipline, learner behaviour and the nature of the teaching-learning process itself (Drake and Roe 1986: 433; Van der Horst and MacDonald 1997: 5; Grösser 2001: 32-33). The administrative and managerial duties required to run a school efficiently and effectively are enormous and the principal has to work in an environment characterised by limited resources, staffing problems and financial constraints. In addition to these routine tasks, the principal is expected to take responsibility for and lead the school's instructional programme. This task is further complicated by the implementation of C2005 and the requirements needed to operationalise OBE in secondary schools that are already trying to adapt to the continuous assessment policy implemented in 2001 (FSDE 2000a: 2). In addition, at the time of writing this study, no official information or instruction regarding the implementation of the FET phase has yet been received at school level. As mentioned in section 3.13 the introduction of C2005 was disorganised and disjointed and received a very negative reaction from many different quarters.

The instructional role of the principal is therefore further aggravated and in addition to the managerial and administrative requirements of his position, this aspect of his leadership becomes very difficult. It will be seen later in this chapter that the instructional leadership cannot always be carried out by the principal and needs to be assigned to a responsible, knowledgeable and

capable member of staff or member of the senior management team (SMT). In this study, therefore, the term 'instructional leader' does not necessarily always refer to the principal. It is understood, however, that the principal does take ultimate responsibility and accountability for the implementation of C2005.

The modern-day principal holds a position of leadership and is subject to a large number of forces that have great influence on the way he goes about his task. The principal has to be not only a leader, but an orator, manager, educationalist, social worker, figurehead, and an example to his staff. At the same time he must strive to maintain a professional status, and at all times act for the good of the school, staff and learners. It is obvious that the principal performs the task of educational leader of the school. It then becomes apparent that there is a need to discuss the principal as an educational leader. However to see a holistic picture of school and educational management, it is necessary to do two things. Firstly, the characteristics of effective schools must be examined and secondly, the role of the principal as an educational leader.

This chapter will outline the concept of leadership and educational leadership, (which includes the role of the principal) with emphasis on the instructional leadership necessary for the implementation of C2005. The role of the instructional leader will be discussed, and the tasks that he undertakes within a C2005 environment, will be elaborated upon.

4.2 The concept of leadership

4.2.1 Introduction

The Collins English Dictionary (1979: 835) defines a leader as a "... person who rules, guides or inspires others ...". Implicit in the word leadership is the concept of change, or forward movement. The word lead also implies an interpersonal relationship between the leader and those whom he is leading. This is a vital aspect of leadership that has been the focus of recent research

and is perhaps best described in these words "... a person who is a genuine leader wins the confidence and the co-operation of those he leads ... he is at one with them and they with him ... the influence on his followers can be described as power with people ..." (Cawood and Gibbon 1985: 3).

In early years the man who knew the answers in a particular situation was usually looked upon as the leader, but in more recent times the emphasis has shifted from "... directing and controlling to involving and motivating ... " (Giammatteo and Giammatteo 1981: 2). This emphasis on personal relations is expressed by many definitions, all making the point that people are influenced in some way to get the job done. The most succinct of these is: "... Leadership is best defined as getting the job done through people" (Scott-Thompson 1985: 5). Furthermore, leadership can be defined as "... the interpersonal process by which the goals of a group or organisation are defined and pursued ... " (Erlandson 1976: 22). Drake and Roe (1986: 115) see leadership as a planned process that results in:

- Challenging people to work toward an ever-expanding vision of excellence in the achievement of organisational goals and objectives.
- The creation of a threat-free environment for growth, so that the creative talents and skills of each person are used to best advantage.
- The encouragement and building of working relationships that are individually and organisationally satisfying, unifying and strengthening in the realisation of mutually-determined goals and objectives.
- The optimisation of available material and human resources.

Schools, like all other organisations, have a structural hierarchy. Some people are more important than others and, due to their experience and positions, are able to make more appropriate decisions about policy than others. This hierarchy conforms to the behavioural science view of management and will never change. However, the researcher argues that this situation is geared towards a better control of administrative issues and efficiency, but that it ignores the concept that the people closest to the work have a very important

role to play in shaping decisions about teaching and learning. The instructional leader would have the opportunity, and the obligation, to assure educators that their opinions and ideas deserve consideration. Glatthorn and Newbury (1992: 65) are also of the opinion that "... instructional leadership can emanate from the leadership of people other than the principal ...".

Leadership also implies having authority (Webster 1994: 37; Grace 1995: 54; Davis and Ellison 1997: 119). Any organised (managerial) action is impossible without authority. The attainment of authority brings with it power and "... power is present when an individual or group is able to affect the activity of another individual or group ..." (Albers 1974: 165). Goldhammer, Suttle, Aldridge and Becker (1970: 130) are of the opinion that "... educational organisations are based on a hierarchical model in which authority flows from a central position " ... the occupant of one position has authority over others subordinate to him ...". This authority is granted to a person by virtue of his position and with it comes power. Someone with power and authority can alter the behaviour of people and change their actions. Authority therefore means to control people. To be a true leader, however, knowledge, experience and personal qualities must be added to the mix of power and authority and one needs to be skilled in as many of the leadership dimensions as possible. Telling staff and learners what to do because one is in authority is one way of getting things done, but a better way is to get them to do something because they want to. Although this study is not directly concerned with sociological issues, the researcher would like to make the point that the nature of education in South Africa at the time of writing is changing. Authority is now being questioned both by educators and, more recently, by learners and parents. This places additional strain on a system already challenged by the need to redress the inequalities of the past and to set in place outcomes-based education and Curriculum 2005. Sunter (1997: 7; 1998b: 143-145), emphasises that there must be an awareness of the importance of education and that greater attention must be paid to producing effective schools (see 4.4).

To be a true leader he must possess certain qualities (of which integrity is probably the most important) and be skilled in as many of the leadership dimensions as possible. Armed with these (see 4.3), an instructional leader will adopt one or more of the traditional leadership styles and use them in varying degrees as befits each particular situation. The art of good leadership is knowing what style to use in a certain situation.

The underlying aim of the study is to discuss the role of the instructional leader in C2005. However, it is also necessary to clarify between the two concepts of management and leadership, since the management of the school is usually the domain of the principal and instructional leadership is a facet of educational leadership.

4.2.2 The difference between management and leadership

Any leader is both an administrator and a manager and for the purpose of clarity it is necessary to distinguish between management and leadership. In general terms it would appear that the two concepts of management and leadership can be used interchangeably, but this is not so - there is in fact a clear distinction between the two. (Hersey and Blanchard 1982: 3,83,84; Davis and Ellison 1997: 127)

4.2.2.1 Management

Management is a special kind of leadership in which the goals of the organisation are the most important. The leadership is task-orientated and the leader provides direction by setting goals and telling people what to do and when to do it (Davis and Ellison 1997: 127). People tend not to be important, they are treated as a means to an end - the goals. A school principal, for example, is responsible for managing the many activities that make up the direction the school is taking (his vision). The decisions he makes are influenced by this vision. Management refers to maintaining the routine

behaviours associated with the job, and leadership is defined as getting the job done through people, or the interpersonal process by which the goals of a group or organisation are defined and pursued (Erlandson 1976: 22; Scott-Thompson 1985: 5). One component of management is administration, and the administrative role of educational leadership, involves working with and through others to accomplish school goals efficiently. When principals are successful in matching their actions to goals they are considered to be effective. Principals typically work in an environment characterised by limited resources. Time, money and space are usually limited and principals have to decide how to use limited resources to best benefit the school. Effectiveness and efficiency are two universal concerns of administration. However, neither effectiveness nor efficiency makes a good school if the goals are defined too narrowly, or if they compromise democratic values or raise moral questions. A teaching strategy may be effective and efficient in getting learners to achieve an outcome but it is of little value if they come to dislike learning as a result (Sergiovanni 1991: 14-16).

4.2.2.2 Leadership

Leadership is a type of behaviour which influences the behaviour of an individual or group in efforts towards achieving a goal in a specific situation. It is a function of the leader, the follower and the situation in which the leadership is occurring. Empirical studies suggest that leadership is dynamic and will vary from situation to situation with changes in leaders, followers and situations. Leadership, then, is the process of influencing the activities of an individual or group in efforts towards goal achievement in a given situation. It involves accomplishing goals with and through people. This leadership is relationship-orientated and the leader thus needs to engage in two-way communication with his followers to provide support and encouragement for the goals they are trying to achieve. This leadership involves actively listening to people and supporting their efforts. A vital component of leadership in schools is that of instructional leadership. Instructional issues are those concerned with teaching and learning.

Management and leadership are both necessary aspects of a principal's style and the choice is not whether the principal is a leader or a manager, but whether these two are in balance and whether they compliment each other (Sergiovanni 1991: 16).

4.3 Leadership styles

4.3.1 Traditional styles

Leadership styles go beyond the scope of this study but it is necessary to highlight a few of the more traditional styles since they will have an impact on the way in which C2005 is implemented. Leadership behaviour can vary along an autocratic, democratic continuum and Drake and Roe (1986: 107-108) identify the traditional laissez-faire, autocratic and democratic leadership styles. These are described as follows:

4.3.1.1 Laissez-faire

The laissez-faire style is described as passive or non-directive, staff enjoy freedom and there is little direction of the teaching-learning process. The theoretical underpinning of this style is humanistic and it correlates with child-centred teaching. This style can hamper effective staff development and would have little value in a C2005 environment.

4.3.1.2 Autocratic style

In the autocratic style the focus is on task management where getting the job done is most important. Staff participation is limited to listening, working and doing and there is little interaction or opportunity for creativity. The theoretical underpinning of this particular style is behaviouristic. This style also has no

place in a C2005 environment because the new curriculum needs interaction and collaboration between the leader and his staff.

4.3.1.3 Democratic style

The democratic style correlates with interactive leadership. The principal and educators need a sound knowledge of their subject material and the principal encourages the educators to actively participate in staff development programmes. As a leadership style there is a need to maintain a balance between the task and the human aspects of leading, and co-operation and co-responsibility are the hallmarks of this leadership style.

From the democratic style of leadership a new way of thinking about leadership and leadership styles has evolved and led to the use of a participatory approach and the whole school process. The democratic style could prove to be effective in a C2005 environment using participatory and whole school process (NDE 1998d: 10-13).

4.3.2 Participatory and whole school process

If a school is to change and successfully implement C2005, OBE has to be applied in the classroom and in the school as a whole. Classroom practices and school management need to be changed. The traditional leadership styles require modification to work in an OBE environment. Modern thinking involves participatory leadership, which is leadership involving the managing and leading of the professional activities of the school, not through a hierarchical structure, but through a flat structure with flexible roles of members sharing responsibilities, empowering stake-holders, developing expertise and ensuring effectiveness through the creation of a culture of learning (Gorton 1972: 106; Drake and Roe 1986: 118; NDE 1998d: 10-13; Grösser 2001: 8). At school level such a team is called an SMT and involves a group of educators such as

the principal, the deputy principal, heads of department, subject heads and experienced staff.

If schools are to change OBE has to be applied in the classroom and in the school as a whole, hence the term 'whole school process'. Change is necessary in both classroom process and school management.

Implementing OBE as a whole school development process involves two things:

- Firstly, that school management and change are the responsibility of all members of the school - learners, educators, heads of department, principals and parents. Good OBE schools involve all their members in decision making because it is more democratic and also because it makes schools centres of inquiry and improvement.
- Secondly, all aspects of schools - the way learners learn, the way educators teach, and the way managers manage - impact on each other. In other words, it is no good simply implementing a grand new management plan if classroom teaching is not happening.

Schools that run efficiently (see 4.4), democratically and with good learning being central to their mission, are called learning organisations. Turning the school into a learning organisation must be the key aim of any educational leader in 'new style' management (Clemons 1989: 33-36; Grösser 2001: 27).

This new style management must involve participatory management. Just as teaching in an OBE classroom requires educators to think differently about teaching and assessment, managing an OBE school demands a paradigm shift on the part of the SMT.

Kruger (1998: 21-23) and the NDE (1998d: 10-13) are of the opinion that the participatory style would appear to be the most conducive to leading staff and learners in an outcomes-based approach to education such as C2005. Implicit in this leadership style is the following:

- The challenging of people to work toward a vision of excellence in the achievement of organisational goals and objectives.
- The optimisation of available material and human resources.
- Encouragement and building of working relationships that are individually satisfying and strengthening in the realisation of mutually-determined goals and objectives.
- The creation of an environment conducive for the growth of creative talents and the development skills for each person that can be used to best advantage. (Kruger 1998: 21-23)

Grösser (2001: 27- 28) recommends the following strategies if a school is to move towards participatory and whole school management:

- Move from the autocratic top-down to a participative and collaborative style of management.
- Move to flatter more open and more participative structures.
- OBE schools require much more flexible structures. Roles and functions need to be reassessed so that individuals have the capacity to respond.
- Develop a culture of teamwork and brainstorming at schools. This will improve creativity and the imagination of task teams.
- Create processes and structures that develop expertise rather than having a few people deliver expertise.
- Have principals and SMTs command respect through stature not status. An OBE school should move towards a system where an individual's position in the hierarchy is not the only basis for respect.
- Create and develop, among all stake-holders, a culture of learning and teaching.
- Meet pre-defined and measurable performance indicators of effectiveness, rather than place emphasis simply on efficiency.
- A school organisation should be based on the four important operational principles of OBE:
 - ⇒ clarity of focus on outcomes
 - ⇒ expanded opportunity

- ⇒ high expectations for learning success
- ⇒ design down (see 2.3.8.3)
- An assessment, data-driven management information system - a record-keeping system should be built up in schools for accurate assessment data on a daily basis (see 3.6.4.2.1; 3.7; 4.7.2; 6.6.2.2.7).
- Informed and committed communities (see 4.6.1; 4.6.2.1; 4.6.2.2).
- Communication is important (see 4.2.2.2; 4.3.2; 6.3.1).
- Capacity building through appropriate development programmes (see 6.3.2).
- A changed role for the school principal from manager to instructional leader (see 4.2.2.2; 4.3.1.2; 6.6.2.2.2).
- A new style of leadership: lead by listening (see 4.2.1; 4.8).

These strategies of Grösser are essential in a C2005 environment and the researcher has found it necessary to manage C2005 in a participative and collaborative style. Staff opinion is important (see 6.6.2.2.2) and staff development is necessary to encourage team work and develop staff expertise (see 6.6.2.2.5).

4.4 The characteristics of an effective school

Before this study focuses on the role of the instructional leader it is first necessary to take a holistic view of school organisation by looking at the characteristics of an effective school and discussing the role of the principal. The concept of whole-school development is essential for the successful implementation of the new curriculum. Learning is a life-long process which begins before school and will continue after school. In other words, the learning environment is not limited to the classroom. School leadership will be challenged to translate changes and reform in the curriculum into plans and practices which provide a supportive environment in schools and extend the support in the classroom. For this to happen schools must be effective and they need effective leadership (Clemons 1989: 33). The best practice aims to improve learner achievement by creating an environment in which both educators and learners share a clear purpose. They are able to take shared

responsibility for learning and are able to engage collaboratively in activities which promote the goals of the school. There should be a development of the school culture which invites all members of the school to foster attitudes of efficiency and effectiveness, and which supports all attempts at improving learner performance (DuFour and Eaker 1987: 80; Grösser 2001: 7). The focus is not only on aspects of curriculum development, but extends beyond school business and begins to address issues in the community surrounding the school. The effectiveness of a school is reflected through the values and beliefs of all the members, and the ethos draws on the different cultures which exist in the school community and translates them into one collective culture for all in the school. All stake-holders involved in school organisation, planning and curriculum delivery will also impact on the school culture. There is collaborative agreement by all as to what the purpose of the school is, and on what beliefs the purpose is built. This defines the mission and vision of the school, and recognises the context in which the curriculum goals for that school are formulated.

Structures, strategies and systems are put in place to ensure that the school culture is dynamic and supportive of an effective learning culture. It is the cultural change that supports the teaching/learning process, which leads to enhanced outcomes for learners.

A school with an effective learning culture:

- Maintains an image of a professional community, similar to the fields of law or medicine. Educators pursue a clear shared purpose, engage in collaborative activity and there is a collective responsibility for learning.
- Has a clear school mission. Educators value the interchange of ideas with colleagues. Strong values exist that support a safe and secure environment. There are high expectations of everyone, including educators. There is a strong but not rigid leadership.
- Promotes an environment of inquiry, encouraging educators and others to work collaboratively and collegially to seek aspects of school improvement.

- Encourages educators to work collaboratively with each other, and with the administration, to teach learners so that they can learn more.
- Has leadership that invests in people, decentralises decision making, trusts the judgement of others, facilitates participation, embraces the ethical implications in every decision, and recognises the complexity of contemporary society.
- Is a place where both educators and learners learn (Grösser 2001: 7).

Sergiovanni (1991: 88-93) offers the following synthesis of the characteristics of effective schools:

- Effective schools are learner centred. They make an effort to serve all learners (see 2.3.1; 2.3.3.6.7; 2.3.8.3.1), involve learners in school affairs, respect and celebrate the ethnic and linguistic differences among learners and have learner welfare as a priority. They use community volunteers and parents to provide close personal attention to learners. They involve learners in many of the activities of running a school. This is evident today in the government's requirements that learners play a part in the running of the school through their membership of the Representative Council of Learners (RCL) and by being members of the school's management council. An atmosphere of co-operation and trust is created through a high level of interaction between learners and educators.
- Effective schools offer academically rich programmes (see 3.6.4.1.1). Learners' development and the provision of a relevant academic programme are the primary goals. Effective schools address higher, as well as lower-order cognitive objectives; (see 2.3.5.3.2.3) provide an enriched environment through a variety of options (see 3.6.4.1.1); provide an in-depth coverage of content and continually assess learner performance (see 3.7.2; 3.7.3; 3.7.6). It will be seen that schools which have successfully implemented C2005 with its outcomes-based philosophy, are meeting this criteria.
- Effective schools provide instruction that promotes learner learning. They gear all of their efforts towards quality teaching and learning. They design

their programmes to ensure academic success and their educators believe that all learners can learn (see 2.3.1; 2.3.3.6.7; 2.3.8.3.1) and take responsibility for their learning. Educators believe in their own ability to influence learners' attitudes, and communicate their expectations to them, and adapt instructional programmes to their needs (see 4.7.4.1; 4.7.4.2; 4.7.4.2.2; 4.7.4.3). They use a variety of teaching strategies and regularly assess learner performance (see 3.1.4; 3.7.6.6). Effective schools recognise and reward effort and success.

- Effective schools have a positive school climate. Effective schools have a clear organisational personality characterised by state admissions, goals, values and standards of performance. They have a sense of order, purpose and direction that focuses on an atmosphere of encouragement in which learners are praised and rewarded; a work-centred environment; and high optimism and expectations for learner learning.
- Effective schools foster collegial interaction and have extensive staff development. Effective schools strive to create professional environments for educators that facilitate the accomplishment of their work, educators participate in decisions affecting their work and share a sense of purpose and community. Educators work together as colleagues to carry out instruction and to plan learning programmes. This encourages staff development (see 5.7.2), and coupled with in-service training programmes, allows educators to reflect on their teaching practices (Barry and Tye 1972: 46).
- Effective schools practice shared leadership (see 4.6.2; 4.7.4.2.3; 4.8). School leaders understand and use a leadership style appropriate for professionals; they solve problems through collaborative group decision making, delegate authority, communicate and promote cohesiveness and use their positions to recognise and reward staff and learner accomplishments. While no single leadership style dominates, common leadership features include setting and maintaining direction for the school and facilitating work of educators by adopting a wide range of supportive

behaviours. All decisions are made with input from those to be affected by the decision.

- Effective schools foster creative problem-solving. Staff members in effective schools are unwilling to settle for mediocrity; they turn their problems into challenges, design solutions and implement them (Drake and Roe 1986: 70); they go about their tasks with commitment, creativity, persistence and professionalism. Resources such as time, facilities, and staff expertise are used to maximum advantage to facilitate the process of teaching and learning (see 4.6.2.1; 4.7.1; 4.7.3).

Grösser (2001: 76) adds the following:

- Purposeful leadership of the staff by the principal, which occurs when the head understands the school's needs, is actively involved, and shares power with the staff (see 4.6.2; 4.7.1; 4.8). He or she does not exert total control over educators but consults them, especially in decision making such as division of work, curriculum guidelines, staff development issues and so on.
- Involvement of the deputy principal.
- Involvement of educators. In successful schools the educators are involved in curriculum planning and development of guidelines.
- Consistency among educators. Learners perform better when the approach to teaching is consistent.
- Intellectually challenging teaching. Learners' progress is greater where educators are stimulating and enthusiastic, and where educators frequently make children use powers of problem-solving (see 4.7.4.1; 4.7.4.2) with maximum communication between educators and learners.
- Thorough record keeping. The value of monitoring learner progress is important in the head's role, and is an important aspect of educators' planning and assessment.

4.5 Characteristics of an effective school within a C2005 environment

OBE school management is the process through which the SMT and educators know what to do and act upon it in a relevant and creative way, to establish a

dynamic learning environment. A relevant approach is one in which the instructional leader, through the SMT, structures an atmosphere of participation that allows educators to engage in learner-centred processes suitable for curriculum development and implementation in the classroom. A school that has successfully implemented a C2005 approach will have the following:

- A set of core beliefs and values in which:
 - ⇒ All people can learn.
 - ⇒ Diversity is honoured.
 - ⇒ Learning is valued.
 - ⇒ Learning how to learn is valued.
 - ⇒ The quality of everyone's learning is important.
- A purpose with a:
 - ⇒ Sense of identity.
 - ⇒ Sense of belonging and connectedness.
 - ⇒ School as the centre of inquiry.
 - ⇒ Focus on learners and their learning.
 - ⇒ Learner-focused work environment.
- Development of roles and relationships with the:
 - ⇒ Principal as leading learner.
 - ⇒ Parents as learning partners.
 - ⇒ Educators as learners and leaders.
 - ⇒ Learners as self-directed and committed learners.
- An organisation which can:
 - ⇒ Diffuse external and internal boundaries.
 - ⇒ Open communication and information flow.
 - ⇒ Develop networking and partnerships.
 - ⇒ Provide structures, time and space for dialogue and discussion.
- Practices:
 - ⇒ Continuous learning (team and organisation).
 - ⇒ Trust and risk taking.
 - ⇒ Participative decision-making.

- ⇒ Balance between inquiry and advocacy.
- ⇒ Experimentation.
- ⇒ Critical reflection. (Grösser 2001: 10-11)

The researcher recognises that many of these characteristics would also be applicable in a non-C2005 environment, but would like to emphasise that the following points especially need to be emphasised in managing C2005: all learners can learn, diversity is honoured, parents as learning partners, development of networking and partnerships, participative decision making.

Though lists of general characteristics are helpful they are not readily translated into specific prescriptions for management and leadership practice. What needs to be done to increase effectiveness, and how one does it, are situationally specific.

4.6 Educational leadership

4.6.1 The role of the educational leader

Educational leadership is the process of establishing, developing and maintaining a teaching staff that will provide the best opportunities for teaching and learning (NDE 1998b: 22-24). It is concerned primarily with the effective functioning of the school in providing the best possible learning environment (Drake and Roe 1986: vi). The role of the educational leader has many facets and De Waal (2001: 6) recognises the following:

- Leadership styles must be adapted in such a way that they help staff members to set standards and to encourage the whole school community to participate in the management of the school.
- Team work should be encouraged among educators so that they become part of the day-to-day decisions taken at the school.
- Staff members should be helped to solve their work-related problems.

- There should be opportunities for staff training and professional development.
- Effective school principals and other educational leaders determine the quality of educators' working lives by their management style.

Educational leadership also deals with school administration and management of the many facets that make up modern educational institutions. These aspects, important though they are, are the means to an end - that of teaching and learning. All administrative and managerial tasks that are carried out must support the main goal of schooling - that of providing quality instruction.

The principal of the school is generally accepted as being the leader of that school. The community, the staff and the learners expect the principal to lead and it is apparent that the question is not *whether* the principal must behave as a leader, rather it is a question of *how* he/she behaves to become an effective leader (Drake and Roe 1986: 105; Webster 1994: 15; Grace 1995: 37, 195; Davis and Ellison 1997: 137, 228). The old patterns of principal behaviour will not be sufficient to meet the new opportunities of leadership. The changing face of schooling in the 21st century (see 2.3.3.1; 2.3.3.2; 2.3.3.3) and the advent of C2005 have placed more demands on the role. Strategies for managing change need to be developed by principals (Grösser 2001: 21) (see 4.7.1). Basset, Crane and Walker (1967: 3), Webster (1994: 15) and Grace (1995: 53-54) maintain that leadership depends not only on the personal qualities of the leader, but on the nature of the situation. Here the researcher is referring to the nature of the situation as the complexities of C2005. The principals of now, and of the future, must prepare for an ever- changing world. In order to do this less time must be spent on administrative and managerial tasks, and they should turn their hands to instructional leadership to ensure quality learning and teaching.

Effective leaders do more: they set goals, control standards, create productive working environments and obtain needed support (Drake and Roe 1986: 106;

Webster 1994: 13; Davis and Ellison 1997: 78). Basset *et al.* (1967: 2) and Viljoen and Möller 1992: 11 maintain that efficiency in routine organisation does not make a good school efficient. In the larger sense the leader must have in mind the educational objectives of the school, and his organisation should be directed towards achieving these objectives. School systems need proactive, imaginative leadership to meet the nation's concerns about the quality of education, changes within the community and declining resources (Marshall 1992: 12).

Implicit in the Latin word "duco" is the connotation of leading or drawing out. In this educational context the job of leadership encompasses not only leading the staff and learners in academic issues, but also controlling the managerial and administrative side of non-academic school issues. Educational leadership is the task of the principal of the school. He assumes overall responsibility and accountability for all aspects of the school, managing and administering the many activities, people and processes that make up modern schools (Bernard 1981: 3).

In addition to this he is required to handle the disciplinary and pastoral demands of the learners. The definition of an educational leader by Byrne (in Theron and Bothma 1989: 13), is very apt, albeit a little simplistic in the light of the above:

"... principalship is the keystone of the administrative arch within the school itself ... the office of principal carries with it leadership responsibilities for organising, planning, directing, controlling and co-ordinating staff efforts in the development of effective instruction ...". Theron and Bothma (1989: 14) mention that "... educational leadership ... is not to be reconciled or equated with bureaucratic managership ...".

Drake and Roe (1986: 17) draw on their findings to caution as follows :

"... one gained a mental picture of a professional person being torn apart, on the one hand by an intense interest and desire to lead in instruction and learning, and on the other hand by the responsibility 'to keep school', the latter

being the proper management and administration of 'things' as expected by the central administration. In this little drama an eternal struggle seemed to take place, and in the end the strong instructional leadership role had to be set aside because of the immediacy and press of everyday administrative duties ...".

Reavis (in Cawood 1973: 112) reinforces these warnings: "... if he (the principal) is accepted by his educators merely as a school executive and not as a professional he cannot be regarded as a successful leader ...".

Schools have become so complex in recent years, that whereas, in the past, the principal could mainly devote his time and talents to instructional leadership, more and more demands are being placed on him to manage and control other areas in which he has had no formal training and little experience. These areas include budget and financial issues, building repair and maintenance and grounds supervision, to mention but a few. Each of these requires specialist knowledge and financial acumen that were not really necessary for the principals of the past. In many schools this has taken the principal away from instructional matters and he is perceived as the Chief Executive Officer of a company. This can lead to problems and frustrations. Keefe and Jenkins (1991: vii) maintain that "... the school's academic excellence must be the principle aim of proficient educational leadership ... (and) school administrators often find themselves increasingly uncomfortable as instructional leaders ... all too frequently, principals seek consolation in the less demanding tasks of day-to-day building supervision ...". Solutions must be found by delegating tasks, once the domain of the principal, to competent assistants and colleagues. One such task is that of the supervision of instruction. A school cannot be regarded as successful unless there is an effective instructional programme in place.

The additional responsibilities that these aspects have placed on the school have meant that the number of non-teaching staff employed by the school has grown from the solitary secretary to include a full-time financial manager, bookkeepers and a groundsman with his associated staff. Hostels are now run as private organisations and a senior matron usually controls purchases,

cleaning and menu preparation. Important instructional duties need to be delegated to the instructional leader to free the headmaster for his task of overall educational management.

4.6.2 The role of the principal

Although the study is not about the principalship, it is necessary for the purpose of completeness to define the role of the principal. In some schools the principal is fulfilling the role of the instructional leader along with normal administrative tasks. In schools where the principal is not the instructional leader, it is necessary that the principal buys into the OBE curriculum, otherwise the implementation of C2005 is going to be difficult (see 3.13). Quality teaching and learning needs effective and capable leadership. In order to initiate and implement change successfully, capable principals excel in the following skills, personal qualities, and characteristics:

- Good interpersonal relationships and ease of manner.
- A grounding in the ethics and philosophy of change.
- An understanding of how groups function.
- Familiarity with adult education and running of workshops.
- Wide teaching experience, a sound knowledge of educational management, and a good general knowledge of other disciplines.
- Initiative and innovative ideas.
- Skills in enhancing communication, trust, and self-confidence.
- The ability to generate effective positive relationships, to give support, to show empathy and sensitivity.
- A willingness to confront people where necessary without generating hostility.
- A sound understanding of how to handle conflict and stress.
- A flexible and adaptive management style.
- The ability to identify own and others' weaknesses and strengths.
- Skills in planning for action and implementation. (De Waal 2001: 2).

It is becoming more and more apparent that, with the complexity of school today, the participatory and whole school approach to leadership, involving the Senior Management Team (SMT), is essential in creating a learning organisation with learning being the central mission (see 4.3.2).

4.6.2.1 The managerial role of the principal

The researcher maintains that the qualities mentioned in section 4.6.2 above are necessary as they enable the principal to fulfil the managerial, instructional and leadership roles. The managerial role of the principal is a special kind of leadership that is task orientated, sets goals and tells people what to do. Management refers to maintaining the routine behaviours associated with running the school (Erlandson 1976: 22; Davis and Ellison 1997: 127). To fulfil the role of manager the principal must take heed of the following points:

- Must have the knowledge of the community and its needs and must be sensitive to cultural, ethnic and linguistic diversity.
- Is able to develop techniques of working with the learners in the school and developing platforms for learner governance such as the Representative Council of Learners (RCL).
- Be responsible for all disciplinary issues.
- Be responsible for the maintenance of all buildings.
- Have a knowledge of negotiation with trade unions.
- A thorough knowledge of financial issues as they pertain to school governance.
- Must be able to select and co-ordinate resources for teaching-learning programmes.
- Make use of public relations skills in communicating with the community.

4.6.2.2 The leadership role of the principal

The leadership role of the principal involves influencing the behaviour of an individual or a group in efforts towards achieving a goal. The leadership is relationship orientated and the he/she must motivate followers and provide support and encouragement in the attainment of the goals (Sergiovanni 1991:16). The leadership role of the principal involves the following:

- Oversee the schools' instructional programme. To do this the principal must have a broad educational foundation which will provide a strong intellectual base on which to develop a personal philosophy of education. This educational base must be broad enough so that the staff do not question the principal's academic integrity.
- Display a thorough knowledge of curriculum design and implementation in order to evaluate the strengths and weaknesses of various curricular programmes. This is especially true in a C2005 environment.
- Have a strong sociological background in order to understand the school and the school community as a social system.
- Must have an intimate knowledge of teaching strategies necessary for effective teaching and instructional improvement. C2005 has placed additional demands on this aspect of the principal's role.
- Develop working relationships amongst staff in such a way as to act as a resource and to foster staff morale, development and motivation.
- Selection, orientation and development of staff.
- Take the lead in staff appraisal. (Rossow 1990: 36-37; Grösser 2001: 41-43; De Waal 2001: 2-6).

4.6.2.3 The instructional role of the principal

The overriding philosophy of this study is that the instruction of learners, and learning by the learners, is the supreme reason for the school's existence. Quality teaching and learning can only come about as a result of effective

school management (see 4.4). Since teaching and learning are primary, the role of the instructional leader is paramount. The organisation and administration of the school as discussed in section 4.4, must be considered as a means and not an end. In developing this point of view the educator becomes the most important agent in carrying out the educational process. The role of the instructional leader is to help establish, develop and maintain a teaching staff that will provide the best possible opportunities for teaching and learning. The instructional leader works with the educators and learners to develop yet-to-be-reached levels of achievement and behaviour, and a learning environment of the highest order (Drake and Roe 1986: vi).

It has been mentioned that the principal cannot always be responsible for instructional leadership. This is a result of the demands that his administrative and managerial tasks place on him as a requirement for running the school. The complexities of C2005 and an outcomes-based programme have placed an additional emphasis on the role of the instructional leader and this further hinders the principal in assuming this role. The following administrative and managerial tasks might hinder the principal from becoming the instructional leader:

- The great majority of schools are so organised that the principal is the chief building administrator and held responsible for all management details. If the community does not observe a well-run institution, they lose confidence in other operations of the school. Good instruction requires a well-run school.
- Being considered an executive who is administratively in charge commands greater prestige in the business community than being an educator or academic. Rather than relating to the educators as colleague, master educator, head educator, or principal educator, the principal creates the image of administrator or chief executive. In addition, too many provincial administrations place priority on a well-run school, with major considerations on smooth operation; in other words, getting reports in on time, maintaining

well-kept buildings and grounds, properly managing supplies and equipment, and keeping the lid on personnel problems, community controversy, and discipline problems. It is easier to evaluate and account for job activities when dealing with people and things, than with instructional leadership and ideas. Safe, well-understood operational procedures, teaching methods, and instructional processes create less controversy and conflict.

- Orientation programmes for new principals emphasise management and administration more than they do instruction.

(Drake and Roe 1986: 18,19; Smith and Andrews 1989: 2; Theron and Bothma 1989: 69).

The instructional leader of a school is accountable for the academic achievement of learners and, taken collectively, the effective school studies (see 4.4) reflect the view that an instructional leader is directly responsible for improving instruction and learning (Smith and Andrews 1989: 3).

The emphasis of instructional leadership is concerned with stimulating and supporting those involved in teaching and learning in order to achieve the goals of the school.

Good schools use professional knowledge and skills to create conditions in which each child can grow to his or her full potential and all children are given an equal opportunity to succeed in society (see 2.3.3.6.7; 3.6.3.1.2). A good school must also create a quality work place for educators and increase the opportunity for quality teaching in each classroom (Smith and Andrews 1989: 2-3).

From the above therefore, educational leadership is basically comprised of managerial, leadership and instructional components. The managerial role is task orientated and informs people what tasks to perform, and thus applies to the maintenance of routine behaviours associated with the running of a school. These include issues related to curriculum, learner governance, discipline,

maintenance of buildings, financial issues and co-ordination of resources. The leadership role encompasses the influencing of people's behaviour in order to achieve goals. Leaders provide support and motivation to their followers by attending to curriculum, sociological and staff relational and appraisal issues. The instructional role covers the establishment and maintenance of the teaching staff who in turn provide the best possible opportunities for teaching and learning.

The principal of a school fulfils the role of educational leader, but increasing administrative and financial demands of modern day secondary schools often dictate against the principal being an effective instructional leader. In some schools it has therefore become necessary to delegate this role to a responsible senior member of staff.

4.7 The nature of instructional leadership

Instructional leaders need a sound knowledge of learners and the learning process if they are to be effective. C2005 aims to provide learners with opportunities to develop to their full potential as active, responsible citizens and therefore stresses the development of the learner as a whole person, equipped with the necessary life skills to make a meaningful contribution to society. Educators require a knowledge of cognitive, physical, psycho-social and moral issues to implement a curriculum with these outcomes. The role of the instructional leader is essentially about guiding teaching and learning, but, in addition, he/she must serve to focus the role of the educator on the development of the learners in totality. What this means is that educators have to be on the lookout for physical, psycho-social and moral factors which may impede learners' cognitive development (Kruger 1998b: 15). Instructional leadership therefore involves more than providing guidance on how to teach; it involves a knowledge and understanding of many aspects of learners' development.

Instructional leadership is about guiding teaching and learning so that it can happen effectively. It is a two-fold process involving the learner and the educator and the support structures needed to maintain and service classroom instruction. It is about providing direction, resources and support to educators and learners, for the improvement of teaching and learning in the school.

" ... The task of the instructional leader is the improvement of curriculum and teaching ... and to lead the faculty in making decisions about the learning that is to go on in the school ... " (Mazzarella 1976: 1). Wiles (1967: 117) defines the role of instructional leadership as "... the supervision of all the activities leading to the improvement of instruction, activities related to morale, improving human relations, in-service education and curriculum development ... ". Keefe and Jenkins (1991: 207) define it as: "... providing direction, resources, and support to educators and learners for the improvement of teaching and learning in the school ... ". For Rossow (1990: 42) it involves "... manipulating the technical variables (class size, schedules, staff assignments) that can even include alterations in the scope and sequence of the curriculum, or the distribution of instructional materials ... ".

With this in mind the researcher espouses the philosophy that effective teaching and learning should be the prime goal of any school. This is supported by research as follows: "... the most important obligation (of schooling) is to build a structure of relationships within schools so that all children can learn ..." (Smith and Andrews 1989: vii).

Drake and Roe (1986: vi) contend that "... instruction of the students and learning by the students is the supreme reason for the school's existence ...", while Smith and Andrews (1989: 4) state that "... the core technology of schooling is teaching and learning ...". The researcher supports these views in that, as an instructional leader, he has made a professional commitment to improving the quality of teaching and learning. All the school's resources, physical and human, need to be marshalled for this purpose and this is the duty

of the instructional leader. Nothing does more for effective teaching and learning than having an infrastructure in place that sees to the provision of resources, motivates and supervises staff, and takes responsibility for the academic achievement of learners.

A survey of the literature recognises the following as the overall responsibilities of an instructional leader and these broad responsibilities lead to more specific tasks that need to be fulfilled. The instructional leader:

- Prioritises curriculum and instruction issues.
- Dedicates himself towards the goals of the school and the community.
- Is able to find and make use of resources that are needed to achieve the goals of the district and the school.
- Creates a climate of high expectations within the school that is characterised by a feeling of respect for educators, learners, parents and community.
- Functions as a leader and is directly involved in instructional policy by being able to communicate with educators; supports and is involved within staff development programmes, establishes teaching incentives for the use of new teaching strategies and displays a knowledge of departmental curriculum material.
- Continually monitors and evaluates learners' progress and the educators' effectiveness in meeting goals. To do this he needs to visit the classroom frequently; give clear evaluation guidelines and feedback, as well as assist learners and educators in improving their performance.
- Is committed to academic goals, shows an ability to develop and share long-term goals for the school as well as strong achievement goals that are consistent with the department's goals and priorities.
- Collaborates with others in making decisions in school decision processes by allowing educators to feel free to exchange ideas, work in collaborative groups and share a commitment to the academic mission of the school (see 4.7.1).

- Effectively and efficiently makes use of resources such as materials, time and support which allows the staff to meet the academic goals of the school effectively.
- Is instrumental in creating order and discipline by minimising factors that may disrupt the learning process (Drake and Roe 1986: 82, 83, 86; Smith and Andrews 1989: 8-9; Theron and Bothma 1989: 86, 88-91; Grace 1995: 10, 17-18, 21, 45; Davis and Ellison 1997: 167, 231)

From the above broad generalisation it is necessary to focus on the specific tasks that need to be carried out by the instructional leader in order for quality teaching and learning to take place. The researcher identifies the following specific roles of an instructional leader that need to be fulfilled, especially within a C2005 context:

- The management of the paradigm shift; curriculum change and curriculum implementation.
- The creation of a learner-centred environment.
- The management of human resources; staff development.
- Teaching strategies in a C2005 environment.
- The provision of resources and the financial implications.
- Effective communication.
- Instructional resource.
- Visible presence.
- Supervision and evaluation of instruction and quality control.

These will now be discussed in the following section.

4.7.1 The management of the paradigm shift; curriculum change and implementation

The introduction of OBE as an approach to deliver C2005 has meant changes to the curriculum, how it is delivered in the classroom and what we expect all learners to achieve. Change will impact on teaching and learning practices, on how schools are managed at all levels and on all processes, strategies and

structures which are to be put in place. Kruss, (in Gilbert 1999: 145), cautions the instructional leader that C2005 implementation is not simply a straightforward administrative task. It is increasingly clear that, while competent administration is critical, the real world of policy implementation in schools is rarely, if ever, a simple and straightforward matter.

C2005 as a curriculum reform movement was introduced into South Africa at a time when the educational environment was already being subjected to global and local changes (see 2.2; 2.3.3.3; 2.4). Gilbert (1999: 139-144), lists the following changes that are worthy of note as they emphasise the influence that they had on the system at the time of the introduction of C2005. Each of these need not be explained as they are self explanatory.

- Budget cuts.
- Introduction of the norms and standards for school funding.
- The rise of unionism.
- The role of the media and increased media scrutiny.
- Legal challenges.
- The effect of the South African Schools Act on governance.
- The management of schools.
- The increase of parental demands.
- Increased public accountability.
- The economic environment as it affects the school's income.
- Changes to the learner:educator ratio.
- The removal of corporal punishment.
- A lack of sufficient learner support material.
- Growth in the awareness of learners' rights.
- Time taken by educators in fund-raising.

Many of these concerns are still with us today and the instructional leader has got to work in and around these issues. Many of these issues outside the school have to be taken into account when dealing with changes inside the school. The instructional leader has got to work with these external pressures

that are impacting negatively on educator attitudes. Many of these issues are still with us, and are not going to go away, as they form part of the functioning of our schools in today's world.

In a C2005 environment, the premises and principles of an outcomes-based approach to education need to be addressed in the management of change.

The implications of what each premise and principle means for curriculum development and delivery are important. There are essential considerations for the kind of teaching and learning practices which need to take place. Planning is highlighted for ensuring effective teaching and learning. Learner-centredness is the key focus of what happens in the classroom and in the school. That learners will, and must learn for life is of paramount importance. For this to be achieved the outcomes inherent in each premise and principle must be clear, and the attainment of each outcomes must be managed (Strydom 2001: 6).

School-based management is challenged by curriculum reform in that the changes it imposes on schools, management, planners, educators, learners, and so on, will strongly encourage all school role-players to reform their practice and plans.

In changing practices and plans it is understandable that educators and learners will ask questions such as:

- Why change?
- What must change?
- How do I change?
- What are the risks of me changing?
- What support can you give me as I change?

The reasons provided for change, the support put in place for educators and learners as they change, not getting change completely right, and so on, will all

impact on how readily the change is made. Grösser (2001: 8), points out the following important aspects about change:

- You cannot make people change. There must be commitment to change, and this will happen when people buy into the changes being made. Only then can there be commitment to the change process.
- Change is personal and is a developmental process. Change will not happen overnight.
- There is no blueprint for change. Educators and SMTs, as agents of change, must be developed to engage in what is implied by the change process.
- There must be a shared vision of change within the school.
- Change is an individual and a collective responsibility. Each and everybody in the school must change together towards the same vision.
- The system must support the changes which are encouraged.

The instructional leader is advised to keep in mind the following when managing change:

- Involve all appropriate stake-holders in the process.
- Get visible support from senior school and education department management.
- Gain the support of respected opinion leaders.
- Concentrate first on those who are not resistant to change.
- Stay away from deeply entrenched habits and practices which do not impact significantly on the curriculum reform process.
- Reduce the threatening aspects of change.
- Identify and mitigate potential obstacles to facilitate successful implementation.
- Minimise the risks and emphasise the benefits.
- Present the ideas enthusiastically.
- Build a track record of success. (Grösser 2001: 9)

Jansen (1999b: 88-97) cautions that instructional leaders should be aware of the following factors with regard to curriculum change: Firstly, curriculum policy implemented without curriculum support fundamentals such as educator training and resource provision, will often create cynicism amongst practitioners if they are given any lack of evidence to signal improvement in teaching and learning at the classroom interface. Secondly, the instructional leader must be aware that the re-deployment scheme of educators came into being shortly after the implementation of C2005. This coupled with the uncertainty of tenure was hardly conducive to curriculum change. Thirdly, a change in educator behaviour is only possible if a shift is made in educator understanding; in other words, the educator must be aware of why the change is necessary and the ways in which changing teaching improves learning (see 4.3.2; 4.4; 4.6.1; 6.6.1).

Jansen (1999b: 88-97) suggests six specific steps that the instructional leader needs to take to address these issues:

Step 1: Set modest expectations for curriculum change. Instructional leaders should be careful to introduce curriculum change in small incremental steps. Curriculum change is a process and modest outcomes will make educators believe that improvements in teaching and learning can take place which will prevent them from becoming cynical.

Step 2: Adequate resources must be available for the curriculum change project. Curriculum change requires well trained educators, the basic minimum of infrastructure (including texts) and a well-organised support system at classroom levels. Strategic resources must be allocated to support curriculum change.

Step 3: State a clear objective for curriculum change. The instructional leader needs to outline clearly what the curriculum change is required to accomplish and within what time frame. A curriculum change project at school level must

set clear time frames and clear and realisable objectives within the broader statement of curriculum change expectations.

Step 4: Outline a well-defined strategy for implementation of curriculum change. The curriculum change plan offered by the instructional leader should be *coherent, focused and educationally defensible*. The plan should be *coherent*, in that the policy goals embedded in the project should not contradict accepted norms and the vision of the school. It must also be kept in mind that, at the time of C2005 implementation, the new class size norms (leading to larger class sizes) were being implemented. It should also be *focused*, in that the connection between what you intend to achieve and how you achieve it, should remain coupled within the implementation process. And finally, it should be *educationally defensible*, in that both objectives and strategy should have a rationale which, in the final analysis, are based on improvements in the learning environment. All other curriculum objectives (such as extending the knowledge base of educators or writing coherent range statements), are largely a means to an end, that is to say, enhancing the quality of learning experienced by the learners in a particular classroom setting. A reliable measure of the worth of any curriculum change strategy is the extent to which it deals with the bottom-line, in other words, learners and learning.

Step 5: Present the curriculum innovation in language which is simple and accessible. One of the essential tasks of the instructional leader is to reduce the verbose policy documents of C2005 to understandable user-friendly language. It is clear now, with hindsight, that the most basic error associated with OBE is that its language was complex and intimidating, and alien to the world within which educators work. It is therefore imperative that the instructional leader has the knowledge and the insight to translate the policy documents for practical classroom implementation (see 4.7.10.1; 5.7.2).

Step 6: That the curriculum change must be open to the dialogue, criticism and formative correction of the school. The instructional leader must instil the

thought that learning about policy is a stance, an orientation and an attitude. It is understood that policy is not implemented by decree, but that it is developed and improved upon by learning throughout the different stages of the implementation process. The instructional leader should not only be concerned about doing things right, but choosing the right things to do. Staff must be educated that policy learning and curriculum change is a question-posing stance rather than a simple solution-imposing approach.

The instructional leader, through the SMT, will align current practices and plans to strategies, structures and systems which bring the school closer to attaining the outcomes implicit in each of the premises and principles. Not all current practice is too far removed from where we need to be in terms of an OBE approach and practice. The challenge is to select the best practice for all schools, to accommodate the diversity of needs which exists in all schools and to bring practice as close as possible to the broader national attention of the OBE system.

The researcher identifies with the issues listed by Grösser and Jansen. In his experience, the management of the change to C2005 has proved to be the most challenging aspect of instructional leadership. Staff are by nature conservative and reluctant to change. Participative management proved to be the most effective style of dealing with the problems (see 6.6.2.2.1, 6.6.2.2.7). Educator training and the provision of resources (support or physical) are vital elements in the success of C2005 implementation. The contact and weekly meetings with staff have proven to be most successful in leading staff through the confusion of C2005 implementation.

4.7.2 The creation of a learner-centred environment

A learner-centred environment is where the learners are more in control of their own learning. Educators may see themselves as experts; however the learners may be allowed to decide on the content of the lesson, how it is approached and

whether they have gained enough knowledge before moving forward in their instruction. The learners' input, views and involvement are highly valued, although the educator is there to provide the learner with the opportunities needed to discover facts and to apply their newly-acquired knowledge. The educator still remains the main agent for promoting teaching and learning. In outcomes-based education, the educator is no longer merely presenting the content, but is shifting towards the role of facilitating the learning process. The educator acts as an experienced mentor who advises learners on their approaches to learning and life (Van Der Horst and McDonald 1997: 231).

Learners are regularly asked for input and two-way communication is promoted. Classroom activities are characterised by group work and problem-solving (see 4.7.4.1; 4.7.4.2). Within this environment the educator facilitates, guides, coaches and thus has a cognitive-mediation view of learning (learning depending on learners' cognitive activities and constructivist principles). He sees the learner-centred approach to teaching as the learner being the central element in the teaching/learning process (Kruger 1998a: 110 - 112).

Learner-centred teaching environments have their roots in the constructivist theories of Piaget and Vygotsky (see 2.3.5.3.2; 2.3.5.3.4), and Vygotsky's socio-cultural theory contends that all higher mental processes are generated through mediation, which is the act of intervening between people to resolve conflict. In Vygotskian theory, a mediator comes between a learner and his or her environment (see 2.3.5.3.4.1) in order to assist thinking and action, with the purpose of developing the learner's cognitive capacity (Gouws 1998b: 78). The following are ways in which cognitive development can be promoted through constructivism and mediational instructional support:

- Scaffolding: Educators offer support, guidance, and reminders. They do not offer too much support, however, and they extricate themselves as learners begin to function independently.

- **Articulation:** Educators require their learners to explain what they are doing. Thus, a mathematics educator may ask learners how they solved a problem and why they picked one particular method over others.
- **Reflection:** Educators encourage learners to compare their work with that of others, including the educator and other learners. For example, learner educators watch videos of themselves teaching and reflect on their work.
- **Coaching:** Educators watch learners attempt a task, and they offer hints, feedback, and guidance. As they coach, they sometimes offer additional modelling or explanation. (Gouws 1998b: 88)

The creation of a learner-centred environment is not an easy strategy to adopt, especially by educators rooted in the traditional teaching paradigm, and is part of the paradigm shift that is necessary for educators to make if they are going to be successful C2005 facilitators. Vakalisa (1998: 179-184), Newby, Stepich, Lehman and Russell (2000: 91-113) and Grösser (2001: 29) offer the following hints for instructional leaders to use in order to assist educators in establishing learner-centred classrooms:

- Seating should be in groups and seating arrangements changed depending on the lesson.
- The creative use of teaching and learning aids such as wall charts, videos and so on.
- The educator must move around the classroom away from behind the teaching desk. Continuous feedback is given to the learners in this way.
- The learners should be encouraged to share ideas, ask questions and perhaps themselves move around the classroom or its environs.
- The learning activities must be at the right level with clear outcomes.

A learner-centred approach suggests performance-based assessment that informs teaching and learning. Multi-dimensional assessment approaches are needed (see 3.7), which include the assessment of knowledge, abilities and

thinking processes, as well as the diverse ways in which learners understand (Muthukrishna 1998: 149).

4.7.3 The management of human resources, staff development

Professional development means helping educators to develop their teaching skills and classroom management, and to create a better understanding of the learners and their learning. Development programmes are essential to the success of any school and it is the task of the instructional leader to initiate and implement programmes that will enhance professionalism. Professional development comprises of an awareness of new teaching techniques and a thorough knowledge of how to increase skills in the application of these techniques. It can be implemented either as a diagnostic to correct professional shortcomings, or as an aid to create opportunities for development. The latter approach is more appropriate for increasing educator motivation and skill. Schreuder, Du Toit, Roesch and Shah (1993: 2) show from their research that educators prefer to develop from this perspective and it offers them the opportunity to plan their own development and to achieve greater self-fulfilment in their careers.

Motivation is a difficult concept and is not something done by a leader to someone; it arises from a matching of all the demands of the situation and has been described as an internal set of drives that lead an individual to initiate and continue voluntary action in order to achieve personal goals (Reddin 1970: 160; Glatthorn 1990: 110).

Research on effective schools in America in 1983 (Wilson and Corcoran 1988: 84) shows that educators respond to, among other factors, opportunities for professional growth. Good teaching is common in successful schools and stems from opportunities for personal progress and growth. Staff involved in active staff development programmes including weekly meetings, monthly

workshops and subject-oriented courses leading to the mastering of content, show a high degree of commitment to the organisation.

The research done by Wilson and Corcoran (1988: 89-91), reviewed data collected from 571 American secondary schools and their findings include the following two points:

- School leaders should be encouraged to seek opportunities for professional development.
- Leadership should be focused on building supportive learning environments that benefit learners.

It is obviously apparent that, firstly, staff need professional development programmes (see 6.6.2.2.5) and, secondly, modern-day instructional leadership should be learner centred. This involves the building of a supportive learning environment so that learners can achieve and succeed.

The instructional leader has an obligation to initiate and promote staff development programmes. Rogus and Wildenhaus (1991: 133) maintain that this includes a commitment to enabling or empowering others to take increasing responsibility for their professional growth; it also encompasses a broad series of activities pursued by a school's staff in order to enhance their professional effectiveness.

In an informal way the instructional leader will use any day-to-day interaction with staff to promote the ethos of professionalism, and in a more formal way will innovate and design structured programmes to promote group development. The researcher notes with interest that Rogus and Wildenhaus (1991: 135) argue that informal contacts between the instructional leader and staff are vital since educator self-image is shaped by these interactions. A sensitive instructional leader will use these contacts to treat staff as colleagues and professionals rather than as people to whom orders are given. The positive atmosphere that should be created will give the formal, planned programmes

more of a chance to work since staff commitment to such programmes is essential for their effectiveness.

Although it is beyond the scope of this study to discuss the details and structure of staff development programmes, the researcher would suggest the following practical guidelines when designing staff development programmes:

Table 4.1 Table of guidelines for staff development

Individual Improvement	School Improvement
Personal growth planning	Curriculum development
Conference participation	Peer supervision
Informal discussions with instructional leader/other staff	Collegial support groups
In-service courses	

Cawood (1973: 113), Grace (1995: 155-156) and Davis and Ellison (1997: 211) propose the following methods to help the instructional leader enhance the professional development of educators:

- Make the educator feel part of a group.
- Let the educator know that what he does is important.
- Involve staff in planning and decision making by employing a democratic and participatory leadership style.
- Recognise each educator's input at staff meetings.
- Have a structured instructional programme in place.
- Establish an effective system for subject meetings.
- Recognise group and individual achievements on the part of staff.
- Encourage participation at conferences and courses.
- Provide a source of professional and educational literature.
- Encourage educators to further their professional qualifications.

Blair, Jones and Simpson (1969: 587), Grace (1995: 155-156) and Davis and Ellison (1997: 211) note that the educator's professional growth, or lack of it, will be reflected in his methods, in his willingness to change, in his working relationship with children, and in his overall efficiency as a educator. It is imperative, therefore, that the instructional leader address this issue. Under his care he will have good, average and weak educators and he must see to it that each of them is given an opportunity to develop.

Another important role of the instructional leader in the context of staff development is the supervision of the beginner educator. From the researcher's experience, he has found that many educators leaving tertiary institutions have not had a thorough (if indeed any) grounding in the fundamentals of OBE and C2005. Together with the problems and trauma associated with the first year of teaching, they are sometimes thrown in at the deep end, and are required to take responsibility for learning areas in the GET phase. The problem is usually compounded when such a educator is required to teach a learning area such as Human and Social Science, which essentially has a Historical and Geographical component. The beginner educator is not always trained in both disciplines and this adds to the amount of support needed from the instructional leader. With the advent of the first exit examination in the GET phase at the end of 2002, a beginner educator in Grade 9 will need additional attention. Furthermore, the rationalisation of teaching staff by the National Government has meant that, in more affluent communities, additional staff are appointed and paid by the Management Councils of schools and some of these educators, especially in key subjects like Maths, Science and Technology, have no teaching qualification at all. Once again, intensive support and on-the-job training is required.

The beginner educator will have many problems including:

- Large classes with perhaps less gifted learners. These classes need special treatment with regard to teaching styles and discipline.
- Careful planning is required and the instructional leader needs to spend a lot of time in the early stages of a new educator's career.

- Instructional problems, because the learning material is not always familiar. Problems with evaluation, which nowadays is mainly continuous evaluation.
- Disciplinary problems arising as a result of ineffective teaching methods and insufficient planning. (Smith and Andrews 1989: 42-43; Gibbs and Jenkins 1992: 159-164)

The instructional leader has a moral and an educational obligation to counsel, guide, support and monitor the new educator to the best of his ability. Theron and Bothma (1989: 116) advocate the use of guardian educators to assist beginner educators to such a degree that mistakes are eliminated and the learners are not negatively affected.

4.7.4 Teaching strategies within a C2005 environment

4.7.4.1 Introduction

Within an outcomes-based approach to education such as C2005 it has been noted that a paradigm shift is required on the part of the educator and indeed in the whole school management, in order to understand that teaching strategies within a learner-centred environment such as C2005, are very different from those of the traditional educator-centred paradigm. The more familiar teaching strategies such as the lecture method, the drill method, the demonstration method, the text book method, and so on, still have their place in a C2005 classroom, and with experience the educator, with the guidance of the instructional leader, will know under what conditions these teaching strategies are to be used. The interview with Vermeulen (see 5.7.4) indicates that there is still a place for these teaching strategies, especially when new content matter is being presented. It is necessary for the instructional leader, in order to guide staff development, to have a knowledge and understanding of learner-centred teaching strategies and their philosophical underpinnings that are necessary in a learner-centred environment such as OBE and C2005. These include

constructivism, problem-solving approaches, educator-facilitated approaches and so on. These are discussed in the section below.

4.7.4.2 Constructivist strategies

Effective teaching leads to effective learning. The policy document *Outcomes-Based Education in South Africa: Background Information for Educators* emphasises the fact that learning in an outcomes-based approach is based on constructivism. The theory behind constructivism has been detailed in sections 2.3.5.3.3 and 2.3.5.3.4, and it is now necessary for the instructional leader to put this into practice. The constructivists view of learning shifts the focus from how learners respond to new information (the behaviourist view), to how they acquire and construct new knowledge. The role of the educator becomes that of a facilitator (see 4.7.2; 5.7.4.2) and mediator, who guides learners towards developing more useful knowledge for solving problems. In adopting a constructivist approach, knowing cannot be separated from doing (Gouws 1998a: 72). This view of teaching is supported by C2005 (see 3.6.3.1.1; 3.6.3.2; 4.7.2).

As outlined in sections 2.3.5.3.3 and 2.3.5.3.4, constructivism is rooted in the work of Piaget, an individual constructivist, who espouses that knowledge construction is basically an internal (in the head) and individual process. His ideas have inspired learner-centred approaches, of which discovery learning is an example (see 4.7.2). It is also rooted in the work of Vygotsky, a social constructivist, who proposes that knowledge originates in a social context and is shared with others rather than represented solely in the mind of an individual. As people interact, the process of sharing results helps learners refine their own ideas and shape the ideas of others. Vygotsky's ideas have also inspired learner-centred instructional approaches, of which co-operative learning is an example (see 4.7.4.5).

New information obtained by learners is assimilated and accommodated into existing, experiential frameworks, and new structures and concepts are formed (NDE 1997g: 43; Gouws 1998a: 72).

Learners in Grades 7, 8 and 9 are at the stage of formal operations and Adams (1998: 41-42), using Piaget's four stages of cognitive development, offer the following general, practical guidelines for outcomes-based classroom practice:

- The learners must be viewed as active constructors of meaning, who need constant opportunities to handle objects and manipulate thoughts.
- Discovery learning is a powerful tool for educators. Learners need plenty of varied experience over time for structural change to their schemes to take place; in other words, learners must discover for themselves.
- There needs to be a match between the demands of a learning task and the current cognitive capacity of learners.
- We must not assume that all learners in a given class will be at the same stage of cognitive development. There needs to be a variety of learning experiences appropriate for learners at different levels of cognitive development.
- Problem-solving is a powerful tool for the enhancement of cognitive development.

More specifically, they offer the following guidelines for teaching learners who attained formal operational thought:

- Provide ample opportunities for learners to explore hypothetical issues.
- Give all learners plenty of practice in problem-solving and scientific reasoning, regardless of the subject.
- Wherever possible, teach broad concepts rather than isolated facts, using material relevant to the learners' own lives.

(De Wet *et al.* sa: 79-85; Beard 1969: 97-112; Farmer and Farrell 1980: 64-65; Collette and Chiapetta 1986: 55; Adams 1998: 41-42).

One weakness of current thinking is that it does not easily structure subject-content in a logical, sequential manner and learners at the Concrete operations level, still have great difficulty in integrating Maths and Science concepts that have been presented in many different learning areas. Work given to learners must be appropriate to their developmental age; if not, learning outcomes might not be satisfactorily achieved.

4.7.4.2.1 Preparedness and patience

From the researcher's experience as an instructional leader, many younger, inexperienced educators tend to rush into content and concepts too quickly, without sufficient thought as to the careful formulation of unit or lesson outcomes. Usually, work that is difficult is presented in too hasty a manner and the objectives of many lessons are not met. The work has been taught, but not assimilated. This, coupled with the need to move on to the next section of the syllabus, in terms of mastery learning, is a recipe for disaster - as instead it ends up as mystery learning. In addition, educators must allow enough time for learners to reflect on their work. Without reflection, knowledge is not satisfactorily assimilated. With a small sacrifice of time, pausing after questions and the posing of open-ended questions that provoke debate and thought, brings gainful results. Instructional leaders have a vital role to play in monitoring and guiding, especially in the co-ordination of the integration facets of innovative policies.

Quality instruction demands that knowledge presented to learners is built onto existing mental frameworks in a series of small, incremental steps. As mentioned earlier in this section, the younger learners of the GET phase need to make sense of any information before they can make it their own. It is the educator's role to make the content of textbooks and other resources meaningful and understandable to learners. Information must be taught in such a way that it adds to the learner's experiential framework, but does not confuse it (Adams 1998: 43).

4.7.4.2.2 Constructivist principles

It is necessary for quality instruction that the theories of constructivism be kept in mind by educators, and Brooks and Brooks (in Carvin 2000: 1) offer 12 principles essential to constructivist teaching. Where parallels can be drawn with OBE, the researcher has indicated these in italics:

- Encouragement and acceptance of learner autonomy and initiative (*all learners can learn*).
- Utilisation of raw data and primary sources along with manipulative, interactive, and physical materials (*all learners equipped with knowledge*).
- When planning, educators use cognitive terminology such as 'classify', 'analyse', and 'create' (*concept integration*).
- Allowance of learner responses to drive lessons, shift instructional strategies, and alter content.
- Inquiry concerning learners' understanding of concepts before sharing their own understanding of these concepts (*concept understanding and integration*).
- Encouragement of learner inquiry by asking thoughtful, open-ended questions and encouraging learners to ask questions of each other (*instructional coaching*).
- Encouragement of learners to engage in dialogue, both with the educator and with one another (*co-operative learning*).
- Pursuit of elaboration of learners' initial responses (*instructional coaching*).
- Encouragement of learners in experiences that might engender contradictions to their initial hypotheses and then encourage discussion (*concept integration; instructional coaching*).
- Allowances for waiting time after posing questions.
- Providing time for learners to construct relationships and create metaphors (*concept integration*).
- Nurturing learners' natural curiosity through frequent use of the learning cycle model (*successful learning creates more successful learning*) (Carvin 2000: 1-2).

4.7.4.2.3 Practical proposals

Piaget also suggests ways in which the principles of constructivism can be incorporated into classroom instruction. He maintains that the twin principles of assimilation and accommodation are necessary for effective teaching and proposes three ways in which this can be carried out in the classroom:

- The most important role for the educator is to provide an environment in which the child can experience spontaneous research. The classroom should be filled with authentic opportunities to challenge the learners. The learners should be given the freedom to understand and construct meaning at their own pace, through personal experiences, as they develop through individual developmental processes.
- Learning is an active process in which errors will be made and solutions will be found. These are important to assimilation and accommodation in order to achieve equilibrium.
- Learning is a social process that should take place among collaborative groups with peer interaction, in settings which are as natural as possible.

(Donald, Lazarus and Lolwana 1997: 43-47; Adams 1998: 41-43)

It is the role of the school's management team to orchestrate the numerous complex systems which make the whole school environment. It is the role of the instructional leader to ensure quality delivery of teaching and learning in classrooms by focusing on the most complex of all educational systems, the curriculum. The principal focus of the instructional leader is on educators and their work, and his primary role is to monitor and manage teaching and learning in classrooms. However, classrooms are situated in institutions and systems (for example the school itself), the culture of which is critical to quality instruction. Educators' work is thus constrained by a myriad of influences emanating from all directions of the web which comprises public schooling. The classroom is located in this complex arena of structural and sociological features of the education system and the discussion on school reform which follows, places the classroom in this context (Diphofa *et al.* 1999: 8).

In order to make the shift to the constructivist teaching and learning paradigm, a more flexible system is required which will allow for differing learner competencies, different learning styles and different learning preferences (NDE 1997g: 43). These are characteristic of a learner-centred approach to teaching and learning (see 4.7.2), and are supported by teaching strategies which empower and motivate learners. All learning programmes should develop learners' critical thinking and problem-solving skills (see 4.7.4.1; 4.7.4.2). (NDE 1996: 68; Taylor 1999a: 119). Teaching and learning processes should thus encourage the following on the part of the learner:

- Independent learning.
- Critical thinking.
- Problem-solving.
- A positive self-image.
- Research skills.
- Data analysis.
- Creativity.
- Construction of knowledge.
- Reflective thinking.
- The development of values and attitudes.

If these ideals are to be fostered, the teaching-learning process should be learner-centred, active, participatory, investigatory, co-operative, supported and differentiated. In other words, these ideals must be underpinned by the critical outcomes of C2005 (see 3.6.4.1)(NDE 1997g: 68).

The critical outcomes of C2005 override all teaching and learning programmes, and, through the specific outcomes of the learning areas, it is implied that the memorisation of facts by rote learning will not be enough for learners to achieve the outcomes. Problem-solving skills, effective communication, the ability to work in a group and so on, can only be achieved through development and practice. In terms of teaching and learning programmes, this could involve the following:

- Active learning with opportunities for learners to develop research skills.
- Opportunities for learners to practice skills.
- Co-operative as well as individual learning opportunities.
- Formative assessment in order that the developmental process of learning can be emphasised.
- Integration of theory and practice, context integration between learning areas and integration between classroom activities and real-life situations (NDE 1996: 37, 44).

Constructivist strategies are a necessary part of teaching and learning in a C2005 environment. Teaching is learner-centred and educator-facilitated. Learners are active participants in the learning process and teaching strategies need to reflect this. The implication for the instructional leader is that educators need to be (see 6.3.4) trained in constructivist teaching strategies. The researcher's experience has shown that educators in general are reluctant to let go of traditional didactic classroom teaching strategies. A learner-centred classroom tends to be more noisy than normal because of group work where learners are discussing tasks at hand and are engaged in learning activities. Group work itself is not popular amongst educators; careful planning and adequate provision of resources are required. Assessment of learner performance (see 3.7.6) requires a different approach when adopting constructivist practices. Learners need to be given tasks that initiate thinking skills and they need continuous assessment to guide them. In summation then, constructivist teaching practices require a great deal of educator training and staff development on the part of the instructional leader.

4.7.4.3 Deductive and inductive teaching

Deductive and inductive strategies have, since ancient times, been the dominant strategies of teaching. The principles underlying these two strategies are fundamental and as such form the basis of all contemporary approaches to teaching. Aristotle was the foremost exponent of the deductive strategy, and it

is interesting to note that his influence was so extensive that it became the foremost strategy in the schools of Western Europe throughout the entire mediaeval period, until well into the 18th century, and is still in use today. The deductive strategy is based on the principle of *a priori* logic, which proceeds from some general law or premise, to the effect. Educators using this deductive strategy begin by giving learners some general statement, and they go on to apply this to specific cases. The learners' active participation is thus confined to numerous examples by the application of the given statement. For example, in the learning area Language, Literature and Communication, the educator would give the learners the rule of the use of the apostrophe, and the learners have to apply this rule to various examples. It is apparent from this strategy that learners can make no discoveries for themselves, and it is used to transmit, quickly, subject content to learners. However, in lessons where learners can make discoveries for themselves, the inductive strategy should rather be used. The inductive approach proceeds from particular cases to the general rule, many examples of a certain kind are examined and then a conclusion is drawn. To use the example of the apostrophe again, the educator would give the learners sentences in which the rule of the apostrophe is correctly applied and then ask them to induce the rules (Vermeulen 1997: 82; Vermeulen 1998 33-34).

It would be a mistake to conclude that the inductive approaches are always to be preferred to deductive approaches. In most lessons both methods are employed, with the presentation part of the lesson being given inductively and the application part deductively. Deductive methods have a distinct advantage in that it is not necessary for everybody to rediscover all general principles and laws (Vermeulen 1998: 33-34).

The implication, for the instructional leader, of deductive and inductive teaching is once again educator training and staff development.

4.7.4.4 Problem-solving

This teaching strategy is also called the heuristic method, which means '*to discover things oneself or to solve a problem (through inductive reasoning) by evaluating past experiences, and move by trial and error to a solution*'. The educator uses this method when he gives learners an opportunity to make certain discoveries or to arrive at conclusions by themselves through self-activity, that is to say by experimentation, problem-solving, or projects. A typical characteristic of this method is that it always concerns a problem to be solved. The educator must understand that, with this method, if we expect the learner to come to grips with the problem, it must be presented in a form which the learner can understand, and the educator must give strong and purposeful guidelines that lead learners to the core of the problem. McCown, Driscoll and Roop (1996: 229) define the problem-solving method as "... the activity for applying rules, knowledge, and cognitive strategies to move from the current situation, or initial state, to a desired outcome ...".

4.7.4.5 Co-operative learning

Co-operative learning is essentially learners working together to obtain certain goals. This mutual behaviour allows learners to learn from one another. This type of learning activity is valued for its cognitive, social, emotional and moral development of learners (Donald *et al.* 1997: 123; Vermeulen 1998: 21). It is best described as a team approach to learning, where each member of the group (3 or 4 individuals) is usually dependant on the other members in order to accomplish a specific task or assignment. The approach is useful at all levels and in all learning areas. Each member of the group is accountable to the whole group for a particular part of the lesson and therefore to the overall success of the team. Likewise, the team's success is dependent on everyone learning all the parts of the lesson, so it is up to the team to make sure that each member knows the material. This leads to positive inter-dependence among participants, and fuels the group to interact in positive ways by encouraging

members to reflect on the quality of group functioning. Learners bring their own experiences and backgrounds to the learning situation and, within the group, tailor peer instruction to their individual understanding ("kid speak"), thereby increasing the likelihood of understanding, effective encoding and retrieving information (Newby *et al.* 2000: 93).

Co-operative learning techniques require educators to place themselves in an entirely different role from educator-centred techniques such as lecturing. To some degree educators share authority with learners over the knowledge they gain and, by so doing, become collaborators sharing responsibility for what is to be learned. From the above, co-operative learning can be seen as having the following elements:

- Individual responsibility.
- Collaborative skills.
- Positive inter-dependence.
- Group processing.
- Face to face interaction. (McCown, Driscoll and Roop 1996: 409-410)

Table 4.2 Traditional and co-operative learning groups

Co-operative learning groups	Traditional learning groups
Positive inter-dependence	No interdependence
Individual accountability	No individual accountability
Heterogeneity	Homogeneity
Shared leadership	One appointed leader
Shared responsibility for each other	Responsibility only for one self
Task and maintenance emphasised	Only task emphasised
Social skills directly taught	Social skills assumed and ignored
Educator observes and intervenes	Educator ignores group function
Groups process their effectiveness	No group processing

(Vermeulen 1998: 21)

There are many different approaches to co-operative learning such as peer teaching, group discussions, think-pair-share, and so on, that the instructional leader will need to research in order to support and guide educators in this instructional technique. Co-operative teaching is such a powerful and useful strategy within the context of C2005 that the researcher feels it necessary to compare traditional and co-operative learning groups in the following table above. Co-operative learning has also been shown to enhance mastery learning (Davidson and O'Leary 1990: 30-34).

4.7.4.6 Project method

The project method offers excellent opportunities for self-activity and problem-solving. It is used as a real attempt to bring into practice all the modern didactic principles concerning learner interest and the actual functioning in life situations which apply to school subject matter. Generally, a project is seen as a problem taken from real life and studied in detail from all possible angles. In some cases the normal school programme is occasionally interrupted by the undertaking of a project, with groups of learners being moved to environments other than the school, but because of financial and resource constraints, is usually done within the school environment. Skilled educators set the project in such a way that individual learners can be used to collect data for different aspects of the project, and then the co-operative group method is used to finalise data analysis. The project can be displayed or presented to a group of learners. The advantages of a presentation is that a source relates, dramatises and disseminates information to learners. This method makes use of verbal information as well as visual symbols and is able to convey information quickly (Vermeulen 1997: 81; Newby *et al.* 2000: 97).

4.7.4.7 Programmed instruction

The key word of this teaching strategy is 'reinforcement'. It enables the learner to know immediately whether his insight is sufficient or not. It is a scientific

method of individual teaching where the learner works at his own pace, in a controlled learning situation, according to a thoroughly explained and evaluated programme, and where he/she has immediate knowledge of the results of his learning. Each programme consists of a series of frames. Within these frames the question, the sentence (long or short) or a statement is given. The questions are coupled in such a way that they lead the learner from the easy to the complex, and from the known to the unknown. The learner must respond to each question by writing an answer in a blank frame. The answer to the question is given immediately after the learners respond, which serves as positive reinforcement. Elements of mastery learning (see section 2.3.5.2) and drill and practice can be incorporated into this teaching strategy, and it can be used to stretch the brighter learner, as well as provide corrective feedback to remediate errors other learners might make along the way. This type of strategy is especially suited to a computer-based approach (Vermeulen 1997: 81; Newby *et al.* 2000: 96).

4.7.4.8 The provision of resources.

Resource providers make the necessary resources available for quality education. To achieve this end the following must be available:

- Buildings - classrooms, fixtures and fittings, blackboards: Materials appropriate for effective teaching such as technological support, computers, televisions, video recorders, overhead projectors, tables rather than desks.
- Adequate space - flat areas for co-operative learning, on so on. (Smith and Andrews 1989: 11).

It is necessary for the instructional leader to analyse the conditions in the teaching-learning situation that require resource provision. It is also necessary to have a clear understanding of educator and learner needs to be able to provide and allocate usually costly resources, which will assist quality teaching and learning. The demands that C2005 has placed on the school have meant

that the provision of resources has become more necessary than ever before. In addition to the usual supply of textbooks, a variety of resources are needed for educator and learner research. These will include, if the school's financial situation allows it, the provision of a media centre and a computer network with Internet access. Bloom (1984:9) argues that, in most advanced countries in the world, the textbook is almost a universal part of school instruction, and therefore it cannot be discarded or its importance minimised.

4.7.4.8.1 Functioning equipment

In addition to providing resources, the researcher argues that another important task of the instructional leader is to provide a sufficient supply of materials and machines, housed and organised in accessible areas. The maintenance and updating of all equipment is important. All technical equipment (video recorders/televisions, computers and the related hardware and software, typewriters/sewing machines, printing/photocopying machines etc.) needs to be serviced, and usage should be adequately supervised. There is nothing more frustrating or time-consuming than trying to operate a machine at a crucial time and finding it out of order or malfunctioning. To enhance educator effectiveness equipment needs to be in good working order. The instructional leader, as the resource provider, would usually delegate part of this task to office staff or other competent persons, but nevertheless would be ultimately responsible in this regard. He has to build sufficient time into his day to attend to such matters and to see that they are completed satisfactorily. It goes without saying, therefore, that one of the necessary qualities of any instructional leader is that he be a doer. He must have the ability to get the job done and the commitment to do it quickly and efficiently (Drake and Roe 1986: 439; Sunter 1997: 3).

4.7.4.8.2 Time-table management

The instructional leader is usually involved in designing and structuring the school timetable thereby allocating educators to classes for subject teaching.

On the whole these educators are teaching subjects in which they are competent and qualified, but with recent constraints imposed by rationalisation in South Africa, many educators are teaching subjects in which they have little experience or are not suitably qualified. Care must be taken when allocating educators in these areas so that quality education is not compromised. Human resources are vitally important to the school and are the key element in quality instruction. The instructional leader needs to allocate classes to match the expertise of the staff. Within the C2005 environment it is necessary that qualified and trained staff are allocated to Grades 8 and 9 (Vermeulen 2000: 56-57).

4.7.4.8.3 Qualified educators

In the past, it has been the researcher's experience that the Grade 8 and 9 classes usually bear the brunt of (mis) allocation of inexperienced educators. Grades 10, 11 and 12 are usually the first classes assigned to the subject specialist, and thereafter the lower standards benefit as far as possible. It is no longer possible to hide inexperienced and incompetent educators in the system especially since the introduction of the GETC exam that is to be written at the end of 2002.

Once the educator's timetable is fully allocated, a problem arises which must be dealt with sensitively. The instructional leader, in consultation with the respective subject head, needs to provide the resources, advice and support necessary for a surrogate educator to enable him to impart knowledge outside of his usual expertise. The timetable must reflect the needs of the staff and the resources available. In many cases the supply of resources and facilities imposes such constraints on the timetable that they may have to be shared by different classes and educators, at various times of the school day. The researcher has identified the following problem areas in that could arise:

- Use of a computer network.
- Use of science, biology or home economics laboratories.

- Use of a typing, needlework or art classroom.
- Use of the library/media centre.
- Use of an audio-visual facility.
- Use of a large classroom for certain classes.

4.7.4.8.4 Global resources

The instructional leader also needs to ensure that all resources are utilised with the goals of the school in mind. This requires a strong sense of insight in order to visualise the global needs of the school. It might be necessary, in some cases, to exert some coercion for educators to use the resources - especially technological equipment. A lot of resistance is experienced from educators, as they tend to feel threatened by learners who may have access to such equipment at home or elsewhere outside the school, and who may appear to be more knowledgeable than themselves. Many less able, uncreative, non-dedicated or simply older, outdated educators feel overpowered and left behind by this rapidly advancing technology, and choose not to employ it as part of their 'teaching toolbox'.

Drake and Roe (1986: 439-440) maintain that, these days, nobody needs convincing that both the computer and the television are innovations of more than ordinary magnitude. They have changed and are changing the very character of our social and economic life, and the best use of these technologies would require a variety of new staffing patterns. In many cases they would change the educator's main role from that of providing direct instruction to planning, designing, and organising learning experiences. The potential for multiple use of audio, film, video, television and computer is limited only by our creativity and our imagination.

Many established educators are threatened by these technologies and have retreated behind the textbook and traditional instruction. The advent of the Internet in recent times has further complicated the issue, and driven some

educators even further away from the new movement of child-centred learning, with the educator as a facilitator in the learning process.

4.7.4.8.5 Technological resources

Sunter (1997: 5), in a lecture entitled '*How to earn a world class badge*', argues that information technology is the key to success in future education and that school children must be able to use the new technologies effectively to access information. He makes the point that there is so much information available that it is impossible to teach learners relevant facts any more; children must be taught how to learn so that they will be able to decide for themselves what information is relevant to what they are doing. It therefore becomes essential for the instructional leader to gently urge and encourage educators to become innovative and updated in their teaching methods, and to learn to accept information retrieval systems as part and parcel of today's teaching strategies. In a recent project handed to the researcher, all of the sources quoted in the bibliography were web sites on the Internet! It must also be mentioned, however, that a skilful, creative and experienced educator can still use the 'chalk and talk' method very effectively for quality teaching.

Smith and Andrews (1989: 11) summarise this by saying that effective instructional leaders view resource provision in terms of maximising instructional effectiveness and learner achievement. They view resource provision as much more than money or supplies - they view it as the encouragement of human resources which helps the faculty and learners achieve success.

Provision of resources is thus of vital importance to teaching and learning. It is not simply the provision, maintenance and repair of teaching materials - it is an attitude and a commitment made to staff and learners to provide the materials needed to teach and learn - be they pencils or computers.

4.7.4.9 Effective communication

Effective communication is an essential pre-requisite for any instructional leader, since it is essential that educators and learners have a clear understanding of what is required of them. It has been shown that effective communication develops around a sound working relationship between staff through verbal and written messages. Although the instructional leader would not usually chair formal staff meetings, many subject meetings are run by him. At such meetings policies can be outlined, questions answered and support gained through meaningful interaction. It is essential for these meetings to be well organised and controlled, and for written statements of decisions, policy and procedures to be available. In these meetings the availability of resources can be raised, classroom problems discussed and new developments in learning areas and curriculum policy considered (Smith and Andrews 1989: 61-62). The researcher has found that, in the implementation of C2005 at his school, regular, weekly staff meetings have proved to be the key to the success of the OBE programme. C2005 needs consistent hands-on instructional leadership to work effectively. The Malcolm interview (see 5.7.2) concurs with this.

The instructional leader must therefore develop a healthy and trusting relationship with the staff. To do this he must deliver what he promises, be objective about his judgements and fair in all matters. This is achieved through effective communication which must be a two-way affair, that is to say, up and down the ladder. The instructional leader must guard against a one-way only line of communication between the principal and staff. This problem can also be addressed through participatory leadership and whole school management (Marshall 1992: 17; NDE 1998d: 10-13) (see 4.3.2). Effective relationships are achieved through convivial advice to staff and learners after listening and carefully considering issues. The instructional leader can be invaluable in communicating the goals and vision of the school by reinforcing them through constant reminders during conversations with staff and learners. Frequent

communication through slogans, themes and logos can remind everyone that the school is headed in a certain direction. Smith and Andrew (1989: 43) remind us that "... an ongoing conversation about learners' learning and educators' teaching methods focuses on the vision of the school ...".

It is necessary that the instructional leader take cognisance of the issues referred to above. Equipment, time-table management, qualified educators, global resources, technological resources and effective communication are all essential to the success of C2005 implementation. The researcher's experience has shown that instructional leaders need to set aside time to plan carefully and to demonstrate proactive leadership in order to address these issues.

4.7.4.10 Instructional resource

As instructional resource the instructional leader is actively engaged in the improvement of classroom circumstances that will lead to quality learning and teaching. Through on-going quality dialogue with the staff, the instructional leader encourages the use of a variety of instructional materials and teaching strategies. The instructional leader is sought out by educators who have instructional concerns or innovative ideas. Clinical supervision compliments educator evaluation, with emphasis on continuing professional growth and development for everyone on the staff. The instructional leader and staff consider the appraisal or evaluation of staff performance the highest level of cognition, and that it should be cyclical. The most obvious duty of the instructional leader as an instructional resource is to facilitate good teaching (Smith and Andrews 1989: 45-46).

4.7.4.10.1 Personally improved and currently informed

To facilitate good teaching the instructional leader must stay abreast of new developments and strategies for improving instruction. An effective instructional leader will know the latest trends in the (school) curriculum, new approaches to

organisation and the latest trends in instructional media and methodology. Investing time in reading, attending courses and developing new skills is "... a long-term investment ensuring against professional obsolescence ..." (Keefe and Jenkins 1991: vii).

By attending educational courses and continuing his studies the instructional leader demonstrates to the staff his commitment to the promotion of academic excellence in the school. The success of the C2005 programme at the researcher's school is due in large measure to this study. The researcher's academic credibility has also enhanced staff development. It therefore can be said that, by adding to his store of knowledge, the instructional leader enhances and promotes his credibility. The improvement of teaching and learning is a life-long process which requires purposeful personal involvement and interaction with people, and therefore it needs to be both proactive and creative. The researcher's philosophy of instructional leadership is that one should be proactive and make things happen, instead of being merely reactive. Curriculum issues are of vital importance and instructional leadership ensures that a quality programme is provided on an ongoing basis. Glatthorn (1990: 18) maintains that a quality programme provides: "... clear goals, quality curriculum guides for each field of study, a goal-oriented programme of studies ... these outcomes are achieved through long-term planning, shared decision making and ongoing staff development ...".

This is very necessary, especially since the policy documents of the National Department of Education were not user friendly (see 3.3.4; 4.7.4.12.2; 6.3.1) and a lot of work had to be put into translating them into classroom practice. This was supported by many of the respondents in the qualitative study. This responsibility would fall on the shoulders of the instructional leader.

Gibbon (1997:7) predicted that a shift would occur from, what he calls a transformed (traditional curriculum) to an improved (outcomes-based) approach. It is clear from this study that new challenges have to be met and that meeting

these new changes, and the more mundane requirements of instruction, will require a sound and thorough knowledge, careful planning and innovation, as well as energy on the part of the instructional leader.

4.7.4.10.2 An example and a role-model

The instructional leader's task is one which encompasses many issues, and the role must be distinguished from that of the subject head whose role is narrower and more specific, dealing with the didactics of one or at the most two particular subjects. The instructional leader must, of necessity, be an expert in his own subject and have proven excellence in teaching. It is essential that the instructional leader teaches some classes. Just how many will depend on the staff allocation at any particular school and the number of free periods allocated to the instructional leader for general administrative purposes. Currently (2001) in South Africa, staff-learner ratios are set at approximately 1:40 and this means that instructional leaders are teaching more than before. For example, the researcher has taught 40 out of a possible 48 periods (83%) of the school's time-table for the past five years. This relatively heavy teaching load, far from being disadvantageous, sets the tone for the instructional leader to become a practising, hands-on role model for the staff and learners. The instructional leader is perceived as practising what he preaches, that is to say, actively teaching and working at the coal face. The image projected to the staff is a good one and, as mentioned earlier, professional integrity is the foundation on which relationships are built. He is identified as a educator, a practitioner of his art, and this creates an ethos of acceptance which makes him more approachable than might otherwise be the case. Iannacone and Podorf (1984: 116) maintain that " ... a dedication to learning and scholarly behaviour is critical to maintain faculty and student credibility ... ". In other words, he is a role model. All too often today, people making decisions about what happens in classrooms have long since deserted them!

4.7.4.10.3 Capability and availability

Most of the researcher's daily instructional interaction occurs on a very informal basis - in the classroom, just before or after a period, or while walking along the corridor. The principal of the researcher's school has recognised this interaction as vital to the running of the school, and has provided the him with a classroom that is close to the staff room and office block. This means that any contact that needs to be made (and much problem-solving advice essential to the smooth running of the school is done on an ad hoc or spur-of-the moment basis) can be handled quickly before it becomes a major issue. These issues are usually mundane, such as re-setting the school bell to change the times of periods, when timing has become a problem, providing a piece of technological equipment (the store is next door) to a educator who has not quite planned far enough ahead, or simply having the principal pop in to say that he is leaving the school for a while. Quick thinking on one's feet is required but, with experience, the informal nature of these interactions goes a long way towards improving teaching and learning by ensuring a smooth-running, uninterrupted school day. Nothing undermines effective instruction as much as the erosion of teaching time by reactive management of issues relative to the running of the school day. These measures, on the other hand, will all ensure high time-on-task instruction.

Since the instructional leader is constantly engaged in the improvement of classroom equipment and facilities in order to enhance learning, he should be available to the staff on a daily basis and easily contactable if need be, thereby becoming a human resource who provides advice and guidance when required. Class visits and the supervision of educators form an integral part of being an instructional resource and will be discussed later in this chapter. Class visits and follow-up discussions promote better teaching and better learning (Marshall 1992: 4).

Constant feedback is necessary after class visits since this leads to improved instruction and positive reinforcement. Contact can be achieved during informal

lunch and tea breaks or during a scheduled formal meeting. The instructional leader can be sought out by educators who have instructional problems or who wish to discuss new ideas. Two areas in which educators need constant help and guidance are those of computer usage and the teaching of larger classes. Instructional leaders must stay abreast of new developments in materials and techniques for the improvement of instruction. There is a certain responsibility to review educational literature and thereby gain new insight into understanding how children learn. Leaders therefore need to be knowledgeable about teaching as well as competent in the classroom. Detailed knowledge of each subject is not necessary since good teaching techniques cover all subjects. Smith and Andrews (1989: 14) state that: "... when instructional leaders know the basics of learning and instruction, they can help educators improve, regardless of the subject matter ...".

The instructional leader must demonstrate the ability to evaluate and reinforce appropriate and effective instructional strategies. To this end the staff need to be guided and supervised into providing quality instruction.

4.7.4.11 Visible presence

As a visible presence the instructional leader interacts with staff and learners in classrooms, corridors, sports fields and meetings at regular intervals. The idea is to strike up informal conversations with educators and learners and, as a result, the instructional leader's presence is felt throughout the school. The visible instructional leader constantly displays behaviour that reinforces the school's academic vision. After being out and around a school in this way, the instructional leader can immediately communicate, praise and comment and by so doing address issues before they become problems. Smith and Andrews (1989:19) maintain that the visible instructional leader 'strokes' staff and learners for academic success and argue that this is perhaps the most important aspect of creating an effective school. Acknowledging the achievements of others is a regular practice of strong instructional leaders. Being positive,

cheerful and encouraging; making themselves accessible to the staff, and making their presence felt by moving around buildings go a long way to creating a positive, effective academic programme. (Smith and Andrews 1989: 19; Frase and Hetzel 1990: x).

One does not learn how to be a visible presence from studying the research, but rather acquires the skill through common sense. Frase and Hetzel (1990: xi) show that characteristics such as accessibility and visibility are prominent in effective instructional leaders.

4.7.4.11.1 Individual and informal attention

Co-operation with staff is essential to the goals of instructional leadership and this can be achieved if the instructional leader develops a collegial relationship and is visible and available at all times. Contact can be made in the classroom, corridors and staff room or on the playing fields, during tea/lunch breaks, before or after school and even after hours. The opportunity for informal contact between the instructional leader and staff or learners is increased, and can lead to spur-of-the-moment discussions which can prove valuable for gaining information, reinforcing the vision of the school as an ongoing exercise, or merely cementing relationships. Many staff and learners prefer to avoid formal in-the-office discussion and rather seek the open and relaxed atmosphere of informal contact. The instructional leader can achieve this by giving the impression that he is easily approachable, either for advice or purely for general conversation. Through frequent unscheduled contacts there can be much two-way exchange of information or suggestion. It has been discovered that, particularly with learners, much can be achieved during such informal, unscheduled meetings. Walking among, and chatting to learners in this way goes a long way towards creating a trusting and respectful working relationship and inspiring confidence in both staff and learners. The positive climate that can be created may lead to a reduction in the need for classroom visits, which would thereby become completely non-threatening, leading to more effective

educator evaluation and better quality teaching and learning (Marshall 1992: 4-6).

4.7.4.11.2 Classroom involvement

The high visibility of the instructional leader can lead to improved staff motivation because the informal contact should bring about increased awareness of what is going on in the classroom, thereby leading to positive reinforcement. The instructional leader must ensure that this informal walkabout and high visibility is purposeful and productive. Simply being in the classrooms and corridors will not necessarily improve teaching and learning. However, being in the classroom will provide an opportunity to:

- Assess the effectiveness of the educator.
- Diagnose problems.
- Praise good teaching practices.

During this visit the instructional leader can quickly assess the quality use of the resources in the classroom. Equipment, especially that of a technological nature, is usually expensive and needs to be used properly if it is going to provide productive learning (Gorton 1972: 216-217; De Waal 2001: 5-6; Grösser 2001: 40-42).

The instructional leader must have a vision of academic excellence and inspire educators and learners to strive towards similar goals. High visibility will communicate these values and this vision. Values are seen in actions which show that one lives them from day to day. This provides living data which educators and learners need for strength and support. By being visible, an instructional leader can also gain first-hand information on the state of resources and buildings. Increased visibility also means increased accessibility. Frase and Hetzel (1990: 157) sum up these ideas on visibility as an opportunity to model desired behaviour and reinforce people to do things right. It is

leadership that creates opportunity by searching out needs and creating alternatives rather than waiting for problems and hoping for solutions.

In outline then, the instructional leader is one who is seen by the staff as:

- Providing resources and materials to ensure that academic goals can be achieved.
- Having the necessary knowledge and skill in curriculum and instructional matters so that educator interaction leads to improved instruction.
- Having the necessary communication skills in large and small group situations.

4.7.4.12 The supervision of instruction

Supervisory leadership functions at school level, firstly, to emphasise the active and professional implementation of national and provincial policies and procedures and secondly, to ensure that the school's instructional and curriculum policies are being implemented (Glatthorn 1990: 15). Supervisory leadership deals with those activities designed to improve teaching and learning, and is also a behaviour style which interacts with educator behaviour in such a way as to maintain, change and improve the provision of learning activities for learners (Glatthorn 1990: 83-84). A facet of supervision is educator evaluation, or appraisal as it is now called in South Africa. In order to carry out this sensitive role, the instructional leader needs to build up a sound foundation of knowledge which will form the base on which he builds respect and integrity. He can then effectively supervise all of the activities that pertain to instruction in the school. This is especially important in the C2005 context because so much has changed, and educators need constant supervision to provide effective instruction.

Wiles (1967: 117), Webster (1994: 71-80) and Grace (1995: 53-54, 155-156) define the supervision of instruction as the supervision of all the activities

leading to the improvement of instruction; activities related to morale, improving human relations, in-service education and curriculum development. Stones (1984 : 1) maintains that it is an active process on the part of the supervisor; directing and overseeing , focusing on teaching rather than educators. This supervision must be carried out for all staff as an integral part of instructional leadership, especially for the beginner educator who will need a great deal of guidance and counselling during the first year. More experienced educators need feed-back from class visits, as a diagnostic tool, to address areas which need improvement or simply to reinforce their teaching practice. Theron and Bothma (1989: 128) also see the aim of supervision as helping educators to improve instruction. The purpose of supervision is to assist educators to do their job effectively. Helping educators to do their best is the job of any instructional leader and he must use general supervisory techniques that are perceived as a comprehensive set of activities which will help to improve instruction and provide useful feedback about teaching.

Glatthorn (1990: 85) maintains that there are four areas of supervisory leadership that need to be provided. These are listed below and will be briefly discussed in the section which follows:

- Staff development.
- Individual development.
- Informal observations.
- Educator evaluation.

4.7.4.12.1 Staff development

Staff development is dealt with in section 4.7.3. It is however necessary, in the context of supervision, to comment that it is those processes provided for groups of educators to ensure that both organisational and individual needs are being met. It includes in-service training, staff meetings, staff development sessions and so on. The researcher has mentioned in section 4.7.4.9 that

perhaps the single most effective factor in the success of C2005 implementation at his school was the regular weekly staff meeting, where much of the supervisory procedures were put in place. The level of staff development as they worked together to design and produce learning programmes, and the way in which integration between the learning areas was handled, has been particularly rewarding for the researcher (De Waal 2001: 5-6; Grösser 2001: 40-42).

4.7.4.12.2 Individual development

Individual development provides processes to help and encourage individual educators to improve their professionalism and instructional strategies. In the case of the beginner educator, the supervision is clinical and intensive; in the case of more experienced educators it is usually in the form of support and encouragement. C2005 has increased the demand for individual development programmes. The staff development mentioned in the previous section deals with macro-planning in which the SMT would be involved, but micro-planning would involve individual educators planning resource tasks and lesson plans (Vermeulen 2000: 69). It falls to the instructional leader to provide this development because, firstly, the policy documents are so vague about content and, secondly, little help is available from provincial departments of education.

4.7.4.12.3 Informal observations

Informal observations are casual encounters that serve to reinforce collegiality or to give advice. In sections 4.7.3 and 6.3.2 it is noted that walking around, being visible and impromptu visits to classes, sporting and cultural activities also serves a variety of purposes such as reinforcing effective teaching, taking note of potential problems and monitoring curriculum implementation.

4.7.4.12.4 Educator appraisal

The processes of educator appraisal are provided to assess the quality and effectiveness of a educator's performance. Bassett, Crane and Walker (1967: 64) maintain that: "... the prime purpose of staff evaluation is the improvement of the education situation ... it implies the setting up of standards or criteria ...". Evaluation of staff is, and will always be, a sensitive issue and is one of the more difficult but rewarding tasks of the instructional leader

All staff at a school should be evaluated. The programme will vary from school to school, but whichever system is used, better instruction will be achieved in the end. Evaluation is a sensitive area of staff development and in South Africa during 1993 there was a shift towards a collaborative approach, each member of staff being evaluated by at least two members of the SMT - one of these generally being the instructional leader (FSDE 1993: 2-10). Supervision of staff should not be perceived as threatening or sinister; rather it must be open and transparent. The term 'supervision' is a better one to use than 'evaluation' and Findlay (in Theron and Bothma 1989: 128) makes the distinction between the two as follows: "... evaluation implies that the educator and evaluator are on opposite sides ... supervision must be co-operative effort ...". Clinical supervision is 'supervision up close' of the educator in action and Cooper (1991: 171) proposes a clinical supervision model in which the educator and the instructional leader work together as colleagues. The instructional leader will adopt the less threatening behaviour of encouraging and collaborating rather than making judgements about the educator's effectiveness. Supervision of this nature takes time - time to visit the classroom and time required for feedback. Taking time to be with educators in their classrooms means that you care, and it is time invested in building relationships. During this time with the individual educator, the instructional leader must demonstrate his knowledge of good instruction and his skill in human relations and must realise that people are valuable resources. Job enrichment research by Hackman and Oldham, (in Cooper 1991: 172-173) has shown that meaningfulness (using talents),

responsibility (degree of collaboration in determining instructional practices) and knowledge of results (direct and clear feedback) positively affect educator satisfaction. All three of these factors are directly related to the role of the instructional leader. Increasing job satisfaction improves educator productivity and performance, leading to better instruction. Sergiovanni and Carver (1980: 118) recognise high-order needs as achievement, recognition, responsibility and the work itself. These factors can help instructional leaders to operationalise the concept of the need for fulfilment in educators through providing proper motivation opportunities and allowing educators to fulfil basic growth needs.

In addition to the supervision and guidance of individual educators, the instructional leader must, of necessity, supervise the overall activities of the subject heads within the school. Although he cannot be *au fait* with the content matter of all learning areas, there are nevertheless universal concepts that will apply, and it is his duty to see that policy is instructionally sound and acceptable to staff and learners. The researcher has identified the following issues that fall into this category of supervision:

- Scheme of work for the term and the year.
- Educator and learner portfolios.
- Policy for continuous assessment - in other words, allocation of marks and scheduling of tests, setting deadlines and composition of projects or portfolios.
- Examination procedures.
- Use of resource material.
- Overall control of the subject files which contain the subject policy.
- Co-ordination of the policy documents and their dissemination to staff.

Another area of instructional leadership that requires the full attention of the instructional leader is the guidance of beginner educators (see 4.7.3; 6.3.2). Any beginner educator is given full and immediate responsibilities, in the

classroom and extra-murally. Even a sound tertiary training cannot prevent the new educator from making mistakes and it is the duty of the deputy principal, as instructional leader to guide the new educator.

The qualitative study plus the experience of the researcher have shown that the elements of the literature study as outlined in 4.7 can be synthesised into the following areas: curriculum, curriculum change, teacher development and training, assessment, teaching strategies, integration, mixed-ability teaching, developing thinking skills, problem-solving and resources. These need to be addressed by the instructional leader in an aggressive, proactive way to ensure successful implementation of C2005 and OBE. These issues are dealt with in more detail in the qualitative study as outlined in chapter 5.

4.8 Summary

Leadership can be considered to have many styles but an overriding factor of all styles seems to be that people are influenced most by leaders who have expert power. In the case of a leader in the field of education, this power would be conferred on a person who has expert knowledge and is respected for this, as well as for his competence as a educator. The instructional leader in a school should certainly have expert knowledge and use it to the benefit of staff and learners alike to enhance the quality of teaching and learning.

Keefe and Jenkins (1991: vii) maintain that "... knowledge forms the base on which the instructional leader builds integrity and respect. An effective instructional leader knows the trends in the school curriculum, the new approaches to organising schools, and the state of the art in instructional media and methodology ...". The researcher can support this point of view. Teaching and learning are dynamic; circumstances are always changing and constant advice is required to maintain a workplace with high time-on-task. The nature of education and instruction today is such that educators are in constant need of help or advice and have many queries relating to methodology, discipline,

resources and teaching materials. They need someone with the necessary knowledge and time to turn to for help. Availability is almost as important as knowledge since many issues relating to instruction, especially those relating to the supply and repair of teaching materials, need to be attended to promptly. Any truly committed instructional leader must thus spend a portion of his time in self-education. Devoting time to developing new skills is a long-term investment that will delay, if not prevent, professional obsolescence. The researcher has found that educators and learners will more often than not seek advice from someone who knows what he is talking about, and tends to make things happen rather than let them happen.

This chapter has examined the concept of leadership, highlighting the complexities of running a school, and has argued that the principal, while taking responsibility, is not always able to carry out the task of the instructional leader. Modern thinking involves the use of the SMT in a participatory and whole school process in school leadership (NDE 1998d: 10-13). The role of the principal was discussed in order to give a holistic picture of school organisation and the focus was then placed on the role of the instructional leader and the responsibilities that need to be undertaken to ensure quality teaching and learning, with an emphasis on those issues with a outcomes-based approach in regard to C2005.

The role of the instructional leader in a C2005 environment is enormous. Many issues need to be taken into account, most of them being related to staff development, training and motivation. The researcher has found that staff are generally reluctant to embrace change, especially when that change impacts on teaching styles and classroom management. The changes required by C2005 need aggressive instructional leadership and thorough preparation, and a total commitment on the part of the instructional leader is required.

The next chapter discusses the differences between quantitative and qualitative research methodology, motivates why the qualitative method was chosen for

this study, describes how the interviews were conducted and concludes with a summary of the patterns and themes that emerged from the qualitative study.

Chapter 5

A qualitative study of Instructional Leadership regarding C2005

5.1 Introduction

Chapters 2, 3, 4 and 5 provide the necessary background material for the actual research programme used in this study. The literature study researched OBE, its South African version, C2005, and the role of the instructional leader. The role of the instructional leader is a highly complex task and this is further complicated by the introduction of C2005. The new curriculum requires a completely different approach to instructional leadership and places new demands on the leadership and management of the school curriculum. In the light of this, the researcher decided to conduct a qualitative study of instructional leadership regarding C2005. The reasons for adopting a qualitative approach are set out in section 1.5.2, the main reason being that a qualitative approach is particularly effective when not too much is known about the topic being researched (Ertmer 1997: 163). Before discussing the method used in this study, it is important to clarify what is meant by both quantitative and qualitative research and to explain the differences between them.

5.2 The differences between quantitative and qualitative research

Quantitative and qualitative methods are two different sets of research techniques, each with their own potential advantages and disadvantages.

Quantitative techniques involve experiments, research surveys, quasi experiments, structured observation, codifying phenomena, and the use of

questionnaires, social surveys, or structured interviews. Such techniques allow social scientists to carry out large-scale comparative analyses, testing theories, establishing facts, and to make predictions. The relationship with the subject in question is circumscribed, short-term and distant. The sample used in quantitative methods is large, stratified, and precise. There are normally control groups and the participants are selected in random order. It has been argued that quantitative techniques have dominated social science research since first being used in conjunction with a logical positivist philosophy (Griffen 1985: 100).

Qualitative techniques involve more open-ended, free-response questions based on informal, loosely-structured interviews, observations or diaries. The relationship with the participants includes empathy; the emphasis is on trust, intense contact is made and the participants are usually seen as co-researchers helping to close gaps of knowledge. This type of research is fairly time consuming, involves a small number of participants and is often used with subjective experience and social meaning (Griffen 1985: 100). A qualitative researcher goes about collecting and analysing data in a completely different way to a quantitative researcher. Data is collected in the form of words with rich description and gives a feel for social settings (Neuman 1994: 317).

The table below summarises the differences between quantitative and qualitative research:

Table 5.1 Differences between Qualitative and Quantitative Research

Quantitative	Qualitative
Test hypothesis that the researcher begins with.	Capture and discover meaning once the researcher becomes immersed in the data.
Concepts are in the form of distinct variables.	Concepts are in the form of themes, motifs, generalisations, taxonomies.
Measures are systematically created before data is collected, and are standardised.	Measures are created in an ad hoc manner and are often specific to the individual setting or researcher.

Data in the form of numbers from precise measurement.	Data are often in the form of words from documents, observations, transcripts.
Theory is largely causal and is deductive.	Theory can be causal or non-causal and is often inductive.
Procedures are standard, and replication is assumed.	Research procedures are particular, and replication is very rare.
Analysis proceeds by using statistics, tables, or charts and discussing how this data relates to hypothesis.	Analysis proceeds by extracting themes or generalisations from evidence and organising data to present a coherent, consistent picture.

(Neuman 1994: 316)

The next section will describe in more detail various aspects of qualitative research and motivate why this method was chosen for the study.

5.2.1 An overview of qualitative research

The qualitative research method was originally developed by anthropologists and sociologists. The origin lies in an epistemological reaction to the positivistic scientific or quantitative method. A researcher using this method assumes that sociological concepts can be conceptualised as variables and that these can be reduced to numbers. A post-positivistic or qualitative researcher focuses on subjective meanings and captures data in the form of words through intensive study of cases, and subjecting this data to analytic induction (Neuman 1994: 318; Gall *et al.* 1996: 28).

The conflict between the two paradigms of positivism and anti-positivism is a long one. Positivism, as championed by Auguste Comte (1798 - 1857) and John Stuart Mill (1806 - 1873), emphasises empirical, quantifiable observations in the form of numbers by means of which specific relationships can be interpreted ('erklären'). Post-positivism strives to understand the motives of behaviour

through empathy ('verstehen'), and uses holistic and interpretative methods (Husén 1988: 17).

The move away from positivism, according to Husén (1988: 18), is attributed to the following three strands of the humanistic paradigm:

- Firstly the view of German universities with philosophers such as Wilhelm Dilthey (1833 - 1911), who distinguished between the 'erklären' and 'verstehen' principles, and who maintained that the humanities had their own logic of research; that of understanding.
- Secondly, the view of phenomenological philosophy. It emphasised the importance of taking a widened perspective and of trying to get "to the roots" of human activity. The phenomenological, and later the hermeneutic approach, is holistic and tries, by means of empathy ('einführung'), to understand the motives behind human reaction.
- Thirdly, the critical philosophy of the Frankfurt school, with persons such as Adorno, Hockheimer and Habermas developing elements of neo-Marxism.

In the late 1960s and early 1970s critical, dialectical, hermeneutical and neo-Marxism paradigms were advanced as alternatives for the neo-positivist paradigm of quantification. This led to educational researchers seeking alternative methods such as " ... in-depth, open-ended interviewing and personal observation ... the alternative paradigm relies on quantitative data, holistic analysis and detailed description, derived from close contact with the targets of study ..." (Patton 1988: 17).

According to Neuman (1994: 319), researchers follow a path when conducting research. The path for quantitative researchers is more linear than the one followed by qualitative researchers. Neuman (1994: 319) maintains " ... qualitative research is more cyclical ... it makes successive passes through steps ... it is more of a spiral, moving upward but not directly ... with each cycle or repetition a researcher collects new data and gains new insights ... ".

The connection with phenomenological philosophy is clear when one understands that all knowledge is rooted in our immediate experience of the world. The researcher must put aside his preconceived notions and observe the phenomenon as it is (Marton 1988: 193). As a result, the influence is of such significance that the qualitative approach is primarily referred to in literature as the phenomenological approach.

The ideal of qualitative research is to observe participants in their natural surroundings to avoid control or manipulation by the researcher. The researcher then strives to capture as accurately as possible the perspective of the participants by observing or interviewing them in an informal setting. Patton (1988: 130) maintains that " ... with empathy and sympathetic introspection derived from personal encounters, the observer can gain insight into the varied meanings of human behaviour ...". The aim is to identify patterns in human behaviour, therefore qualitative research focuses on a naturalistic, interpretative approach to its subject matter, attempting to make sense of phenomena in terms of the meanings people bring to them (Gall *et al.* 1996: 29).

The qualitative method includes direct observation, participative observation and open, unstructured interviews. Qualitative data is collected in the form of words or pictures, not numbers. Types of data included transcriptions of interviews, field notes, audio-tapes, video tapes, diaries, personal commentaries and any other method that represents the actual words or actions of people. The use of unstructured interviews, as a data collection method, is the ethnographic method because the data is potentially verifiable and obtained from the environment (Goetz and LeCompte 1984: 3,107).

Qualitative research is also characterised by the inductive processes of discovering, verifying or identifying casual relationships that derive from an *a priori* theoretical scheme (Gall *et al.* 1996: 29).

5.2.2 Key features of qualitative research

When exercising a choice with regard to method, researchers have to decide between quantitative and qualitative methods. The choice is influenced by many factors. In the case of this study the choice was determined by the following, which serves to summarise the characteristics of the qualitative approach:

- Qualitative research is conducted through an intense and/or prolonged contact with a 'field' or life situation. These situations are typically 'banal' or normal ones, reflective of the everyday life of individuals, groups, societies and organisations.
- The researcher's role is to gain a 'holistic' (systematic, encompassing, integrated) overview of the context under study: its logic, its arrangements, its explicit and implicit rules.
- The researcher attempts to capture data on the perceptions of local actors 'from the inside', through a process of deep attentiveness, of empathetic understanding (*verstehen*), and of suspending or 'bracketing' perceptions about the topic under discussion.
- Reading through these materials, the researcher may isolate certain themes and expressions, that can be reviewed with informants, but should be maintained in their forms throughout the study.
- The main task is to explicate the ways people in particular settings come to understand, account for, take action, and otherwise manage their day-to-day situations.
- Many interpretations of this material are possible, but some are more compelling for theoretical reasons, or on grounds of internal consistency.
- Relatively little standardised instrumentation is used at the outset. The researcher is essentially the main 'measurement device' in the study.
- Most analysis is done with words. The words can be assembled, sub-clustered, broken into semiotic (the analysis of communicative signs) segments. They can be organised to permit the researcher to contrast,

compare, analyse and bestow patterns on them (Miles and Huberman 1994: 6-7).

5.2.2.1 Objectivity

Empirical researchers using quantitative methods, influenced by positivism, seldom have to defend the objectivity, reliability and validity of their research since they are able to regulate data; they dissociate themselves from prejudice and maintain impartiality and neutrality. Qualitative research is, however, open, flexible and not strictly regimented and this calls into question the objectivity, reliability and validity of the research (Niemann, Niemann, Brazelle, Van Staden, Heyns and De Wet 2000: 283). The next section will address this issue in the context of qualitative research methodology (see 5.5).

Objectivity refers to the regimented, impartial and unbiased, value-free, or neutral way in which the research is conducted. Webster, in Niemann *et al.* (2000: 284), maintains that the researcher is not a *'tabula rasa'*, but a person with scientific ideas, and a personal theoretical frame of reference, in terms of which the gathering, interpretation and reporting of data will take place. This implies that the researcher should apply the principal of 'role-taking' by imagining himself/herself in the position of another to enable him/her to understand, anticipate and interpret the behaviour of others. This allows the researcher to achieve a picture by letting the object speak for itself (Niemann *et al.* 2000: 284).

5.2.2.2 Reliability

Reliability relates to consistency, stability and dependability of results and the core meaning is the absence of random errors (Du Toit *et al.* 2000: 35). In an attempt to eliminate random errors, qualitative researchers apply various measures such as internal and external reliability.

Internal reliability refers to reliability during the research, and is achieved by:

- Triangulation, including the use of more than one method of data collection; the use of one or more theoretical perspective to interpret data; the use of more than one researcher or observer in the investigation and the use of two or more kinds of data sources (such as interviews or literature).
- Cross-examination: a method used to determine whether casual misinterpretations infiltrated the findings of the research.
- Member checks: the method by which contradictions in findings are referred back to the persons studied for an explanation.
- Consensus: a way in which consensus regarding the findings is reached through open discussion between the research participants.
- Auditing: The presentation of all information regarding the research as well as data, surveys and notes so that the findings can be verified by independent persons.
- Mechanisation: the use of audio-tapes and video recordings to store information, and computers for the processing of data (Niemann *et al.* 2000: 28).

External reliability refers to the verification of the findings of the research when the same research is conducted by independent researchers under the same circumstances and using the same participants (Goetz and LeCompte 1984: 210; Miles and Huberman 1994: 279; Niemann *et al.* 2000: 285). Gall *et al.* (1996: 25) and Niemann *et al.* (2000: 286) recommend the following to increase external reliability:

- Make a 'think' verbal description of what is observed. This refers to the status and role of the research subjects and the phenomenon under investigation.
- An exposition of the theoretical starting points and arguments underlying the various choices made in the research.

5.2.2.3 Validity

Traditionally, validity has been defined as the extent to which an instrument measures what it is supposed to measure and refers to the accuracy (Goetz and

LeCompte 1984: 210). Goetz and LeCompte (1984: 221) indicate that researchers determine the degree of validity by asking the following questions:

- Are the researchers really measuring or observing what they think they are?
- To what degree have the findings also been tested or refined by other research?

As in the case of reliability, it is essential to strive towards the elimination of systematic errors. The following measures, *inter alia*, can increase the internal and external validity of qualitative data:

Internal validity (validity within the research data), content and concept validity could be ensured by:

- preparing a register of data, notes, relevant actions or events, theoretical and methodological memoranda and categories of data established, to be used during data analysis.
- establishing member checks, peer de-briefing and audit trails to make corrections to categories and concepts formed.
- guarding against bias.

External validity (validity of the results regarding the extended object of the study) relates to the verification of research findings if the same research was carried out by independent researchers under the same conditions using the same participants. As external validity relates to the validity of the research results, the researcher should:

- give an accurate description of the research process, reasons for the choice of methods, the circumstances under which, and context in which, the research was conducted.
- provide a 'thick description' of the research situation and context so that others can ascertain whether and to what extent the research results are valid or can be useful in their own situation or context (Goetz and LeCompte 1984: 222-232).

The above analysis of qualitative approaches to research indicates that this method focuses on understanding the world in which one lives, and interpreting it from the participants frame of reference. The object of study is thus defined as it is actually experienced and observed by the participants themselves.

5.3 Grounded theory - an approach to qualitative research

Qualitative research aims at the development of theories (grounded theory) and understanding. The qualitative researcher begins with a research question and little else. Theory develops during the data collection process and this more inductive method means that theory is from data, or is grounded in the data. Moreover, conceptualisation and operationalisation occur at the same time as data collection and preliminary data analysis. Grounded theory makes the qualitative research flexible and lets the data and the theory interact. This allows researchers to change the direction or focus of a research project. A qualitative researcher builds theory by making comparisons and looks for similarities and differences (Neuman 1994: 322; Ertmer 1997: 163).

Carey, in Neuman (1994: 164), makes the important point that this method is particularly useful when 'gaps of knowledge' exist and not much is known about the phenomenon under study. As mentioned in sect 1.5.2 this is the prime reason for choosing the qualitative method for this study on instructional leadership regarding C2005. The new curriculum was implemented into secondary school in January 2001 and the new methods and their complexities were a relatively unknown factor to instructional leaders.

5.4 Methods of data collection

There are many different methods of collecting data, using a qualitative approach. A description of these is beyond the scope of this study and only a basic overview will be given. The interview will be discussed in more detail as this was the

method used by the researcher in this study. The methods of data collection can be divided into non-interactive methods and interactive methods.

Non-interactive methods include non-participant observation where researchers merely watch what is happening and record events on the spot. This can be collected by means of hidden cameras, tape recordings or one way mirrors (Goetz and LeCompte 1984: 142). Another method of non-interactive data collection is artefact collection. This constitutes data indicating people's sensations, experiences and knowledge that are the manifestations of the beliefs and behaviours that constitute a culture. Data is collected by studying archive records and archaeological objects (Goetz and LeCompte 1984: 153).

Interactive methods include participant observation and interviews. These strategies depend in some way on questioning participants and eliciting data from them, and they are thus creative methods. A researcher using these techniques is cautioned to bear in mind the issues relating to objectivity, reliability and validity mentioned in the previous section of this chapter. Participant observation requires the researcher to take part in the daily lives of the participants, and to reconstruct their feelings and actions as quickly as possible by making field notes (Goetz and LeCompte 1984: 109).

5.4.1 Interviews

The qualitative interview can take many forms. Structured interviews can be used, but these have been criticised as being a data collection device involving situations where the interviewer merely poses questions and records answers in a set pattern (Burgess 1984: 101). It would appear that the unstructured interview is a more reliable and valid way of obtaining data (Burgess 1984: 101 - 102). This informal, unstructured approach allows flexibility and gives informants an opportunity to develop their answers outside a structured format. The researcher has a loose schedule of categories based on a literature study, and these are used to guide the interview. According to Burgess (1984: 106), the unstructured

interview is rarely conducted in isolation; it is often part of a broader programme of research and draws on the knowledge that a researcher has of a social situation. There is usually no definite order to the questions, the researcher allows spontaneity, and takes the conversation in meaningful directions relevant to the research topic (Burgess 1984: 107).

Smaling, (in Neuman 1994: 166) is an advocate of the hermeneutic approach in the context of the unstructured interview. This means that the responses from an informant are interpreted and re-interpreted against a holistic background of the research project. An important aspect of this understanding and interpreting approach is that the informant becomes empowered to assume the role of a co-researcher (May 1993: 138). According to Guba and Lincoln (1998: 96-97), this interview approach follows the pattern of the hermeneutic circle, where the responses of interview 1 are used to construct interview 2, and that information is used to guide the following interview, and so on. This process is repeated until theoretical saturation is obtained (see 5.4.2) (Miles and Huberman 1994: 9). Miles and Huberman (1994: 65) maintain the following: "... the ultimate power of field research lies in the researcher's emerging map of what is happening and why ... so any method that will force more differentiation and integration of that map, while remaining flexible, is a good idea ... coding through iterative cycles of induction and deduction to power the analysis ...".

Because the method of conducting the interview is of utmost importance in data collection and data analysis, the interview must be carried out in an effective manner. The following serves as a guideline for conducting an unstructured interview:

- The interview must start with a short explanation of the research topic; how the interview is going to be conducted, and, if necessary, an assurance of anonymity on the part of the respondent.
- The researcher must try to establish a good relationship with the respondent.
- Questions must be posed in clear and unambiguous language.
- Leading questions must be avoided.

- Singular questions should be used, that is to say, questions involving only a single idea.
- Difficult or controversial questions should be asked in the middle of an interview, when rapport has been established and the respondent is more relaxed, and perhaps more interested.
- The researcher should not speak more than the respondent.
- The researcher should make notes of other issues such as the respondent's reactions and so forth.
- The researcher should ensure that he/she has the same frame of reference as the respondent and uses terms in the same context.
- The interview must be recorded on an audio-tape.

(Burgess 1984: 107, Goetz and LeCompte 1984: 127-129; May 1993: 97-98)

5.4.2 Selection of participants

The selection of participants is very important for the effectiveness of the research. The selection process is goal-directed and is not randomly done. Researchers select a number of participants from the population who, in their opinion, will give the best information about the research topic. This will increase external reliability of the research. Burgess (1984: 72) calls these participants *key informants*, since, in the researcher's judgement, they have knowledge about specialised interests and concerns in a social setting which may compliment the researcher's observation.

Goetz and LeCompte (1984: 118) maintain that key informants are individuals who possess special knowledge, status or communicative skills, and who are willing to share the knowledge and skill with the researcher. The sample size in qualitative studies is usually characteristically small; the purpose in selecting the participants is to develop a deeper understanding of the phenomenon being studied; Gall *et al.* (1996: 217) call this type of selection purposeful sampling.

The ideal number of participants is therefore difficult to predict; the researcher continues until theoretical saturation occurs (Goetz and LeCompte 1984: 176). Theoretical saturation means that no new supportive or negative information is obtained. When this point is reached, no more interviews are conducted and this represents the final number of participants. To strive for theoretical saturation increases the reliability and validity of the research.

5.4.3 Data analysis

The analysis of data collected from an unstructured interview (as used in this study) is a complicated procedure. According to Neuman (1994: 404) there is no one recommended method and it is up to the researcher to choose from several options as to the most suitable method. For Miles and Huberman (1994: 7) the main task of the research is " ... to explicate the ways people in particular settings come to understand their day to day situation ... most analysis is done with words ... (which) can be assembled, substructured ... they can be organised to permit the researcher to contrast, compare, analyse and bestow patterns on them ...".

Given the diverse approaches to the analysis of qualitative data, Miles and Huberman (1994: 9) isolated recurring features in qualitative data analysis and offer the following analytic practices that may be used across different qualitative research types:

- Affixing codes to a set of field notes from observations and interviews.
- Noting reflections or other remarks in the margins.
- Sorting and sifting through these materials to identify similar phrases, themes, distinct differences between subgroups and common sequences.
- Isolating these patterns and processes, commonalities and differences, and taking them out to the field in the next wave of data collection.
- Gradually elaborating a small set of generalisations that cover the consistencies discerned in the data base.
- Confronting these generalisations with a formalised body of knowledge in the form of constructs or theories.

The first step (data reduction) in data analysis would be to collect the data, (from the unstructured interview as used in this study) on an audio-tape. The recording is played back, transcribed, and several themes identified and coded. To Miles and Huberman (1994: 65) " ... codes are efficient data-labelling and data-retrieval devices ... they empower and speed up analysis ...". Miles and Huberman call this process 'data reduction' and in the process selecting, focusing, simplifying, abstracting and transforming the data takes place. Data reduction occurs continuously throughout the research; even before the data is collected, anticipatory data reduction is occurring as the researcher decides which conceptual framework, which research questions and which data collection approaches to choose. As data collection proceeds, further episodes of data reduction occur (coding, teasing out themes, finding patterns). The data reduction/transforming process continues after fieldwork until the final report is completed (Miles and Huberman 1994: 11).

The second step (data display) is to work through the topics or the transcripts a second time, and to refine the initial step by identifying additional themes and adding additional codes. During this step relationships between themes are collated. The data are now organised and patterns are identified. Miles and Huberman (1994: 211-213) suggest the use of a matrix table with participants names on the upper vertical side and the keywords on the horizontal side; the codes are then placed in the cells and the data organised. In this way the data can be evaluated and relationships easily established.

The third step involves conclusion drawing and verification. From the start of data collection, the researcher is beginning to decide what things mean. Competent researchers will keep an open mind during data collection, but the conclusions are still there, vague at first, and then increasingly explicit and grounded. Final conclusions may not appear until data collection is over, depending on the amount of data collected, the coding, storage and retrieval methods, and the competency of the researcher. However, they have often been prefigured from the beginning when even a researcher has claimed to have been proceeding

inductively (Miles and Huberman 1994: 11). Verification involves the testing of the meanings emerging from the data for plausibility, their sturdiness, their confirmability; that is, their validity.

Miles and Huberman (1994: 245-262) suggest 13 specific tactics for drawing meaning from a particular configuration of data in a display. They are arranged roughly from the descriptive to the explanatory, and from the concrete to the more conceptual and abstract.

- Noting patterns and themes.
- Seeing plausibility.
- Clustering.
- Making metaphors (what goes with what).
- Counting (what's there).
- Making contrasts/comparisons (sharpening understanding).
- Partition variables (differentiate).
- Subsume particulars to the general (seeing things and their relationship more accurately).
- Factoring.
- Noting relations between variables.
- Finding intervening variables.
- Build a logical chain of evidence.
- Making conceptual/theoretical coherence.

5.5 The qualitative study of instructional leadership regarding Curriculum 2005

For the investigation of instructional leadership regarding C2005 the researcher decided to use the unstructured interview as the method of data collection. This method was decided upon as being the most effective method in order to collect reliable and valid data (see 5.5.4.1; 5.5.4.2). From the literature study the researcher had identified a number of characteristics of instructional leadership regarding C2005, and these were used as a rough schedule of categories for the

interviews (see Appendix). There was no fixed pattern for the interviews and each began with an introduction to the research topic, followed by explanation of how the interview would proceed. The participants were assured that there were no wrong or right answers and that any information they gave regarding instructional leadership and C2005 would be valuable. The researcher explained to the participants that they were considered to be co-researchers, since they possessed the expertise necessary to help bridge the gaps of knowledge that exist in this area.

From the outset it was attempted to foster a good relationship with the participants. Each was contacted telephonically and by e-mail, an explanation was given as to why they had been selected, the research topic was explained and the manner in which the interview would be conducted (by audio-tape) was stated. Each of those respondents approached is a highly qualified and experienced academic in their own right, and they were more than willing to share their knowledge and information with the researcher in an attempt to add to the body of knowledge on instructional leadership regarding C2005. From the outset it was also explained that any sensitive information would be treated confidentially. The participants were all asked whether their names could be used, and all agreed to this.

The data collection phase of the research was conducted by asking the question:

“How do you see the role of the Instructional Leader at (secondary) school level with regard to C2005”?

If the participants were unsure of the full meaning of the question, an explanation was offered to stimulate reaction. The categories that appear in the schedule in the appendix were dealt with in no specific order and, in reality, most of the topics came up spontaneously during the interviews. No leading questions were asked and explanations were sought when there was a lack of clarity in their answers. OBE and C2005 have a unique language of their own and this last step was

necessary to ensure unanimity of terms and principles in order to facilitate coding of responses during the data analysis.

The interviews were transcribed verbatim after each interview and the data was reduced and analysed (see 5.5.4). To this end the hermeneutic principles outlined in section 5.4.1 were applied. Following each interview, when the data had been processed and organised, where it was seen as necessary, it was incorporated into the next interview to add depth and perspective.

5.5.1 Selection of participants

The participants in this study were selected for their knowledge of instructional leadership and curriculum study, as they apply to outcomes-based education and its application in the South African context, as C2005. These criteria limited the choice of participants considerably. Instructional leaders in schools were eliminated due to the newness of the programme and their uncertainty as to how it should be implemented. After reading the relative literature, attending conferences and studying the process, the researcher chose participants who were leaders in the OBE/C2005 debate, had published papers and who had expressed opinions on how C2005 should be implemented and managed at schools.

Because the researcher intended to continue interviewing until theoretical saturation had taken place, the number of participants to be used was not known at the start of the research. The interviews started with, perhaps, the most prominent authority on C2005, and then proceeded down the list until saturation was obtained. With this forethought in mind, 5 university education staff were selected together with two provincial curriculum developers. Apart from the first interview with Professor Linda Chisholm, the interviews were conducted in no specific order - the availability of the candidate dictated the timing of each appointment. The audio tapes of each interview were transcribed and coded immediately and it was easy to determine when theoretical saturation had been

reached. After 6 interviews had been conducted, no new information or negative evidence was obtained, and the interview schedule was terminated.

5.5.2 The objectivity of the researcher

As explained in section 5.2.2.1 objectivity in qualitative research is difficult to obtain. The status and role of the researcher plays a significant part in the collection and analysis of data and it is therefore necessary to briefly describe these aspects of his position. The researcher of this study has been a teacher of Biology for 33 years and is currently a deputy principal at Eunice Secondary school in Bloemfontein, South Africa. In addition to those duties normally assigned to the deputy principal he is responsible for the instructional leadership and management (specifically of the implementation of the Curriculum 2005 programme in the GET phase) of the school. He is also employed on a part-time basis as a lecturer at the University of the Free State, in the Department of Curriculum Studies, Biology Didactics. Other projects in which the researcher is involved include outreach teaching of Biology to learners in disadvantaged areas, and in-service training in assessment techniques to educators in disadvantaged communities, through a project sponsored by the Flemish Government Department of Education. The researcher does not view himself as an authority in OBE/C2005, or instructional leadership, and used the participants in the study as co-researchers to obtain reliable information. However, the researcher's experience as an instructional leader and his grounded academic knowledge of OBE and C2005 does add objectivity to the study. The data obtained from the research study was relatively new since C2005 has only been in operation in the GET band for two years. This data was analysed against the researcher's background knowledge and experience and follows the role-taking stance (section 5.2.2.1) and 'verstehen' (section 5.2.1; 5.2.2).

In terms of objectivity it must also be noted that the participants are experts in their respective fields. 5 of the participants hold Doctor's degrees, 3 of whom are Professors of Education. All have published articles in international journals. The

two remaining participants have each had many years of curriculum planning at provincial level.

5.5.3 The use of grounded theory

This study relies to a certain extent on the grounded theory method which in essence means that:

- No hypothesis that must be proven correct or incorrect is proposed.
- The theory of instructional leadership regarding C2005 essentially originated from the data and was arrived at using an inductive method.
- The data that was arrived at was supported by the theory that the researcher had gleaned from his experience and studies. The theory referred to here is that of instructional leadership regarding C2005. It must be noted that little, if any, research has been done on the leadership and management of C2005.
- The last point indicates that the data obtained from this research project could be used to fill the gaps of knowledge that exist in this area to a certain extent.

Against this background it will be seen that the methods used in this research are in line with those of the grounded theory method.

5.5.4 Data analysis

The data collected during this research was analysed according to the methods outlined. The researcher made use of an audiotape recorder to record the interviews and a wordprocessing programme to facilitate data storage, retrieval and manipulation. The themes and sub-themes identified from the data were used as main headings in table form on the computer, and data pertaining to each theme was cut and pasted from the files of the verbatim transcripts. This method is also advocated by Neuman (Neuman 1994: 42) and Niemann (Niemann *et al.* 2000: 28). In this way a matrix table was built up similar to the one explained in section 5.4.3. Any notes taken during the interviews were referred to at this time.

These steps were followed after each interview and the resulting matrix table showed what themes pertaining to instructional leadership regarding C2005 emerged. It was also therefore possible to determine when theoretical saturation had occurred. When all the interviews had been completed and the data collated, reduced and analysed, the report was written up and the data tested for reliability and validity.

5.5.4.1 Reliability

To achieve reliability of the data and the findings of the report the following precautions were observed:

- The principle of triangulation was applied. Two kinds of data sources were used; a literature study and a qualitative study using unstructured interviews.
- Cross-examination (5.2.2.2) was used after the data was collected to assess whether the findings of this research corresponded with the general role of the instructional leader.
- Member checks (5.2.2.2) were done with the participants to clear up vagueness in responses.
- All data - recordings, notes and computer records were kept by the researcher for audit purposes.
- The research report contains a full description of the following:
 - ⇒ the status, role and objectivity of the researcher (see 5.2.2; 5.2.2.1)
 - ⇒ relevant information and the credentials of each of the participants (see 1.6; 5.5; 5.6).
 - ⇒ the background leading to the investigation (see 1.2.1; 1.2.2; 1.3).
 - ⇒ the background of the research (see 1.2.1; 1.2.2; 1.3).
 - ⇒ the reason for selecting this research method (see 1.5.2).

5.5.4.2 Validity

As in the case with reliability, a number of steps can be followed in order to achieve validity in this qualitative study. These include:

- The participants were selected because of their knowledge and experience of instructional leadership and C2005 (see 5.4.2).
- A register was prepared of all data and notes used during data analysis (see 5.4.3).
- Comparisons of data and indications of differences and similarities in the data were noted (see 5.4.3).
- A 'thick' description of the research data was prepared (see 5.2.2.3).
- It was attempted to eliminate preconceptions held by the participants during the interviews.
- An attempt was made to collect data that was negative or extreme; at least one of the participants is recognised as an outspoken critic of OBE and C2005.
- The attitude did not change during exposure to the research. The researcher actually gained a broader perspective during the duration of the research in that the efficacy of instructional leaders regarding C2005 depended on their attitude towards C2005 as a curriculum innovation.
- A full description of the method of the research study and the reasons for undertaking it are given in sections 5.2 to 5.4.
- All data and notes were referred to during data analysis.

5.6 Participants in this study

The principle of the hermeneutic circle was employed and thus the participants appear in the same order as which the interviews were conducted.

- **Jansen, J. (Professor)**

Dean of Education at the University of Pretoria. The interview took place in his office in the Education Faculty of the University of Pretoria, Pretoria at 17:00. Professor Jansen is an outspoken critic of both outcomes-based education and of Curriculum 2005.

- **Vermeulen, L. (Doctor)**

Director of the School for Educational Sciences at the Vaal Triangle Campus of Potchefstroom University. The interview took place at Dr Vermeulen's home in Vanderbijl Park.

- **Chisholm, L. (Professor)**

Chairperson of the Review Commission. The interview took place in her office in the National Department Building in Schoeman Street, Pretoria. Professor Chisholm is based at the University of Natal but was seconded to the National Department of Education for the year 2001. At the time of the interview she had just completed co-ordinating the National Curriculum Statement.

- **d'Oliviera, C. (Mr)**

Curriculum Developer, Free State Department of Education. The interview took place in his office in the Free State Department of Education.

- **Van Tonder, F. (Doctor)**

Lecturer in the Education Department, Vista University. Dr Van Tonder researched OBE and Curriculum 2005 in his dissertation entitled "Die Toepasbaarheid van Kurrikulum 2005 as 'n Uitkomsgerigte Onderwysmodel in Vrystaatse Primêre Skole: 'n Kurrikulumteoretiese Perspektief". The interview took place at Dr Van Tonder's home in Bloemfontein.

- **Malcolm, C. (Professor)**

Professor of Science Education and Director for the Centre for Educational Research, Evaluation and Policy at the University of Durban, Westville. He is author of many articles on outcomes-based education and is widely recognised for having a sound knowledge of outcomes-based education from both an Australian and South African perspective. He is an Australian and has been in South Africa since 1997 where he has involved himself in science education at the RADMASTE Centre at the University of the Witwatersrand and at Durban Westville.

5.7 The findings of the research

In this section the findings of the research investigation will be discussed. The data was organised according to the themes of the interview schedule (Appendix A) which eventually become issues that instructional leaders need to keep in mind when leading and managing C2005.

5.7.1 Curriculum

5.7.1.1 Change

The respondents viewed the awareness and management of curriculum change as important and had the following to say :

Jansen:

hers, for example, next year will have five different policies on that they have to manage, those policies come from four different the National Department and one of them comes from outside from a quasi government agency called SAQA. Now just think a principal to think innovatively and proactively in the context of

five different policies on assessment means that now, unlike in the past, you also have the role of many participants, not leading, but again managing policies that the people want and the teachers and the parents and so on, conscious of the many changes happening around them. So I think in some ways it might have become more difficult, even though the rhetoric of policy suggest that teachers and principals are more innovative now and more creative and more resourceful and all sorts of other things which doesn't actually gel with reality under conditions in which they work.

- *The original Curriculum 2005, the thick version, if you will, carried with it a sense of long term implementation, that is 2005 would have literally been the year in which the final implementation would take place. You now have a totally different timetable with the National Curriculum Statement, which throws that into complete jeopardy, so understandably there is great confusion in the schools. I think the bureaucrats have probably figured out more or less what it means.*
- *What I think the key thing for a high school leader is to try to manage and make sense of the complexity in ways that are marked either/or teachers. This is the key thing. Now that's going to take a lot of hard work and a lot of sifting through many, many documents and a lot of negotiations with provincial bureaucrats etc.*
- *I think its really important to give coherence to the high school educational programme by exercising leadership and that means reading all the stuff, being aware of what's going on, sifting through it and then making that accessible to all the teachers in a relatively non threatening way.*

Vermeulen:

- *With all the different aspects preparing for curriculum change, introducing the new curriculum, controlling that and monitoring that. I think it's very important that the principal takes the ownership for this; in most instances he's responsible for what is happening at his school, he can delegate those powers to the Deputy Principal, but in the final instance it will be the principal that has*

to take responsibility if something goes wrong with the implementation of the new policy, Curriculum 2005. It's the principal that will be on the hook, nobody else. So, you can look at that - study guides for Gauteng - the different aspects that they have to look at.

- *The new streamlined policy will only get to Grade 8/9 in 2008. So in the mean time what are we to do. Gauteng's principle, or policy is that you should apply it as it stands now. The old Curriculum 2005. The Western Cape already adapted to the new idea. My advice to schools is to adapt. Use the old policy, use the old specific outcomes - the 8 in the case of LLC, the 10 in Math, but move more in the direction of specific knowledge, specific skills. Like those prescribed in the new learning area statements*

Chisholm adds that change is not only evident in curriculum issues, but also within a social context:

- *The most important thing about C2005 was the social goals and purposes and these are radically changed. The social goals and purposes of education were realistically not part of society and it is obviously a curriculum that is committed to greater participation and to democratisation of the educational process. But the problem with that is that it is left too open. So it doesn't in fact address the kinds of things that they simultaneously see as being very important, like running the schools and so on. So I think that the most important thing is changing social goals and purposes.*

d'Oliveira:

- *That person must also know about curriculum change - what the purpose of it all is - where it is going. OBE being something that never stands still, its always developing or adjusting*

Van Tonder:

- *I think in the context of OBE the instructional leader needs to be a very competent person in the sense of having the common sense to interpret the curriculum correctly especially in that C2005 is very complicated in terms of all the jargon that is being used and so on and sometimes teachers will find this difficult to interpret what is expected of them in the new curriculum is to take more decisions than they took in the past, they must select content themselves of things they must teach and they must have insight into what types of content should be conducive for learning at that particular stage and leading to the outcomes they are looking for.*

When the above issues are taken into account, it is evident that the instructional leader needs to keep in mind that:

- Proactive management is necessary to manage the many different, changing policies that relate to C2005.
- The policy documents need to be understood and interpreted so that the right content, teaching strategies and assessment tools are selected.
- There is a necessity to negotiate with provincial departments of education.
- Planners need to give coherence to the secondary school programme in the face of the many changes that C2005 is going through.
- There is a need to be aware that democratisation has caused the social goals of education to be radically changed.
- There is a need to be aware that OBE/C2005 is constantly changing and evolving and this requires flexibility and resourcefulness on the part of the instructional leader.

5.7.1.2 Knowledge of policy

From these responses, it is essential that the instructional leader has a thorough knowledge of the policy surrounding C2005, which in turn is underpinned by the philosophy of OBE. As detailed in section 3.3, the policy documents of the NDE

freely advocate OBE as an educational philosophy and use the terminology of OBE. The respondents saw this knowledge as important and had the following to say:

Jansen:

- *It was also politically a very difficult job. The position was in a sense a liaison between the government department and the teachers.*
- *Grade 9 teachers, for example, next year will have five different policies on assessment that they have to manage, those policies come from four different directorates in the National Department and one of them comes from outside government, from a quasi government agency called SAQA.*
- *So, one can make a reasonable guess on what kind of policies are likely to hit what grades, whether that happens on time, whether that happens in private schools first, whether this continues, because all it took was one minister to throw this whole thing out of whack*
- *Well, my advice normally to schools is simply do what you think under your circumstances is best. And that, unfortunately, in many of the schools means the status quo, whatever that is. But I think that's fine. I think I would have liked schools to have engaged with a simpler policy in a much more rational way with much more predictable outcomes etc. But that's not going to happen. I think our capacity for making, managing and implementing policies in South Africa is probably lowest in the world. I've never seen a country, with relative capacity and resources like ours, mess it up so badly.*
- *Well, I think its very confusing, in part because there are so many different polices.*
- *I think at best, you are going to have a very messy situation in which good schools and good teachers do what make sense in their context. But any notion of forcing fidelity between policy and practice won't work, again precisely because of our bungling of our own policy management system.*

Vermeulen:

- *So he should be responsible for getting all the new policy documents, and make it available for all the teachers.*
- *What I tell the schools is for Grade 9 for the next 4-5 years they have to apply the old Curriculum 2005 because that's still policy. The new streamlined policy will only get to Grade 8/9 in 2008. So in the mean time what are we to do. Gauteng's principle, or policy is that you should apply it as it stands now. The old Curriculum 2005. The Western Cape already adapted to the new idea. My advice to schools is to adapt. Use the old policy, use the old specific outcomes - the 8 in the case of LLC, the 10 in Math, but move more in the direction of specific knowledge, specific skills. Like those prescribed in the new learning area statements. What they call the National Curriculum Statement. So the deputy or the instructional leader at a school - he should tell his teachers about the policy.*
- *Officially phase organisers, integration they are still part of our policy that we have to apply, but don't become rigid.*

Chisholm:

- *You have an understanding - that whatever the national policy might be, teachers and provinces will re-interpret and make sense of it within their own framework, in their own terms.*
- *In the meantime we are working on the recommendations of the review committee which was to produce a streamlined Curriculum 2005 which simplified the language and the jargon, and specifies in greater detail what is required at the different grades. And we are using, we have dispensed with all of the range of programme organisers and expected levels of performance and we have simply got outcomes and assessment standards. And we've been looking at drafts we are presenting to the minister tomorrow, and then there is going to be a period of fine tuning and refining until July, and then they will be made public for public comment. But then there will also be a plan for implementation but the plan will be slightly different from the way in which this*

has been implemented. This, I think is focused on, it has been very confusing put into practice. And it is focused on the philosophy, but not very adequately.

d'Oliveira:

- *I would see flexibility, and a broad knowledge of OBE.*
- *They have actually buried themselves. They've taken every single example of policy that we have sent out and they have piled them up and they use them all. It's become for them a real drudge, so one needs to find short cuts. He needs to find what has to be done. He must prioritise what is absolutely essential, and what is essential has got to be written down.*

Van Tonder:

- *C2005 is very complicated in terms of all the jargon that is being used and so on and sometimes teachers will find this difficult to interpret what is expected of them.*
- *One problem that we have however is that if I get information from the Free State Dept. of Education about C2005, each and every province has their own directives on what they would like to see, so what happens eventually there is I have got some very important information from the Free State Department. of Education which I would like to be included into our curriculum, but it does not necessarily relate to the Vistas in other provinces - this is a serious problem to us.*
- *But my personal opinion was that still, even at that stage, information that was very important did not really reach us in time to implement it in those courses. The way they usually disseminate their information is via the OBE Info bulletins.*
- *I would say the main task is to co-ordinate what is happening in the classroom, and have the knowledge from the policy documents.*

Malcolm:

- *And it's got to be an administrative role as well as managing policy.*

The respondents view the knowledge of policy as essential in the role of the instructional leader who needs to:

- Liaise with provincial departments and communicate with teachers, and this is only possible with a through knowledge of OBE policy.
- Collate policy from many different sources, for example, the NDE, provincial education departments and the press.
- Have the ability to find patterns in the evolution of C2005 and the direction it is taking. This must be supported by an awareness that policy statements on C2005 do not only emanate from the NDE, but also from provincial education departments, the press and electronic media such as television and the Internet.
- Have the ability to analyse and identify what is important in the policy documents and use a common sense approach in its implementation in the secondary school programme within a specific context.
- Have a knowledge of the broad principles of OBE to be able to make meaning of the policy documents.

5.7.2 Educator development and training

The respondents were emphatic that proper and efficient educator training was essential to effective implementation of C2005 and saw this as a key role of the instructional leader. They had the following to say:

Jansen:

- *If the bureaucrats in government understood some basic things about policy they formed they would have known that cascading has never worked anyway. Precisely because of a very simple principle that gets aggregated in carrying*

the message down the line. But, you know, God knows why we do these things, I have a sense sometimes that we don't have a bureaucracy that is technically very competent, or even though politically perhaps very particular. I think that may be one of our problems, but it is very clear to me that the model that works best is one that the Danish people have done in Namibia for example, which is that you have to bring people in the district or circuit together where in part for them to get to know each other and share resources. But you then have to follow up those centre based training workshops with in classroom support, that is, and I'm not going to tell you how to do it in a group, but I work with you in the classroom, in your context with your limited whatever to demonstrate how this could work for 55 kids in the classroom. Alternating between centre-based and 'in the classroom' training is not only something that takes time and takes money and takes patience and it takes a lot of commitment from your interviewing structure, be that NGO or the government or a foreign agency, and I don't see the political commitment in our country to sustain that kind of training and support in those ways. Part of it is that we don't make policy to change things. We make policy for a whole lot of other political reasons only, or mainly. And with very little concern for 'How do I teach or train or change the practices the environment within which the teacher works in the most rural parts of the country.

- *I think what we are trying to do in terms of the training of teachers is to make them much more aware of the role of contingency in education, that is, much more aware of the fact that we cannot script a classroom lesson in the way you do a play. That part of what makes teaching exciting is non-predictable and that therefore to make them comfortable with that uncertainty but also confident in their knowledge of the subject to be able to do that, especially at high school, in a way, because anybody who is still at high school will know that without warning the principal can walk in and this has enormous curriculum and teaching implications, and we try and prepare the kind of teacher that can manage that.*

Vermeulen:

- *I can only talk about the Gauteng Education Department. They also tried the cascade model and it failed. They also tasked the district officials with training then they realised that they don't have the specialists that attended the districts, some of them are very good. If I take as an example the two district that we work with, in some of the learning areas they have some of the best people available, experienced teachers that worked their way up. Teachers that were teaching that subject for ten or twenty years, but there are some people who have posts at district offices with no experience in the subject they are co-ordinating or are facilitating, so I think Gauteng realised that they don't have the people and then they, with this new process, the Grade 5 and 9 training for implementation in 2002, they came to the higher education institutions, so in Pretoria they used UNISA and TUKKIES, in Johannesburg they used JCE, in the Vaal Triangle they used Potchefstroom University, the Vaal Triangle campus, in Soweto they are using VISTA University (Soweto campus), in the East Rand they are using VISTA University, East Rand campus. We could go out and find the best teachers for each learning area. We initially used district officials, but they said NO, these people are paid by the tax payer to do their training, they are not doing it so you can't use them. That is a pity because there were some of them that were very good. So then we had to resort to teachers that we know, lectures at the teachers college, lecturers at the university and I think that we have succeeded in finding the specialists for each teaching area. For Grade 5 and also for Grade 9.*
- *In the training process of Grade 5 and 9 teachers we also have the special group for the School Management Team (SMT) and the principals all had to attend and all the deputies and the HODs. We still have to train another 940 of them in the October holidays, from 1st to 5th October, that's specifically for the School Management Teams and their training, for the first two days they do the generic aspects, and then in the last three days they do the management, we concentrate on the management aspects and we also have a round robin session where they go to the specialist for each learning area.*

The SMTs get their 'generics', they get their 'round robin' session in which they are introduced to each learning area and then they are specifically the management tasks in this group.

- *They also contracted us for 40 hours, that we are doing from Monday to Friday, and then we are doing a full house session on a Saturday, so the training programmes were during one week in the July holiday, and on the 8th and the 15th September we will have the follow up training. We asked them to go and try it out at school and then they must come back on the 8th and 15th. Those are the initial 40 hours, then if we did a good job they want us to do another 80 hours so that it will be a total of 120 hours. Now 120 notional hours is a 1 yr certificate, so at the end of that we will be able to issue them with a certificate that will be registered at SAQA and in that they asked us to also monitor the teachers at school, so the idea, we don't have the staff to go to schools and give crit lessons etc., so we think we'll do it through satellite courses in which they must come back and report here. They want us to do these 120 hours that include monitoring.*

Chisholm:

Chisholm agreed that the provincial departments of education were not giving many guidelines and that the cascade model of training did not work. She inferred that with the clarity of the National Curriculum Statement, educator training will not be necessary, and could be covered merely through orientation. This is in contrast to the vast amount of educator training that was needed with C2005 as a result of the vagueness of the old policy documents which were almost incomprehensible. The major portion of the training went into the explanation of the documents, and little training was actually done in what really mattered, that is to say, teaching strategies, an explanation of basic OBE principles and, most importantly, an explanation of the newer forms of assessment. Time was wasted on macro-planning, which is actually the domain of the instructional leader, or trying to script an OBE lesson, which, according to Jansen, cannot be done. She comments as follows:

- *We are not expecting to train teachers in a whole new philosophy of education, but more just orientating the provinces, districts and teachers to what's in the National Curriculum statement. It must be self explanatory.*
- *There is a paper that I've just read by Hargreaves, he is in the Ontario Institute for the study of Education, which looks at the experience of OBE in Canada, and he says that while teachers there struggled making sense of the outcomes and all the rest of it, what they benefited and what they gained was the process of working together in trying to work out what these problems posed.*

d'Oliveira:

- *You are going to have to take your teachers by the hand and lead them to get Grade 8/9 level, because they are resistant*
- *We are desperately trying to change the role of the principal at the moment. What we are trying to - we are busy with the production of manuals. We have produced two manuals by the Maths and Science learning facilitators on the teaching of Maths and Science but in an OBE way, which is actually applicable to all learning areas. We will have them in the last two days and with this book, in co-operation with the Flemish who are managing the project, are now going to start training people in the use of this manual. In the intermediate phase. But the people that we are targeting to train are now the principals, because we feel that its time that the principal took a lead in OBE. He would hear about OBE from the staff and then get all puzzled and worried. From now on we are training principals first and then staff afterwards. That's our new - that's our approach. Its going to take more time. We were hoping in the beginning that principals would come when the staff came, but they don't, and they wont. So we will actually now, and we will from next year target principals first and SMDs first we are getting them together and from there we will go on to the staff.*
- *Next year we are going to train Grade 8 and 9. In fact Grade 9 was trained last year in June.*

Van Tonder:

- *I really feel for teachers who are not well trained and qualified and do not have the necessary experience and so on are definitely not coping with the format of C2005 and I am afraid to say will select the wrong content.*
- *I would like to say that as far as my research was concerned, I found very serious shortcoming in the initial training - universities, technikons, colleges of education and so on where lecturers were very reluctant to start implementing OBE, even in their own teaching. I'm at Vista University, one problem that we have however is that if I get information from the Free State Dept. of Education about C2005, each and every province has their own directives on what they would like to see, so what happens eventually there, is I have got some very important information from the Free State Department of Education which I would like to be included into our curriculum, but it does not necessarily relate to the Vistas in other provinces - this is a serious problem to us. So the basic planning that we give our teachers is more a theoretical type of training on OBE, but I am afraid that the practice that they get is not sufficient as yet. If we come to in-service training, the initial in-service training that was done by the cascade model was ineffective - I found that in my research - teachers complained that they still did not know what to do, they felt left in the lurch eventually - I do get the impression however that the Free State Department of Education has taken a lot of trouble in educating the teachers in this regard as far as new developments are concerned. They continuously have workshops and so on to get the information through to these people. We also do in-service training of teachers, but a problem that remains always is teachers want to see how do I do this in the classroom. You are training me to assess in this way and that way, but you don't show me by taking me into a classroom and showing how you apply it to the learners. That is the only comment that you hear from the teachers.*
- *Everybody who has done research has found that teacher training was not enough, it was not sufficient. I mean even if it was five days or 40 hours it was*

really not enough. I attended one of those but we did not get 40 hours training - I think it was something like 32 hours eventually.

- There were some schools I interviewed which had not yet started OBE!. There is no inspection by the Dept. No follow up. There is a serious shortage of staff. If you compare to Gauteng and the N Cape they have got many more people. If there is no instructional leader in a school you can forget it.
- C2005 is very complicated in terms of all the jargon that is being used and so on and sometimes teachers will find this difficult to interpret. What is expected of them in the new curriculum is to take more decisions than they took in the past, they must select content themselves of things they must teach and they must have insight into what types of content should be conducive for learning at that particular stage and leading to the outcomes they are looking for. Obviously together with this goes the selection of methods or how learning will be facilitated, what activities the learners will actually do and what teaching aids they would like to use.

Malcolm:

- I think there are a whole lot of reasons why the training failed. Well Linda Chisholm talked about that pretty well, but, first of all there were too few of the trainers who were actual practitioners, and they retreated from there into a beaurocratic definition. The beaurocracy of outcomes and phase organisers was much more suitable because there's no beaurocracy for learner-centredness. So learner centredness fell off, and issues of content and all those things were just badly handled.
- But I reckon that we still haven't come to grips properly with the notion that professional development has been learning on the job. We say that professional development means hiving off to workshops somewhere. And when three teachers sit down after school every day for a week, to write a module on something, Man, then that's professional development of the richest kind. Because they know that they'll have that module ready in a

couple of weeks time, they know the resources, the brainstorming plan to it has got to go into development teams.

- *You actually have to write, there's got to be a development. In Australia we call it "work required learning".*
- *We insist that all learning in the class should be work required. In other words it should be aimed towards a product.*
- *You've got to say, lets talk. Now what do we do with it. Now it could be an artificial product but why not be a policy. Why not be an article for the school bulletin.*
- *A presentation at a staff meeting in some weeks time, or something. You just have all of that thing product oriented; it focuses the energy. And the learning that come out of that can be immense.*
- *Whether bringing in external bits and pieces, maybe even someone to talk to, and the professional development that can happen in that, boy that's great!*

It is obvious from these responses that educator development and training is essential. The respondents offered the following:

- Cascading did not work and it is up to the instructional leader at the school to continue the training.
- Educators need constant training by experts (who can be knowledgeable educators at the same school), and on-going classroom support.
- In-service training by provincial education departments is seen as vital.
- Educators need to be trained in the selection of relevant content and teaching strategies.
- Educator training requires careful, structured planning and implementation.
- Educators need to develop creativity and spontaneity in an OBE teaching and learning environment, and must be given the confidence to break away from scripted lessons.
- School management teams need training in the management of C2005 at secondary school level; this is especially true for the principal who ultimately has ownership of the programme.
- Constant monitoring and support is necessary for effective training.

- Educators need to be motivated before they can be effectively trained; they need to buy into the concept of OBE.
- Educator training at tertiary institutions needs to be addressed.

5.7.3 Assessment

The researcher has found from experience that assessment in an outcomes-based teaching and learning environment, as opposed to the traditional approach, is the most difficult of the OBE concepts to apply in day-to-day teaching. Assessment techniques in an outcomes-based approach are very different and educators need consistent, on-going training and support. The respondents had the following to offer regarding this difficult area:

Vermeulen:

- *If you look at this new one, the assessment chapter - the old assessment method that we used for say, languages, you had your oral, and you had to get your oral mark in each quarter, or two or three in one quarter, or the oral aspects, speaking and listening skills, then the reading skills and the comprehension tests, you should have marked a comprehension test every quarter, essays, letters, you must put in those marks there, and the grammar test and the poetry and the prose. And then you get a mark for the quarter, by adding up all the different marks- and that was continuous assessment. Now we can include portfolios, we can get peer group assessment, we can get group assessment, but they are not replacing tests and they are not replacing essays that the teacher has to mark. The teacher still has to mark one or two essays every quarter. And the same with the other subjects. In Maths you have your, what they now call different strands and sub-strands and they should write a test on every strand, every quarter, and that's continuous assessment. With the inclusion of group and peer group assessment*
- *That's also one of the fallacies of OBE that they think that its only criterion referenced and not norm referenced. What they said right from the start is that*

there will not only be test and exams. That doesn't mean that you don't have tests and exams any more, we still have norm referencing in the latest education directives. They referred back to norm referencing. We need norm referencing and especially with secondary schools, parents don't want to know that in the eight learning areas he got A, P, B, N, and B is better than an A. So he want's to know, what's my child worth.. What's his quality in Maths. Can I dream about sending him to Kovies to study medicine or to Tukkies to do Veterinary. What's his ability in Maths and Science and Biology. And you cannot measure that with a lot of outcomes, so what I promulgate is, assess according to the specific outcomes, but also give a mark. That is the result of the continuous assessment, not only the tests and exams but also the peer group assessment and so on, and the group assessment and the portfolios, but, parents and teachers and learners want percentages or a symbol - A or a B. (And here A is better than a B)

- There is still a place for an average. The academic learners should still be honoured and recognised. So the only way that you can do that is to average out the percentages for all the learning areas
- In the primary schools now they say everybody should get a prize. So this one gets a prize for neatness, that one gets a prize for attitude, and they have prize giving ceremonies from Monday to Friday from Grade 1s to everybody, even if you are Tarzan - everybody must get a prize.. But I think the whole Western culture is about this - people that excel. We want people that excel, and we must give them recognition. They must get something out of it. In the socialistic/communistic attitudes everybody is equal, everyone is as good as the one next to him, so if you look at this examples on page 89 - the learning programmes - you assess them according to the learning area, the specific outcomes, but you still have in languages a mark for listening skills, speaking skills, reading skills. your comprehension test, your prose, your poetry. Those are your reading and writing aspects and you get the total mark for the quarter you add them all together and that's your year mark. Then your specific outcomes from 1 - 7 in languages - If you give him (what's it in the Free State) - N for not achieving for the first outcome - you should be able to make and

negotiate meaning - then the parent will want to know why you give him a 4. Then you can refer to that listening skills, he does not understand what I talk about in the class, he is not able to speak, he cannot negotiate meaning, he cannot make meaning, he failed that comprehension test, he got 2 out of 10 for that - that's why I gave him that mark.

- *We have parents who are difficult. They want to know, why did you give him an N or a B. Or an A and not a B*
- *Reports to the parents will not contain the marks for each section; it will have, for the quarter, the specific outcomes and average marks for that standard. There is also one for Mathematics with their strands and sub-strands, numbers, algebra, shapes, space, measurement, data. You average it out, you also have your specific outcomes (no 2 is basic calculations), number concept, he should be able to manipulate numbers, but that may mean the basic calculations, I can manipulate a lot of things but I cannot manipulate numbers, but I can add them together and subtract and multiply and divide, so when you give him an N for not achieving in specific outcome No 1 then you should be able to tell the parent that he got 2 out of 10 for that. That test in basic calculation that he wrote. I also have an example of a school report - I've called it C2005 High School - now they did a percentage for say English and then a symbol for each one of the 7 specific outcomes. The same for the 2nd language and Maths and Science etc. But, we still went back to specifics. Especially in the secondary school. I agree with the Junior Primary people - the are smiling faces and sad faces and its good enough for the junior primary but the secondary school must be more specific.*

Chisholm:

- *There is also a lot of confusion amongst teachers about what assessment means in an OBE model. So again, in this National Curriculum statement we are trying to address it through having , I mean what we will have is little booklets with the outcomes and assessment standards, plus a section on assessment giving teacher quite simple guideline on what assessment is and*

how it can be done. But you know you can give teachers a guideline and the booklets and all the rest of it, but in the end it's what teachers do in practice that's what counts.

- *I'm really thinking in terms of the National Curriculum statement and we've got the critical outcomes and the learning area outcomes, which are very few, and a substantial number of assessment standards, and the assessment standards play different roles, but the learning outcomes, for example, what is expected is what the learner should be able to display. Now how you assess that is to apply to a particular instance and to develop an assessment exercise that requires the scholar to show that they understand the Russian Revolution, the Industrial revolution - whatever it is.*

Chisholm agreed with the following statement made by the researcher:

The most difficult thing about OBE, once you have got the staff to accept the concept, they accept C2005, they understand about transformation, they understand about the skilling, but you put a educator in the classroom and she is bothered about the paper work that is attached to assessment. How you assess, she is scared of using criterion-referenced assessment, where you are giving symbols. They want to know, - the children and the parents want to know - what my child got out of 10 for a maths test. They want to know who came first and who came last. And they are getting bogged down by the paper work of assessment, where you are supposed to assess every day.

d'Oliveira:

- *The whole assessment area is very important.*
- *They have a big problem with - they really have made themselves so many forms for assessment that they are now - they have actually buried themselves. They've taken every single example that we have sent out and they have piled them up and they use them all. It's become for them a real drudge, so one needs to find short cuts. He needs to find what has to be*

done. He must prioritise what is absolutely essential, and what is essential has got to be written down, but not everything. He cannot be pedantic, this guy, otherwise he will destroy everything. In fact we have got to keep it simple. In fact, that is the place that we can pass ideas on to other schools.

Responding to a statement by the researcher that summative assessment should be used to compliment continuous assessment, d'Oliveira had the following comment:

- *Summative (assessment) is not the be all and end all. In fact we have made that move and that is very important.*
- *It still think that not enough attention is being paid to the actual assessment in critical outcomes, and to me that can be done by means of a rubrik, provided you know what you are looking for, and one must realise that you are not assessing to see that the critical outcome has been achieved or demonstrated, you are assessing to see whether the learner is making any progress along the lifelong path towards the critical outcome. That is for your specific outcomes. You can achieve your specific outcomes along the way on a higher and a higher level but by the time you become a perfect communicator, which is probably never, you are getting closer and closer, and then you fall back again*

Van Tonder:

- *I do think that the assessment standards allow the teacher the opportunity to use his or her own creativity.*
- *Individual tasks have their place, even in certain instances lecturing will still be necessary and the same applies with a variety of assessment techniques. That I think is the secret of OBE - a variety of teaching to make provision for the variety of learners that you have in front of you.*
- *The first thing I would like to re-iterate is variety - a variety of assessment methods. Yes it is true we must move away from exams, from summative assessment only. I do believe really that we should do formative assessment*

for the purpose of improving the learning process - it is very important to me, but use a variety of assessment methods to take into account the different learning styles of learners to also prove themselves. As far as the instructional leader is concerned - he should co-ordinate the assessment to make sure that all teachers do use a variety of methods and to implement formative, continuous assessment. I do not believe that we should do away totally with summative assessment. Norm referencing has its place at the end. While the learning process is taking place I am in favour of a criterion referenced system.

- *You cannot move away totally from norm-referencing and, from the courses we have given, we see that the teachers are very worried about this issue of criterion referencing, and what we told them there is that they must move away from marks which is something they are not very fond of. I personally am not very fond of using marks. I got my children's OBE reports yesterday for each performance indicator they have tackled, so I know exactly where my child is. I know that have achieved beyond what would be like a distinction in the past, or are on standard, or perhaps just below standard, or they did not reach what they were supposed to reach. I am very fond of it because I can see exactly, what is achieved. In that way I am very fond of criterion-referencing - it can be used for diagnostic purposes. Unlike the past with norm referencing with marks they did not tell me where the problem was. I like continuous assessment, and when we get to the promotion of learners one will have to go to some of the old methods. Problem with the "new" exam next year in Grade 9, the paper will only cover a few of the outcomes - the purpose will rather be some kind of quality control.*

When asked whether norm-referencing would have to be applied to maintain standards, when large numbers of learners were involved, Van Tonder replied:

- Yes

Malcolm:

- *Assessment should give every kid the same chance to show what they know, and they should be allowed to impact to somewhere on what outcomes, the ones that are relevant. So all that throws assessment, throws standards for assessment and standards for management, into strife because the only way to do it is to distribute power and authority within the classroom.*
- *And if the task is too narrow, almost by definition, assessment lines up kids who do well and kids who don't. If the task is broad, that sense of ranking and over simplification is lost, because the different kids do the task different ways. And so they can no longer be simply ranked in that judgmental way.*
- *If we think of my idea that learner-centredness means power sharing to some extent, assessment is the greatest expression of power and coercion. You know, I had one of my colleagues who delved deeply into the social and critical power story. And the kids who are having trouble with the task, and she just hit them with assessment. And said unless you satisfy the assessment on this thing - in other words, in the middle of a socially political paradigm, she coerced them by assessment. At least incompatible with the primary position, so the role of assessment just in the power sharing has got to be reconsidered, and learner centred assessment makes further demands; the richer the task, the richer the outcomes and the more varied the outcomes the more children choose to give exits to different outcomes, so , to give an example, if we were running a class and there was one little kid who piped in and the teacher said to me he's never piped in like that, and he did so with diffidence, and the class was inclined to laugh at him, but then they responded, they understood that he was really in. So, for that little kid, the biggest outcome of that whole module was that he felt that he could do science. That's probably the most important outcome for him, and she felt in fact that he would be buoyed for the next six months. He could just be carried along by that one brief minute. Now the kid that was next to him, who was already well confident of her own abilities in science, that outcome was totally irrelevant. So how does that figure in your assessment regime? How does it figure on*

your report card. So then after that - I mean we could talk about the assessment forever, but I reckon you've got to mix it up - again you've got to do the coaching kind of assessment that said yes, but can this child add, and if he can't, I've got to teach him to add. I mean that's highly specific.

Responding to the question as to whether this could be norm-referenced, Malcolm responded:

- *Yeah, but its task-referenced in a sense, or whatever, and then you can say how does he put all this together in complex performance? That's your authentic assessment. But seeing you are assessing on outcomes requires this writing criteria or standards - its usually called standards-based assessment - and I really like the idea of a four point scale task, related or generic, so that the new approach here it to try and get those standard written.*
- *You score it on a rating scale, and you've got your scale here, and that's driving your assessment, not particular words and sentences. So its not a mark. Teachers are actually quite good at, or can be taught to be quite good at, fairly easily, making those broad assessments. And its not so far off if you think about it - I've done this with teachers - where you just hand them three essays that kids have written in Grade 8 in an English teacher theme and you say, line all these up which one would you give an A, B, C. And they don't know. And then you say all right now, lets concentrate about this. What are the criteria, and so that determines you A and your C. And those teachers will agree fairly soon. I don't wish to overstate it. But they'll all agree fairly soon that this is an A because -, this is a B because -, and then they say, Oh, I must write this down, level A equals level B equals level C.*
- *They break away from the marks memo and even a rubric that's got thousands of marks.*
- *the original criticism of Curriculum 2005 had no guidance on assessment*
- *what happened in Australia, they told teachers they could teach any way they like, and so they could teach behaviouristically, and say at the end of this lesson every child will be able to -----, or they can teach flexibly. Then a year*

later they said now we want you to submit all your assessment results. And the Math teacher who submitted results that said every child in my Grade 4 class is at level 3, which is the normative level, the Education Department just sent him a note back saying you've got to be joking. If the bottom kids are at level 3, what have you been doing with the top kids? So teachers immediately realised that they had to have a spread of levels. Now a level is a year and a half or so in normative terms, which means in essence that in a Grade 4 class you've got some kids at Grade 2, some kids at Grade 6, and most of them at around Grade 4 in the age group. So that's the interesting thing, and it makes it difficult to know what to do with the slow kid. But what they did in Australia is to say that you have to - if there's a little kid who's just making slow progress through the levels because he stays with the age, if he's making slow progress then you've got to develop an individualised learning programme and put him into some corrective loops, either enrichment or extra time.

- - I think you should be able to get it going with teacher based assessment, but the marriage of an ideal, and ideally and I think that the enormous amount of money that goes into testing, if you put that into teaching and development you might get there. You know there are other payoffs. You can still do the accountability testing in some minor way, I mean they weren't going to hit everywhere but people said they might hit my school today - I better be here. So I think you can do that accountability thing statistically and properly in some minor way as a forum against teacher based assessment and as an indicator of teacher based assessments. The other big thing that the monitoring does, which schools tend to miss out on, is to pick up on groups who are troubled. And you know that a teacher in a school is probably not going to come up with gender issues, race issues - all those other issues. He might see things like that at an individual level, and recognise it as that a kid in trouble, but when the National testing as a diagnostic tool, obviously can show you that there's a whole domain there, there's a whole geographical location that needs help. Or there's a whole group of students who they will define that need help. So that monitoring stuff can help - its good diagnostic stuff as well as - the same formative summative thing.

Analysing the above data highlights the following:

- Continuous, formative assessment is an integral part of C2005 and incorporates newer assessment techniques such as portfolios, self, peer and group assessment.
- OBE assessment should not only be thought of as criterion-referenced. Norm-referencing still has a place, especially to evaluate and maintain standards where large numbers are involved, at for example, national level. Norm-referencing satisfies the demands of parents that the school should produce percentages for the purpose of recognising academic achievement.
- Reporting to parents should combine elements of both criterion and norm-referencing.
- Assessment, in the hands of skilled instructional leaders, can be made simple without losing effectivity.
- Summative assessment has a place and will continue to complement formative assessment.
- While specific outcomes are relatively easy to assess, assessment of the critical outcomes is posing problems.
- Assessment criteria, as prescribed in the policy documents, allow a variety of teaching styles and assessment techniques.
- The instructional leader needs to co-ordinate assessment very carefully.
- Assessment tasks should be designed in such a way that they allow learners a chance to demonstrate competence in many different ways, certainly in many more ways than a one-off summative assessment. This empowers and motivates learners; Malcolm reminds us of one of the fundamental characteristics of OBE, that success breeds success.
- Rating scales are a valuable assessment tool.
- Proper, carefully thought out assessment criteria are essential. Once again, training is vital.
- The policy documents had no guidance on assessment, and educators need to be trained in assessment techniques.
- Diagnostic assessment is necessary to identify slower learners, in order to provide remediation.

5.7.4 Teaching strategies

A vital task of any instructional leader is to ensure that quality teaching and learning is taking place. This is brought about by making sure that educators are up-to-date with the teaching strategies that support an outcomes-based approach to education. The respondents had the following to say about teaching strategies:

5.7.4.1 Integration

Vermeulen

- *I think it's very important - if you look at the lesson structure it should be structured in the way that a child learns - according to themes.*
- *They want the holistic approach. And they tried with the phase organisers, so that in every learning area, whether you are teaching Mathematics or Languages or Human or Social Sciences or Technology, everybody will be busy with the same topic or theme at the same time - that's the phase organisers. Now the schools would choose a phase organiser, say about transport - that's a very popular one in Gauteng, because transport is a big problem, so the child will come into the languages class and he will hear about transport. He will get to know about the different modes of transport, the names for that, the vocabulary and then he walks to the Maths class and they talk about renting a bus, and the bus costs about R900 and it can take about 100 learners in that bus. What will the cost be of that. And then they go to the Natural Sciences, and then its the natural process and all the internal combustion engine, and the difference between a diesel and a petrol engine and then to Human and Social Science, with the influence of the different modes of transport on the community, and in every class its about transport. And what the Chisholm committee found is that children get plain bored - bored with transport.*

- *Tell them, officially phase organisers, integration they are still part of our policy that we have to apply, but don't become rigid. Don't tell all eight learning areas this week we are doing 'Communication' - that week we are doing 'Transport'. Because it doesn't fit in with the sequence of knowledge that you have to teach the learners. What happened with this forced method of integration was that teachers were led, not by natural development in the subject, but by the demands of phase organisers. So in some cases they did 'division' in Mathematics before they did 'Addition' and 'Subtraction'. And there is a certain sequence of knowledge, and in the new curriculum statement they also refer to this sequence. You just can't teach everything as you please; you must use the right sequence. There is certain basic knowledge that you must know before you can move to other. So, I think its still part of the curriculum, or even the new National Curriculum Statement that there should be integration - but it should not be enforced. It should be a natural process.*
- *I've got an article from a German, Langer, where he wrote in favour of the lecture at university level. He said that some learners go to a lecture because they listen to not only the knowledge, but also the experience of that person. And he will never be able to find that for himself. It's a dream. There are still some things that need to be taught in the old way and I think that is what is nice from the new streamlined curriculum. They put the emphasis again on basic knowledge and basic skills. Those things that should be taught*

d'Oliveira:

- *We are still finding with the life-performance roles, or the life functions as we call them, that we've set out that the teachers are finding it very easy to plan from there. It doesn't matter at what level - they've found them useful, and useful for planning anyway. They are true to the OBE principle but we are filling in the gaps more.*

Van Tonder:

- *Integration is very important, but content still remains important I believe, and that's why I am very happy about the National Curriculum Statement, although they do not always necessarily refer to content. If you look at the assessment standards that they have proposed, it is divided per grade which I like quite a lot. Then the teachers know what level is expected of them, which they do not know at the moment with C2005, and I really feel for teachers who are not well trained and qualified, and do not have the necessary experience, and so are definitely not coping with the format of C2005, and I am afraid to say will select the wrong content.*
- *The only thing is our teachers (in general) cannot cope with it. But there are teachers who can cope very nicely with it and effectively integrate the learning areas. I mean I've seen work done by many teachers whom I'm very fond of, and are coping very well with the current format of C2005. Your work the other day that you asked me to duplicate (SASEN project) that I liked a lot, because integration was involved, and I think it's very important, but I don't think that many teachers are on that level that they can they can do that effectively*
- *I think that learners get access to very broad learning areas, especially those that do OBE from grade 0 to grade 9 exposed to many different fields of learning, which are obviously integrated, and they should by that stage have an idea of what they like.*

Malcolm is not entirely convinced that integration is done for the right reasons and feels that it should go deeper than simple integration between learning areas. He comments as follows:

- *The integration across learning areas often tends to be false and silly. No know, I used to laugh at teachers in Australia. You know, primary teachers would write a module called "A day at the Beach" for example, and they would say that the kids could walk on the sand and write a poem about it, that's Literature. They can build a sand castle, that's geology and technology. And they are just snapping things up and calling this, 'this' and this, 'that' and*

any sense of progression and development is being lost. And in fact its not integration because the kid is either building a sand castle or writing a poem but he's not, or probably not, actually doing both things at once so they are quite different actions or disciplines arising out of one context.

- *I don't mind the phase organisers and all that stuff, but I mean the more important integrations were simply ignored. And that's the integrations of 'in schools' or 'out of schools'. The integration of theory with practice. The integration of action with value. So a lot of those integrations were suppressed in favour of this other silly content integration which was often seen. If we had a high constrained thing which looked at some aspect of science, in a fairly clear way that helped that kid to integrate it, in this particular instance with a theological perception, or in another instance, with a technological perception, and a third instance with his daily life in some active way, there are many integrations.*

The integration of content between learning areas drew mixed responses from the respondents. While agreeing that integration is necessary, they advocate that it should not be forced and must be relevant. It must also be remembered that one of the major criticisms of C2005 is that it is strong on integration and weak on content. Educators need to be taken by the hand and guided and trained to effectively incorporate integrative techniques into their teaching.

5.7.4.2 Mixed ability teaching

Jansen:

- *Well, again, this is why the new teaching is such an incredibly complex task. Because among 500 other things a teacher is supposed to do, she is supposed to have, and make sense of, all the kids in the class and take them along whatever their level of competence in the subject etc. And this is very difficult - unless you've taught, you don't understand that this is not something that you just pick up along the way. This is something that extremely skilled teachers find exhausting and difficult to do. I think you've always got to teach*

to a focal point. As an average teacher you are always going to focus on the middle of the road, and so not on the very weak or the very bright. And I think that in order to develop all children and stimulate them, keep them informed, requires a combination of methodologies from co-operative learning to one-on-one student support, which is very difficult when you have large classes, and even more difficult when there's 499 other things that you've got to do as well. So I think its extremely complex, and I think it's not going to happen, and nor is there a simple equation for doing this. Except recognise that it is a problem and that it will require a broader repertoire of teaching strategies than most of teachers have been trained for.

Vermeulen:

- They wanted to prescribe every method to which the teacher had to subscribe. They overemphasised input, they overemphasised subjectivity, they overemphasised the teacher as a facilitator. This new one, they are moving to a more balanced situation. In the past, when I was at Tukkies in the 60s they told us to look at the needs of the learners. At one stage you should be more of a facilitator, at another more of a transmitter. The inductive and the deductive, process. In this book on didactics you'll find a reference to Prof Markgraff from the Rand Afrikaans University where he said that teachers should be didactically flexible. In the same lesson you can move from being a facilitator to being a transmitter, and you have to look at the needs of your learners and also the inductive/deductive process to give them, to spoon feed them and at another stage to do exploitative teaching.
- You'll also find reference to 'scaffolding'. You have to scaffold every time to a higher level of learning. There are references in this new book about that research in England about group methods. You'll find the reference there, but I feel very sorry for teachers that want to teach always in the group situation.

d'Oliveira:

- *things about co-operative learning and constructivism, inductive teaching, team teaching, the important things.*
- *Yes we have moved quite a way away from Spady. We have moved more towards a more pragmatic 'what works in the classroom' 'what works for teachers' 'what do teachers need' particularly what are the needs of OUR teachers in OUR circumstances. OUR teachers and OUR circumstances are totally different from the type of teacher that Spady may have been envisioning using his OBE, and we have got very different learners, and we have got much bigger classes. The teachers need scaffolding that is to say our teachers need help, they need grade by grade steps. We've moved much closer to the Australian model.*
- *I think the big difference is that, in his (Spady) outcomes-based education, the teacher was much more the facilitator and the learner was much more of a discoverer. Because of the availability of resources, because of the enriched situation. In other words our teachers needed that gap breached - the outcome. We are still working towards the outcome, but they are being given possible steps to follow in reaching those outcomes. Those possible steps Spady would see as learners getting there in different ways, and that would be betraying the principles to a certain extent, to set all those steps out.*

Van Tonder:

- *Two problems that I also identified during the course of my research - teachers complaining about the brighter learner and the slower learner, not only teachers I saw, but also even in some of the literature studies about examples of OBE in the USA, that was one of the problems that they mentioned - that its all okay - because if you look at the way they do it for instance in Johnson City, is that they expect the brighter learners to help the slower learners eventually, and then they tell you to encourage the brighter learners to doing something extra; that may be true, but then on the other hand, I mean my own experience when I was at school, I always had to help other learners with*

Maths, and it helped me, because if I explained something, I got an even better insight into that, and I still believe that it is a very good thing, but OBE says you should also provide for enrichment for the brighter learner when they are finished before the others, because they are supposed to work at their own pace and so on. That is true, but I must tell you, from my research and from nowadays when I speak to teachers, that they just do not have the time.

- *Slower learners also take extra time, what teachers can do is to organise extra classes in the afternoon, but I doubt really if the teachers will get the time to do that properly in their classrooms.*
- *Yes, teachers mentioned this in our conversations - they are also worried about the slower learner, but that time was a problem. One of the reasons was classes of 40 +. I even interviewed a teacher who had 75 learners in the class - so how can a teacher serve the brighter learners and the slower learners?*
- *The idea then is to also lengthen the school day that would perhaps be a solution. Release brighter learners, if you cannot give them things to stretch them, and then to pay attention to the slower learners.*
- *You should have enough time to remediate the weaker learners and stretch the brighter ones.*
- *Learners should get more attention than in the traditional way of many years ago - we did not have group work at all and that was a mistake; it must be structured properly; it has its place; individual tasks have their place, even in certain instances lecturing will still be necessary and the same applies with a variety of assessment techniques. That I think is the secret of OBE - a variety of teaching to make provision for the variety of learners that you have in front of you.*

Malcolm:

- *If there's a little kid who's just making slow progress through the levels because he stays with the age, if he's making slow progress, then you've got to develop an individualised learning programme and put him into some corrective loops, either enrichment or extra time.*

- *If we've got all of these kids doing self directed work more or less, then I make sure I put him with someone to help him, or I stay closer to him than I might to other kids in the class or whatever.*

- *I have a problem with mastery learning because its roots are behaviourism for a start, and I oppose that, because its an external control, and I'm in favour of, I mean, there again pressure in sport, we know that's your management theory very well, but you've got to encourage the internal control, and not just the external control, so Bill Spady's says here is the mastery task, you push the kids to it, if they don't get it you put them through a corrective loop, back to it. And that's him talking it, even when he is talking about complex competencies, he's saying that we've got to use these corrective loops. And if the task is too narrow almost by definition, assessment lines up kids who do well and kids who don't. If the task is broad, that sense of ranking and over simplification is lost because the different kids do the task different ways. And so they can no longer be simply ranked in that judgmental way.*

- *C2005 type stuff is actually better for the - it's got more advantages for the bright kid than for the not bright kid because you're encouraging mega-cognitive strategies, you're encouraging creativity, problem-solving, you're encouraging initiative, power sharing. 'Confident intellectually' is usually prepared to take all those things on. In Australia there was a big fight when we tried to do this stuff at Matric, and there were some of the private schools that were really competing against us, because they wanted to just change exit exams the way people do here, but there were other private schools that just really wanted it because they recognised that in the traditional private school practice they were hashing through the Matric syllabus to finish it by the middle of year 10, and the spend the last 18 months practising for the final exam. I mean, I'm exaggerating but that was their tendency. And that was disgustingly boring for the part of students. And so opening up this chance to fly, to invent the subject at your own level of capacity, and to work with others who were*

brighter than you, less bright than you, similar bright to you but thinking differently, really gave those bright kids a strong chance.

- *I reckon the fourth step which we haven't taken with constructivism is to recognise that constructivism is also an ontology, if you like, and take seriously that we are prepared to allow the kids to construct different versions of the reality, or the phenomena, and so on. So that means opening up in the content, at least to some extent, allowing for some variation in what kids make out and accepting that. It's totally contrary to the idea that 'at the end of this lesson every kid should be able to ...', but it fits with the notion of complex performance and complex problems. So that's the other big argument that came out of the Peoples' Education here. It's the socially critical paradigm. And they've been critical of standard constructivism, personal constructivism, social constructivism, because they saw them as somewhat naive in terms of their failure to understand the structural aspects of power relationships, and the limitations that are being structurally and culturally introduced in the classroom. And so they more or less reduced constructivism to a fairly naive pedagogy - that's their argument. I don't believe it's necessarily true. And so they wanted to shift the whole discussion route to looking at it through the socialist point and power structures and in science, for example, that would commit you to say, how is Western Science characterised and how is it conformed to the African world view. So that ends up pretty much in the constructivist bag - its just another way of allowing constructivism to come through. So I'm pretty strong on that constructivist point of view.*
- *It is only in the last while that Science educators, anyway, have been prepared to see constructivism in its epistemological, ontological variations and not just as pedagogically ... particularly content. So the standard way that normal countries around the world become science educationists, to draw the science out of the structure of the discipline, and draw progression out of the structure of the discipline.*
- *As soon as you give kids power within the learning environment they've got to think at a better level of learning - they've got to think at a mega-cognitive*

level why they are doing anything. Because the teacher isn't providing them with that instruction. It has to come from the pupils because the teacher has just left it open to allow different learning styles, and it ties in with constructivism, so the kids got to work on a number of different levels at once. And, again, it's such a natural thing to do.

- Little kids like to work in different ways - every teacher can respond to that. I mean I used to have a list of about fifteen different learning styles. They were all derived from literature, one way or another. This sort of kid likes to have a lot of structure and be told what to do - and that little kid likes no structure and likes to invent all the time - juxtaposed in the same learning programme.
- If I never give him a chance to invent surely he is going to get frustrated and become a discipline problem, apart from not learning anything. And if that little kid only speaks Zulu and I speak always English then he's got no chance. And so we get around some of these things - then group management and power sharing become obviously necessary. And the teacher just has no problem with that.
- I think co-operative learning is important in lots of ways. One is that it is a satisfactory way of managing difference. Instead of, I mean the 1960s approach for managing difference was through individual learning programmes - programme learning, it used to be called, which you could do more easily now using the computer, and some people argue for that. So that's a way of individualising the pace, maybe even the learning routes, but not very much the learning outcomes or the links to context. But with co-operative learning strategies, and with group projects and things like that, we can allow kids to work in quite different ways. So there is that aspect of pedagogy, which has to be built into curriculum design, and the third aspect is probably choosing the examples and contexts, and we underestimate just how powerful that is.

Democratisation of education has increased the need to address teaching strategies that deal with mixed ability learner groups. Globalisation and the advent of the Information Age have increased the numbers of learners who are choosing Science, Mathematics and technical subjects, and this has exacerbated

the problem of mixed ability teaching. This, coupled with the demand of OBE that every learner is unique and works at their own pace, places enormous demands on the successful and effective management of C2005. The following points emerged from the respondents:

- Mixed ability teaching strategies are complex and require a range of methodologies ranging from lecturing on one hand, to co-operative learning on the other.
- Teachers need to be trained in effective mixed ability teaching strategies such as co-operative learning (in which learners take responsibility for their own learning), inductive teaching, a knowledge of constructivism and mastery learning. Mastery learning, as an integral part of an outcomes-based approach to education, was viewed as too behaviouristic a method for use in C2005, which is viewed as a progressive pedagogy.
- To address these methods, learning content needs to be presented in different ways.
- Mastery learning is, however, seen as an effective strategy to stretch brighter learners and remediate weaker ones. It is recognised that this will take time.
- Peer teaching would seem to be a recognised and effective teaching strategy.
- Educators must exhibit didactic flexibility.
- Educators need to scaffold and take learners to higher levels of learning.
- Group work is only one method of dealing with mixed ability groups.

5.7.4.3 Developing thinking skills/problem-solving

Creative thinking and problem-solving skills are called for in C2005 in the critical outcomes, and the respondents had the following advice for instructional leaders:

Jansen:

- *I think before you teach thinking skills to kids you have to teach it to teachers. South Africans don't think, which is why we never won Nobel Prizes in Physics and Chemistry and Maths. In Peace we won a lot and we still have more. But*

we don't think. We come out of an authoritarian society, which in many ways still has authoritarian strings, in which compliance is more important than dissent. Now, when you have that kind of a system hierarchical, patriarchal, authority driven, then how on earth are you going to teach kids the very things that the teachers have not yet mastered themselves. My daughter, for example, found a third way, a second way, alternate way of solving a simple problem in fractions. The teacher took her to task and destroyed her confidence. Now you cannot teach that kid credible thinking or linguistic skills if the teacher herself is still untrained in that.

Vermeulen:

- *The whole lesson structure should be according to the way in which a child learns. So you start off by giving them an overview of the work you are going to cover, then possible questions. Nowadays we change back to the outcomes. At the end of this lesson the learner should be able to do this and this and this and this. That's the same as the old objectives. I would say that the distinction that they want to draw is that objective is something that a teacher wanted. But even ten/twenty years ago we said at the end of a lesson the learner should be able to do this and this, and we called that the objective. What we should distinguish between is the teaching objective and the learning objective. Then you can say that the objective of the teacher is to do this, and the objective of the learner is to do that.*
- *I start off with the traditional lesson structure - the old instructional method. It's still very important - it's still the basis. I think still 60-70% of your lesson should be instructional lesson. Because children still come to school to learn from the teacher, not to learn from each other. And, if they could teach themselves, then they should stay at home. So they still come to school to be taught, so 60% of the lesson should still be the old revisional instructional method, with perhaps more interaction between the teacher and the learner than you had in the past. But if I think back to my old teachers and I matriculated in '65, it's a lot of years, and we had teachers that encouraged discussion in the class, activity in the class, self exploration in the class. But coming back to that*

Didactics book, there are the concept development plan, the concept attainment lesson, there are a lot of examples of your group discussions of self activity, of self exploration, what I want teachers is to vary their teaching methods. The use of all their teaching methods. Nowadays there are some facilitators from the district, if they get into your class, and you are not sitting in groups 90% of the time or all of the time, then they say that you are not doing OBE. And in England they did research and they found that groups are not enhancing thinking skills and knowledge. He can't sit at his table and take responsibility for his own learning because the groups are shifting responsibility to the strongest child in the class, and he is sharing his limited knowledge with the others. He's not growing.

Van Tonder:

- *I would say an instructional leader should first of all be knowledgeable and trained in all the aspects, so that he can convince the teachers who have had many years of training to change from a traditional approach to a problem centred approach, although I still feel a very nice approach, although in maths for instance, with its problem centred approach, there are still people who are against it, saying that there are certain learners who will not cope so well with it. I am still in favour of it.*
- *Yes I did that in my teaching. Last semester I had to teach College of Education students Maths, and I taught them how to solve problems, for instance Polya's problem-solving approach, how to follow that in order to solve a (word) problem and I really felt that it worked.*

Chisholm:

- *High standards. I think its related to what you expect of kids, and if you have low levels of expectation, if you start with the assumption that this kid isn't going to perform, your expectation is that they are not going to achieve very much. I've seen it with my own students at university. If you have high*

expectations, these students will be able to do anything that students in other parts of the world can do. And if you teach to that, they perform. I think it starts with the expectations that you set out, and I think that in the way that we have devised this National Curriculum statement, and of course it will have to be tested on the public to see what people think, and if it is of a high enough standard or not, I think we have set the standards pretty high. With Arts and Culture for example, in many schools which haven't had it before, there are high expectations of what the children can be able to do. So it will place pressure on teachers and schools, and I don't think this is necessarily a bad thing.

- *I think it is linked to the method of pedagogy. To whether you answer all questions. If you are the scholar, and you are constantly asking me, the teacher, the answers, and the teacher is constantly giving the answers and not throwing things back, then that kid is not going to learn how to solve problems. Its about actually resting a lot of the learning process with the scholar. I think that's what it's got to do with.*
- *I think its important to encourage children at different levels to perform to the best level that they can perform. So, if there are kids in the class that are not being stretched, they need to be given tasks they will stretch them.*
- *Ja, there are different ways that children can be stretched. I mean, they can be stretched either by taking things home to learn, to swot, or by being given projects and little things to find out about.*
- *Mastery Learning is associated in some approaches to OBE, or some criticisms of OBE, particularly Jonathan Jansen, will say that Mastery Learning is part of an approach to OBE which emphasises behaviourist objectives, which don't really promote learning. And I've got some sympathy with that position. I mean, obviously kids have got to learn to the best of their ability, however they can, whenever they can. And it is the task of the teacher to ensure that that happens. The climate of responsibility rests with the children*

as well. In so far as children need to master as much as they should, I take a very pretty common sense view of it.

Malcolm:

- *Outcomes-based is a way to re-define content, so that are its two functions, competing functions to some extent, the other one is to shift towards industry-oriented, or work-oriented competencies. And the other one is to shift towards social critique. And citizenship, in its way. So that's the outcomes basis, and the learner centredness one, which I think has been too greatly overlooked, should be allowing different individuals, different groups, to interpret the outcome for a start - say to shape the outcomes according to their local situation, and learning needs, and to learn in different ways, their own different styles, bring their own contexts etc. to be; and so the learner-centredness one, and I think that South Africa is the only country that I am aware of that talks about a learner-centredness system.*
- *I am personally at a point where I'm trying to take that further. We use learner-centredness - you can talk of levels of learner-centredness - I think the first level is just loving kids. And if you can set up that good rapport with kids, respect and understand, and all that stuff that teachers always believed in, then the kids will respond in good ways. Now I don't think teachers do as well as they might in that loving kids and caring for kids line. That would be the first requirement, the second one is essentially pedagogic, where you let kids learn in different ways. And that requires, since there are so many different ways, demands on curriculum design, and it also makes demands on classroom management, because you have got to set up classroom structures that allow kids to take initiative if they like to work flexibly, which is where things like co-operative learning, and activity learning start to come in.*
- *So the idea of critical thinking, or whatever you want to call it, learning strategies, becomes an object of discussion. And you can do that with problem-solving, you can do it with communicating, literally you can do it with all sorts of things. And you can do it at a philosophical level.*

- *I think it actually works both ways, so what you would want to do, I know that what I would want to do is exactly what my English teacher was just saying. You could say "How did you do this - did you actually go right through this with suspended judgement and make a table over here, or did you in fact find that, by the time you had worked three examples, you had already generalised a law tentatively?" And now you started testing the law, and you then say that I think there might be more than one law, and so some kids again are working guess-test, guess-test and others are in a suspended judgement different way.*

- *I don't know, I haven't really resolved it. And I'm not averse to swinging in behaviouristic, diagnostic solutions. So I think we have got to hold on to that one. And then, that's what - again it's natural. It's when we make it unnatural that we stuff it up. Nobody coaching a soccer team would just let little kids play naturalistically - he would say "Hey, can I just tell you if you do this, bounce your ball slightly differently here you are going to get a stronger kick, or whatever, so that coaching aspect has got to be there. Now whether the coaching occurs in the context of a bigger project or a more complex task, and I think it should, or whether it occurs at a separate coaching class, and I think it should there, there's nothing wrong with drill and practice, and nothing wrong with rote learning, but it needs to be in the context of a bigger game.*

- *Now, the problem we've got, to use the soccer example again, little kids have no trouble lining up around the witch's hat and dribble, dribble, dribble, dribble, I'm learning to dribble. But if you told them they are never going to play, then all they are ever going to do is dribble and dribble and dribble, and then one day we would give them a mark for being good dribblers. That's drill and practice, drill and practice - it's lost its point. But, if the outcome is not to be able to play a game then what the hell are we doing. And that soccer coach would say you can't play in a game until you've got to a certain level of dribbling, and a certain level of inside kicking and outside kicking, so its back to this thing, back and forth between the bigger picture and the details, and that's what mega-cognition does and that is what problem-solving does, that's what*

reading does, that's what soccer players do. I'm know, I'm simplifying but it makes it understandable.

- *However, if that teacher is not going to have the skills to, or the respect, or the rapport, or whatever is required to provide good structure in what appears to be a widely devolved system, because that's the trick - you've still got to give structure, you've still got to give to direction, there has still got to be discipline. So to learn the skills of getting that structure and discipline, distributing the control, is quite hard*
- *The kids out-nerve you. So you've got to find out, how is she able to get the kids working most. And then she's got to be prepared to put her foot in the water and stretch out from her comfort zone and just develop some new tricks.*
- *I think it was thin on content and I agree with the Chisholm review that it didn't pay enough attention to vertical development and ideas. And the research is clear, and we should have known from common sense anyway, you can't solve problems of which you know nothing about. You can't have conversations about things of which you know nothing about - so to say that we are going to have critical outcomes and problem-solving and communication etc. etc., if you don't have some standard content, you can't do it. I can solve problems in Science, I can solve problems in Curriculum, but I can't solve problems in Economics because I just don't know any. So you have got to have the content.*

The teaching of thinking skills and creative thinking needs to be addressed as an essential requirement of C2005. The respondents offered the following advice:

- Educators need training in the development of thinking skills in learners.
- Teaching strategies are important in developing thinking skills.
- The lesson structure should have clear outcomes, to focus learner attention and give a clear understanding of what skills are required.
- There is concern amongst the respondents as to whether group work actually enhances thinking skills and knowledge. In group work, the responsibility sometimes shifts from the learner to the group.

- High expectations of learner achievement will encourage and motivate learners to think and perform at higher levels.
- Developing thinking skills involves the educator in encouraging learners to ask questions, but not to answer them immediately; learners must be given an opportunity for reflection before the answer is given.
- Research projects encourage thinking skills.
- Mastery learning as OBE teaching strategy doesn't appear to encourage thinking skills in that it is too behaviouristic.
- Learner centredness is important; it encourages activity-based learning.
- Vertical development of content in learning areas is essential to develop effective thinking skills and problem-solving.

5.7.5 Resources

The issue of resources is always going to give rise to a lot of debate. This is because resources, whether human or material, are going to cost money. The more affluent schools will always have an advantage over less fortunate schools, with the financial and support base to afford the purchase of resources such as textbooks, computers, Internet access and so on. An obvious role of any instructional leader is the generation, management and maintenance of resources and the respondents had the following comments:

Jansen:

- *I think that being able to both manage and generate resources is imperative. Now, depending on what schools you are in, in South Africa, that's always going to be more difficult or less difficult, but I think in middle class schools there's probably not much more you can ask middle class parents to do, besides putting up so much of their own personal funds for good tuition, for additional teachers etc. So I think that stuff, I think getting money in this kind of economy is always going to be difficult. I think one of the ways in which potential as leaders can in fact generate resources, is through the school base*

of parents. In a school of 2000 or 800 kids there are always going to be parents who, without having to spend money, are people who can either enrich the curriculum through demonstrations of their own professional skills, give guest lectures. I've had this in California schools - it was so common. You know, your dad works for NASA and you come and give a lecture in the Science class - in the Physics class etc. So those kinds of things, I don't think we've exploited as South Africans, I think partly because we think of parents as idiots and as nuisances, and not as present resources in their own right, and so on. So, I think that means a principal is particularly inventive, so not enough of that is happening

Vermeulen:

- *What we find today is that teachers are lazy because they want to go out and get resources. You have to put it in their hands.*
- *You can use your parents - the type of parents that your school needs to teach technology. We don't have technology teachers, we are using the old technical drawing teachers, home economics, typing and computer - but you can use parents, you can use anything near at the school. You can use an engineer at your school - your problem-solving process is very important in technology*
- *Ja, it's a pity because a good text book is still the best thing for any learning. I always say that the text book is a good equalising factor, whether you are a bad teacher or a good teacher, if you have a good text book the learner can go on. I think it's a dream to think that teachers will be able to develop their own text books at the school level.*
- *What about the previously disadvantaged schools that don't even have electricity, Some of them don't have copying machines or they don't have money for paper or for ink. But the new policy is very clear - it says so in the report, in the final discussion that they want to finalise by December this year, textbooks and learning material that should be developed. I had discussion with people from the various publishers yesterday in Johannesburg or Pretoria.*

There's a report in 'Die Beeld' today on what Dr Nico Caarstens said from Nasou (Nasionale Pers) They still want more information but I think, I don't want to be a teacher without textbooks. You need textbooks.

Chisholm:

- *Curriculum 2005 continues to be implemented as is with that idea of the teacher as the facilitator, and scholars having to find their own resources and so on*
- *There is now common acceptance that there have got to be text books and that sort of thing*
- *I think that what has happened is that C2005 threw text books out of the window and said use all kinds of learning resources - that's fine, but many teachers actually rely on text books. And you don't want to promote the tyranny of the text book, but you do want to acknowledge that some teachers need crutches, and need some assistance, and that text books aren't all bad. So they will be part of the repertoire of resources.*
- *The Dad is doing all the work. That is actually not learning, It is not finding out what the resources are that you can use.*

d'Oliveira:

- *All text books are a valuable resource.*
- *As a language teacher I can do this and I can plan a lesson using this resource, whatever it may be, and it will be useful for me and it will be an excellent outcome. And I can do that today, and I can do that tomorrow and I'm meeting outcomes using resources all the way through. But for me to say 'use your resources' is easy - its not that easy at all for many of the learning areas where they have to select resources that are valid.*
- *Its useful if you use a text book that is outdated and you add another book that is updated, then you can compare and find the differences and see where*

progress has been made, and so there is a learning process in that as well. To me no book is irrelevant.

Van Tonder:

- *I would say I agree with the Review Committee Report that one should look at textbooks again, but perhaps not move back to one textbook for a learning area per child. One should provide them with the opportunity to work from a variety of sources, one should not move away from that, but for the sake of the teachers, textbooks can help solve the problem, but then the authors selected for those textbooks must be selected very, very carefully*
- *So that's what I would like to see, worksheets being used, a teacher who takes trouble in making teaching aids, many different resources like books and perhaps a computer, and I do not want to see only one textbook.*
- *In a learner centred mode, the kids become an important resource, because you've got to be able to talk about their lives and their thoughts and so on, so in the first instance the kids are a good resource, and of course the teacher is an incredible resource. After that, I think, exemplary learning materials are critically important.*
- *The problem with text books is that they're almost obliged to stay with the 1960s pedagogy, because a textbook by definition is supposed to be universal - to write one text book for Sandton City and another one for Toyandu is expensive at least. So, the text book tends to be universal, and then wishing to be universal it's pushed to be abstract, to some measure, to disconnect from life experience, and as a linear teaching idea, so to use text books as learning programmes. And I think we are only beginning to experiment with alternative forms of texts. I had a lot of fun writing alternative texts for students and alternative text for teachers, and so why not, and what's the chance of publishers producing worksheets and such, just in newsprint -style, something like that. Give up the idea of a universal market, and think how can we try and localise the market somehow, or at least have some response to the different environments in which different kids learn.*

C2005 policy documents were very vague on specifying content, and this led to the belief that textbooks were no longer necessary. The perception was created that educators had to produce and generate resources from scratch, and this caused enormous concern and confusion. This was a misconception in that, although there was no content specified in the policy documents, it was to be understood that no knowledge, skills or attitudes could be developed unless there was a sound body of knowledge to support this. The reason for this oversight was that it was to be understood that the outcome or demonstration of competence, was the important issue, not so much what resources were used to get there.

From the responses the respondents offer the following:

- There is a definite need to generate and manage resources, whether human or material.
- Parents and members of the community can be used as resources by giving lessons or demonstrations of skills, in subjects where the school has inexperienced educators, such as technology.
- Educators need to be educated, trained and encouraged to develop their own resources. These can range from sets of notes synthesised from different textbooks to worksheets. Even disadvantaged schools can be creative about generating resources.
- There is a definite need for textbooks.
- Learners must be educated to find their own resources; it is not always up to the educators to provide everything.
- In a learner-centred teaching and learning environment learners themselves become resources.
- A problem identified with textbooks is the prescription of content. This, in a system reliant on the use of textbooks, removes, to a large extent, the possibility of flexibility from lessons, and is therefore not conducive to progressive pedagogy. Any textbook, however, is better than not having a textbook at all.

5.7.6 The role of the instructional leader

In summary, the respondents had the following to offer on the role of the instructional leader:

Jansen:

- *I think that the role of the instructional leader should be a leadership role, rather than a managerial role. And I think, for very complex reasons, that has always been the case in the universities but never the case in schools. That is in school specifically and through their own socialisation and there needs to be a South African education. Principals have always been defined, their primary identity has always been a managerial one. It has also been ambiguous in term of his relationship historically, being governed by provincial and national departments of education. And so it was also politically a very difficult job. The position was in a sense a liaison between the government department and the teachers. It was also managerially a very narrowly defined kind of a position in term of what those persons did. And so what you now find in the South African transition where it is expected of principals to play a much broader role, instead of simply having a koeksuster sale or a chilli and pudding evening. You really do have a great difficulty in changing peoples' understanding of their identity to one that was responsible for leadership on curricula issues, leadership on assessment issues, leadership in innovation and so on. Now, there are principals like that who can probably be counted on one hand and I think of Greg Flightman, being principal of the year in Cape Town (he's a good friend of mine). I think of the principal at Waterbron High School, a Dr Becker who's by far, for me, one of the best principals for understanding that role. I think of a man in Sengilikaze, Natal - I think of a man in Venda, of the Sunday Times top school survey. So those principals exist, but they exist partly because they are simply born with a brilliance that understood the importance of leadership on Curriculum reform, for instance. But 95 - 99 per cent of our principals in my view have been trained differently,*

and have been socialised differently and have been governed differently in terms of, at this stage, and so on, so that their roles have been narrow managerial ones, and I think schools are the poorer for that. Not to be sure, in many schools it might be the deputy that rises to that occasion. In other schools it is a particularly innovative Head of Department in Physics. In other words it's a teacher with a particularly strong voice either from a Union base or something independent, but those are diffuse, unpredictable and co-incidental events. It's not really people who have been trained and developed and supported and nurtured and guided and so on to become instructional leaders. So, I think that's an important role, but I don't think it's a role, by virtue of our history, that is self-evident to principals, in the rush to simply be a ship afloat. Now, I think there is another set of issues here, and that is to do with the competing demands being made on principals today, which was not the case in the past, to manage policy. Grade 9 teachers, for example, next year will have five different policies on assessment that they have to manage, those policies come from four different directorates in the National Department and one of them comes from outside government, from a quasi government agency called SAQA. Now just think about this. For a principal to think innovatively and proactively in the context of five different policies on assessment means that now, unlike in the past, you also have the role of many different managers, not leading, but again managing policies that the people are aware of, and the teachers and the parents and so on, conscious of the many changes happening around them. So I think in some ways it might have become more difficult, even though the rhetoric of policy suggest that teachers and principals are more innovative now, and more creative, and more resourceful and all sorts of other things, which doesn't actually gel with reality under the conditions in which they work. So, in a nutshell, I think the instructional role of leadership, be it the principal, or some other senior person, is absolutely critical on curriculum issues. If schools are to become more than simply recipients of government policy, but also engage in that policy, then as I said, both history and institutional constraints really make that more really difficult.

- *The role of the instructional leader is to make sense of the contents, watching the educational changes taking place, and to make that meaningful to teachers and parents and learners and so on in the school, and to use a good dose of common sense mixed within their thinking - Mixed with a responsiveness to the policy, but it will never look the same to two schools, even if they share the same fence.*

Vermeulen:

- *In the old days the principals visited the classes. The Senior Assistant had to go the class of the teacher that is under you, or that you are responsible for, and you have to sit in and you check their scrips - certain afternoons you ask them to take in all the scrips, and you go to the class and you page through all the scrips and see what they are doing, what the quality of the work is, and I think Principals, Deputies, Heads of Departments Subjects Heads will have to take up that responsibility again, and see what children are doing in their textbooks, or visit the classrooms. In the schools where I was a teacher we had a thing where you invite your Head of Department to come and listen to a lesson, because only the principal that was allowed to do 'klasbesoek', not the deputies or Head of Departments. But we asked them, you can invite us. If you do have a lesson, a good OBE lesson, a group session or something like that, invite us. Let us come and see what you are doing. My daughter is still a teacher in Pretoria and they do that. They learn from each other. This whole idea of team teaching is very important in OBE.*
- *If you look at the special characteristics of this person he should be a didactician. He should know something about learning and teaching. Nowadays they don't distinguish any more between teaching and learning because it is one thing.*
- *With all the different aspects preparing for curriculum change, introducing the new curriculum, controlling that and monitoring that, I think it's very important that the principal takes the ownership of the programme. He must be responsible for what is happening at his school, he can delegate those powers*

to the Deputy Principal, but in the final instance it will be the principal that has to take responsibility if something goes wrong with the implementation of the new policy, Curriculum 2005. It's the principal that will be on the hook, nobody else.

- He should be a teaching and learning specialist. His first interest should be teaching and learning. He is a dedicated teacher.
- So he should be responsible to get all the new policies, all the learning area statements, new official policies and it's not necessary for all eight learning area teachers to run around to the district office/head office to try and get learning area statements. So he should be responsible for getting all the new policy documents, and make it available for all the teachers, make copies. And once he has given that he makes sure that if he's not able to help the different learning area teachers, then he should find someone to do that for them.

d'Oliveira:

- I think first of all that that person needs to be flexible in management and then someone who can organise, motivate staff and provide resources. It must be someone who helps to provide quality teaching and learning. It's an attitude.

Van Tonder:

- Well I think, in the context of OBE, the instructional leader needs to be a very competent person in the sense of having the common sense to interpret the curriculum correctly, especially in that C2005 is very complicated in terms of all the jargon that is being used and so on, and sometimes teachers will find it difficult to interpret what is expected of them in the new curriculum and to make more decisions than they made in the past, they must select content themselves of things they must teach and they must have insight into what types of content should be conducive for learning at that particular stage and that lead to the outcomes they are looking for. Obviously together with this

goes the selection of methods, or how learning will be facilitated, what activities the learners will actually do and what teaching aids they would like to use.

- *Things are changing and I mean for the instructional leader specifically; the way that it should be done is not in an inspection way but rather for the purpose of assuring quality and development.*

Malcolm:

- *There's got to be an instructional leader. Give him some time off from class work to do a lot of this stuff, to co-ordinate after-school meetings, and some discussions and workshops, bring resources in, push things around a bit.*
- *It's got to be an administrative role as well.*
- *For the role of the instructional leader. Yeah, I think he's going to be mostly a person-mover creating opportunities, bringing in themes, that can help special functions as a curriculum design function. That's what he's got to be working with. And then link that in with professional development which might be the out of school/in school thing, but more particularly is the school as a classroom. The school as a learning organisation. And he can drive that fairly strongly. I think it has got to be a work oriented thing, and it has got to be administered, and I think he's got to have reward for it, either in time out of class or in some other way. And there should be ways of finding reward for teachers which define active leadership in that. Now, in the new regime that can be all wedded into the school's evaluation and rolling plans theme, just to break down the privatisation of the very private nature of the classroom. If you can get teachers into a mood of experimentation, talking about kids and talking about their work, it just goes on and on, so then you can split it into your three year rolling plans or whatever, that schools are shortly be expected to produce. And that's the magic that the system is boasting about.*

5.8 Summary

In this chapter the theoretical framework of qualitative research was outlined, the qualitative research of this study detailed and the findings of the research discussed. Six leaders in the debate on OBE/C2005 were selected as co-researchers in the investigation into the role of the instructional leader regarding C2005. Unstructured interviews were conducted with the respondents. The atmosphere was relaxed and was therefore conducive to spontaneous, quality responses. An interview schedule was used to ensure that the different aspects pertaining to instructional leadership, as elicited by the literature study, were covered. Each interview was taped, immediately transcribed *verbatim* and the data analysed with the help of a word-processing programme. With the help of the Miles and Huberman (1984) matrix table, the data of each respondent was compared and similarities and differences highlighted. A report was then compiled according to the themes that were identified.

The last chapter of this study will use as a framework the themes that arose out of the interviews and will synthesise the data of the literature and qualitative studies. With the help of this synthesis, recommendations will be made for instructional leaders regarding C2005.

The following patterns were identified from the qualitative study:

- **Curriculum**

All participants felt that the management of change was necessary and that an interpretation of the policy documents was a vital necessity in order to implement the curriculum satisfactorily. They also felt that coherent leadership was necessary to manage the change in such a way that the teachers did not feel threatened, and that the learners were not compromised. In addition to the obvious instructional implications of change, it was noted that social goals and purposes are also going to change and will need to be addressed at classroom

level. The instructional leader needs to make sense of the complexity of the vague and jargon littered policy documents. One respondent suggested using a combination of the old and the new to make sense of the changes.

- **Educator development and training**

From the responses obtained there is no doubt that aggressive educator development and training is required for C2005. The initial educator training offered by the national department, through the provincial departments, did not work and any follow up training needs to be done by experts in the field of classroom implementation of C2005. This can be addressed at school level should there be competent personnel available and educators need to develop creativity and spontaneity in planning OBE programmes. As a result of the impact that C2005 has on school organisation, educational and instructional leaders need to be trained in order to manage and support the implementation of the new curriculum.

- **Assessment**

The biggest paradigm shift from the new curriculum required by educators was that of assessment. OBE assessment must be open and transparent and careful planning is required when setting up learning programmes. The original policy documents followed OBE philosophy, and called for a change in referencing from norm-referencing to criterion-referencing, with all the implications of no percentages, no class positions, no competitiveness. The respondents partially agree by endorsing this type of assessment, and advocate that the norm-referencing must still have a place, especially when large numbers are involved and quality control is required.

Continuous formative assessment is thus supported by all respondents, and tasks should be designed in such a way that they enhance learner development. Carefully thought out assessment criteria are essential.

- **Teaching strategies**

C2005 calls for a whole new way of teaching and learning, rote memorisation of work has no place, and learners need to be taught creative and problem-solving thinking skills; in other words learner-centred approaches must be adopted. Group work that is found in many C2005 classrooms needs to be structured according to the framework of co-operative learning, if it is to be effective, and the respondents generally felt that group work did not develop such skills. Thinking skills and creative thinking need to be addressed by setting clear lesson outcomes and creating high expectation of learner achievement. Mixed-ability classrooms add to the complexity of classroom management and educators need to be trained in teaching strategies that will address mixed ability teaching and techniques, involving a knowledge of inductive teaching, constructivism and mastery learning.

- **Resources**

C2005 makes great demands on resource provision and it is a specific role that needs to be competently addressed by the instructional leader. The respondents felt that there was a definite need to generate and manage resources, human and material, and suggest educator training in the development of resources. Textbooks still have a place but, in a learner-centred teaching environment, it is necessary to employ a wider variety of resources. Educators need to guide learners in accessing data from different sources and in learning to make meaning of this data.

- **The role of the instructional leader**

The respondents saw the instructional leader in a leadership role rather than a managerial one, and as one who leads and innovates quality teaching and learning. The role would include having a knowledge of the many policy documents and liaising with provincial departments of education. In this way the

instructional leader would fulfil the role of curriculum developer. In some cases, the respondents felt that the school principal would not carrying out the role, but it is necessary that the principal take ownership of instructional issues. The instructional leader needs to be a competent educator, a didactician who knows about teaching and learning. This gives the instructional leader the academic credibility required to monitor and support staff during staff meetings and class visits. One respondent mentioned that the instructional leader should select content to make sure that it would be suitable for the learners' developmental level and that he/she should have a through knowledge of teaching methods. Co-ordination of the whole C2005 programme was essential to ensure integration and a thematic approach. Possibly because of their tertiary background, none of the respondents mentioned issues like time-tabling, being a visible presence and other more mundane issues connected with the role.

The data gathered from these headings will be used to answer the following question:

What is the role of the instructional leader regarding C2005 and what needs to be done for the successful implementation of C2005?

Chapter 6

Summary of Findings, Conclusion and Recommendations

6.1 Orientation

The main objective of this research was to determine the role of the instructional leader regarding C2005 and to draw up a set of guidelines that will be of assistance to them. Secondary schools have just started implementing C2005 at Grade 8 level (2001) and, in 2002 will prepare Grade 9 learners for the first exit examination of the NQF. In order to be an effective instructional leader within this context requires a knowledge of the underlying philosophies of OBE and the design and structure of C2005 as a new curriculum. It was therefore necessary to make an investigation into both these concepts. The previous chapters have often made mention of the paradigm shift required for educators and learners, but it follows that a paradigm shift is also required on the part of educational and especially in the role of instructional leaders. New ways of looking at the school's instructional programme are required to ensure quality teaching and learning. It is hoped that the recommendations made in this regard will be recognised, and that they will make a valuable contribution in the evolution of our changing educational system.

6.2 Synopsis of the research methods

6.2.1 Literature study

The research was supported by a literature study on:

- The origins of OBE and its influence on the design of C2005 (chapter 2).
- The structure and implementation of C2005 in South Africa (chapter 3).
- A study of instructional leadership (chapter 4).

6.2.2 Qualitative research

Qualitative research was done into the role of the instructional leader and this is fully discussed in chapter 5. Six respondents were selected for the interviews. Five of the respondents are from university education faculties and one respondent is involved with curriculum development at provincial level. In-depth interviews were conducted according to and with the assistance of a pre-determined interview guide. The respondents discussed OBE and C2005 in general and then focused on the role of the instructional leader regarding C2005. They commented on which issues, relating to OBE and C2005, they felt would need to be addressed by an instructional leader.

6.3 Summary of findings

Relevant information from the qualitative research was summarised (see 5.8) and compared to the literature study discussed in chapters 2,3 and 4. The philosophical underpinnings of OBE were discussed and mention was made of its influence on the design of C2005. The design and structure of C2005 was outlined and its implications for instructional leadership highlighted. The role of the instructional leader was outlined within this context and guidelines (see 6.6), to assist instructional leaders in fulfilling their role. The findings of the literature study and the qualitative research are discussed in the next section.

6.3.1 Curriculum

Effective instructional leadership is dependant upon a thorough knowledge of the curriculum. This will include curriculum change, the interpretation of policy documents and effective communication (see 4.7.4.9).

While studying the origins of OBE, the structure of C2005 and the role of the instructional leader in chapters 2,3 and 4, it became clear that the instructional leader needs to be knowledgeable about general curriculum issues (see sections 3.3.1; 3.3.4; 3.4; 5.1; 5.3; 5.7.1.1). Tyler's rationale urges curriculum planners to set clear aims and objectives and to be mindful that these objectives are met through sufficient content knowledge. C2005 documentation appears on the surface to be thin on content (see 3.6.1; 3.7.6.5; 5.7.1.1). Instructional leaders should also be mindful of Bernstein's curriculum recommendations that clear evaluation criteria need to be worked out and that the environment, in other words society, will begin to have a marked influence on schooling (see 3.3.3; 5.7.5). The new policy documents of the NDE, (see 3.3.4) outlining the new curriculum, state that co-operation, critical thinking and social responsibility are requisites of learners of the future (see 3.4.7). The literature study also strongly advocates, human resource development (see 3.4.1) as a strong design element of C2005.

6.3.2 Educator development and training

Due to the changes that C2005 has required of teaching and learning, it is necessary to address the issues related to educator development and training. From the literature study on OBE in chapter 2 it is apparent that a new way of looking at education is required (see 2.3.1; 5.7.2). This is especially so at classroom level where the curriculum is implemented and delivered. Table 2.1 highlights the differences between traditional education and an outcomes-based approach, showing that there is a shift from content based- and rote-learning to learning based on outcomes, where learners demonstrate competence. The emphasis is placed on what learners can produce or demonstrate at the end of a learning experience (see 2.3.4). Knowledge is integrated and non-disciplinary (see 3.6.3). Learning programmes start with outcomes and Spady's design down principle of backward mapping places new and unfamiliar demands on educators with regard to subject knowledge and teaching strategies (see

2.3.7; 5.7.1.1). With the lack of specified content in the policy documents (see 4.7.4.12.2; 5.7.1.1; 5.7.1.2; 5.7.2), many 'textbook-bound' educators have difficulty in adapting to the creation and design of lessons using multiple resources, and then compiling the lesson plans and worksheets that are necessary. It also follows that educators who have not had proper or adequate training in their field are going to be at a disadvantage when faced with the prospect of teaching in an integrated environment rather a specific subject. Over the past year the researcher has found that this especially applies to under-qualified educators in the learning areas of HSS and NS. HSS is comprised of the two different components of History and Geography. NS is similarly composed of Biology and Physical Science elements.

C2005, as described in chapter 3, calls for a knowledge of outcomes-based curriculum that is learner-centred, content-independent, life-skills orientated and criterion referenced (see 3.6). Knowledge must be integrated (see 3.6.3) and this has a two-fold implication. Firstly, collaboration and careful planning is required on the part of the staff to produce cohesive learning programmes. Secondly, educators, as mentioned above, are teaching unfamiliar subject matter.

All of these issues need to be addressed through staff development and training programmes initiated by the instructional leader. In addition, staff need training to make sense of both C2005 policy documents from the NDE, and policy circulated from provincial departments of education. C2005 policy documents describe the following which need to be interpreted before effective implementation and delivery can take place:

- The structure of the NQF (see 3.5.2).
- The critical outcomes (see 3.6.4.1).
- The learning areas (see 3.6.4.1.1).
- The specific outcomes (see 3.6.4.2).
- The assessment criteria (see 3.6.4.2.1).
- The performance indicators (see 3.6.4.2.1.2).

- The expected levels of performance (see 3.6.4.3).
- The phase organisers (see 3.6.4.4).
- The programme organisers (see 3.6.4.5).
- The learning programmes (see 3.6.4.6).

These terms are formidable enough to understand and make sense of, let alone translate into practical teaching techniques, and it must fall to the instructional leader to familiarise the staff about their usage.

The literature study on the role of the instructional leader supports the need for staff development and training. Since the role of the instructional leader is to create a climate conducive to quality teaching and learning (see 4.6.1.3; 4.7; 5.7.2), it follows that staff development and training is one of the major areas of responsibility. Development projects are essential to the success of any school implementing the school curriculum and it is the task of the instructional leader to initiate programmes that will enhance professionalism (see 4.7.3). Professional development comprises an awareness of new teaching techniques and a thorough knowledge of how to increase skills in the application of these techniques.

This development involves the running of staff meetings and workshops on: the management of change (see 4.7.1), guiding educators to create learner-centred classrooms (see 4.7.2; 5.7.6), and advising staff on how best to use and develop resources (see 4.7.4.8.4; 4.7.4.8.5; 5.7.2). Educators respond to opportunities for professional growth (see 4.7.3) and this aspect of instructional leadership is vital for staff motivation and morale, especially in what are difficult times for educators.

The instructional leader does not always need to conduct professional development in the form of meetings; it can be done in an informal way during normal day-to-day interaction in the staff room, on the playing fields and so on

(see 4.7.4.10; 4.7.4.11). The researcher has found that this goes a long way in keeping educator morale high.

The literature, in addition, advocates having a transparent instructional programme in place, a ready source of educational literature, opportunities for educators to attend courses and the means to advance professional qualifications and deepen their knowledge and understanding of educational innovations and developments (see 4.7.3).

The qualitative study strongly supports educator development. The major issue that arises is that the initial training (the cascade model) which was supposed to introduce the concept of an outcomes-based approach to education did not work and thus the structure, the clarity and the usefulness of C2005 as a new curriculum was lost in the initial confusion, and this led to immediate disenchantment and negative feelings. Pro-active schools tried to repair the damage by implementing their own in-house orientation programmes (see 5.7.2). This state of affairs placed immediate and unfamiliar demands on schools and instructional leaders found themselves having to introduce careful planning to implement these orientation programmes (see 4.7.1). Educators needed encouragement to develop creativity and spontaneity in drawing up new teaching strategies (see 4.7.4.1; 4.7.4.2; 4.7.4.2.2; 4.7.4.3; 5.7.1.1). They need to be carefully guided in the selection of content (see 2.3.11.1.1; 3.6.1; 3.6.3.3) especially as the original policy documents were vague in specifying this (see 4.7.4.12.2; 5.7.1.1; 5.7.4.1). Constant monitoring and support of staff is necessary for effective development and training and high motivation levels need to be maintained in the midst of the uncertainty that was associated with the weak initial training and lack of clarity about implementation dates in the initial stages of the new curriculum (see 3.13; 4.7.4.12).

From the above discussion it is clear that educator development and training is vital to the success of implementation and maintenance of any C2005 programme. Specific issues that need to be addressed include:

- Staff orientation in the understanding of the policy documents.
- A working knowledge of OBE principles such as learner-centred, outcomes-based, content-independent, life-skills orientated, criterion-referenced approaches.
- An understanding of the structure of C2005 and the associated terminology.
- Professional development of educators to engender interest and boost morale.
- Monitoring, evaluation and support of educator performance.
- The guidance and supervision of beginner educators.
- The need to address newer forms of assessment.

The task of the instructional leader is to inspire and encourage educators into progressing, and to move away from old-fashioned, ingrained and out-dated teaching methods and to embrace the newer and innovative philosophies and practices of our modern and progressive educational leaders of today.

6.3.3 Assessment

Assessment is one of the more difficult issues to be dealt with in implementing C2005. In the traditional education paradigm, educators are used to working with norm-referencing and summative assessment (see 3.7.2). The usual pattern of two or three tests per term and a final (usually 2-3 hour) examination testing only content was the norm in most subjects. For the purposes of the end of term or end of year report, all the marks (usually expressed in the form of percentages), were averaged to produce an aggregate. Sometimes projects, that were allocated marks in a non-transparent way and were usually only marked on visual presentation and content, were added to the marks of the two or three tests that were used (see Table 2.1; 2.3.4; 5.7.3). If the class average was not acceptable for a particular subject, the normal distribution curve (bell curve) was applied and the average adjusted. Learner performance could be compared, ranked and merit lists drawn up showing who came first and who came last in class.

C2005, with its underlying OBE philosophy brought many changes. Education is based on outcomes (see 2.3.6.2) and assessment and teaching go hand in hand. Assessment is integral to lesson preparation and is not simply a final and concluding component. It is also used to monitor and inform the teaching process (see 3.7.3; 5.7.3). Marks are not always allocated; symbols or rating scales are used instead. Learners' performances are not compared with that of other learners, their performance is measured against set, transparent, external criteria (see 3.7.6.7; 5.7.3). Assessment is criterion-referenced, ratings and symbols are not averaged and learners' performances are not compared.

A critical factor in OBE is Spady's definition of an outcome (see 2.3.6.2) which urges educators to pay attention to the processes of learning and not only to evaluate or assess the end product (see 2.3.6.2.3; 5.7.3). The integral nature of assessment means that it has a developmental and monitoring role to fulfil (see 3.7.3) and plays a role in determining the effectiveness of the teaching/learning process (see 3.7.3; 5.7.3).

The C2005 policy document on assessment stipulates a number of principles regarding OBE assessment that must be adhered to (see 3.7.4; 5.7.3). The most important of these are:

- Links with the critical and specific outcomes.
- The recognition of individual achievements and progress.
- Improve the quality of learning (that is to say, formative).
- Be impartial and sensitive to the gender, race, cultural backgrounds and abilities of learners.

Skills that can be used outside the classroom must be taught and learners given multiple opportunities to practice and develop those activities that are necessary for their future life roles and survival outside the school (see 2.3.6.2.2; 2.3.6.2.3; 2.3.12). Knowledge, skills and attitudes are acquired during the learning process and each of these components needs to be assessed. In an outcomes based approach assessment is more than testing or measurement, it

helps learners develop by focusing on what they can do rather than on what they cannot. It is about success and not about failure and the emphasis is on applying skills rather than on performances in isolation (see 3.7.2). Educators need to be guided and taught to develop and use the newer forms of assessment such as:

- Criterion-referencing (see 3.7.6.2).
- Formative assessment (see 3.7.6.4).
- Continuous assessment (see 3.7.6.5).
- Performance (see 3.7.6.6.).
- Self-assessment/peer assessment/parent assessment (see 3.7.6.7).
- Portfolios, journals, observation sheets (see 3.7.6.8).
- Assessment of cognitive, affective and psychomotor outcomes, that is to say, knowledge, values and attitudes (see 2.3.1; 3.7.7).

An outcomes-based approach advocates against placing marks or averages in learner records and the newer ways of assessment detailed above use rating scales and symbols instead of marks (see 3.7.6.2; 5.7.3).

Pupil performance must be assessed progressively (see 2.3.6.2.3.2) and continuously (3.7.6.5). Assessment in this context is formative (see 3.7.6.4; 5.7.3) which means that it monitors and informs the teaching and learning process by providing continuous feedback to both learners and educators concerning success and failure. Learning provides feedback to learners on their performance and if it is not occurring correctly, correctional loops, as advocated by mastery learning, can be applied (see 2.3.5.2; 3.7.6.4; 5.7.4.2).

There are no surprises in OBE assessment - it is open and transparent in that learners know up-front what is expected of them (see 3.7.6.5; 5.8). Educators are required to set assessment criteria in advance so that learners can assess themselves against these criteria at any time during a learning programme (see 3.7.6.7). This is a critical factor in OBE assessment. The assessment of learner performance is measured against these external criteria rather than against

other learners' performances or against a customary performance norm and this means that assessment in OBE is criterion-referenced and skills-based rather than norm-referenced and content-based (see 3.7.3).

This concept is difficult for educators to adjust to and coupled with continuous assessment (which is not continuous testing) makes the adjustment to C2005 assessment very difficult. Most of the in-service training courses offered by the provincial education department in which the researcher is based have been about assessment. The researcher was personally involved in presenting two such courses, and he therefore has first-hand experience of educator frustrations in this regard.

Educators are uncomfortable and unfamiliar with assessing pupil performance without giving marks or percentages. Using rating scales or symbols is not easy to adjust to after many years of giving marks. The main issue that needs to be addressed by instructional leaders is to get educators to understand that assessment in an OBE context is continuous and formative, that is to say, it takes place all the time and its main purpose is to develop learners and inform the teaching/learning process (see 3.7.4; 3.7.6.4). With this in mind the setting of the tests should be creative and developmental and not just another opportunity to collect more marks.

The respondents in the qualitative study criticised the C2005 literature for having no proper guidelines for assessment and came out strongly that educators need to be trained in assessment techniques. The respondents were also quite clear that the instructional leader needs to co-ordinate and control assessment very carefully. All the respondents agreed that continuous, formative assessment was a necessary part of C2005 and should include the newer assessment techniques such as portfolios, self, peer and group assessment.

The qualitative research showed that OBE assessment should not only be criterion-referenced. Norm-referencing, with its summative component, still has a place, especially to evaluate and maintain standards where large numbers are involved, at for example, national level. The summative component should be used in such a way that it complements formative assessment. The researcher has recently attended OBE advocacy sessions on the 2002 Grade 9 exit examination where it was explained that three 3-hour examinations will be set covering all eight learning areas. The examination will be administered in the same way as the present Matriculation examination, that is to say, set and marked externally and standard norm-referencing would be applied. This was to ensure a nation-wide standard (see 3.7.6.2; 5.7.3). Norm-referencing satisfies the demands of parents that the school should produce percentages and merit lists for the purposes of recognising academic achievement. The qualitative study suggested that, when reporting to parents, a form that combines elements of both norm-referencing (with percentages) and criterion-referencing (with rating scales/symbols) should be produced. The researcher has produced such a reporting form (see 5.7.3; 6.6.2.2.7) that has found favour with his school community.

There was general consensus among the respondents that while the specific outcomes are relatively easy to assess, the assessment of the critical outcomes is difficult. Assessment criteria detailed in the policy documents allow for a variety of teaching styles and assessment techniques and learners should be allowed to demonstrate competence in many different ways. This achievement empowers learners and success breeds success (see 2.3.3.5; 2.3.8.3.1).

The role of the instructional leader in the management, support and guidance of assessment is both obvious and paramount to the success of any C2005 programme. Teachers need to be motivated, trained and encouraged to adapt to the criterion-referenced, continuous and formative nature of OBE assessment. This is a formidable task and guidelines for implementing OBE assessment will be given in section 6.6 of this chapter.

6.3.4 Teaching strategies

The successful implementation of C2005 is dependent upon a different range of teaching strategies. OBE, with its mastery learning and constructivist origins, requires teaching strategies that create learner-centred teaching environments and must address, amongst other things, integration, mixed-ability teaching, thinking skills, problem-solving and creative thinking (see 3.4.2; 3.4.7; 3.6.3.1.1; 3.6.3.2; 3.6.3.3). The creation of a learner-centred teaching and learning environment is essential in C2005 classrooms (see 3.6.3.1.1; 3.6.3.2; 4.7.2; 5.7.4). A learner-centred classroom is one in which:

- The educator is facilitating.
- Learners are actively engaged in learning (perhaps in groups), using many different types of resources.
- Creative teaching aids and media are apparent.
- The educator is moving around the classroom and not stuck behind the teaching desk.
- The learners are being encouraged to ask questions.
- Problem-solving techniques are being used.
- The learners' activities are at the right level with clear outcomes.
- Multi-dimensional, performance-based assessment is being used (see 4.7.2; 5.7.3).

Learner-centredness relies on constructivist principles and both the literature study and the qualitative research strongly recommend that educators adopt constructivist practices in their teaching strategies (see 2.3.5.3; 3.7.5; 3.7.6.4; 4.7.2; 5.7.4). The respondents suggested that educators should adopt a Vygotskian approach and act as mediators between the learner and the environment, in order to assist teaching and action, with the purpose of developing the learners cognitive capacity. Vygotsky is a social constructivist (see 2.3.5.3.4), and the use of language therefore plays a vital role in this mediation process. Educators have at their disposal, the processes of

scaffolding, articulation, reflection and coaching to achieve this mediation (see 4.7.2; 6.3.2).

The Vygotskian perspective of the zone of proximal development proposes a holistic approach to teaching where learning activities be broken down into small units that ultimately come together to make up a skill or an outcome (see 2.3.5.3.4.1; 2.3.5.3.4.2). Spady's OBE approach calls these units discrete outcomes (see 2.3.3.6).

Vygotsky's constructivist principles also imply that educators should be aware of the developmental stages of learners (see 2.3.5.3.4.1; 5.7.4.2). Piaget, in addition to being an early pioneer of constructivism also stressed a holistic approach to learning maintaining that all the senses should be used as input channels (see 2.3.5.3.2). Piaget showed that human cognition does not remain constant throughout life but develops from birth through to adulthood. To Piaget, knowledge is the transformation of experience by a learner, and not just the accumulation of knowledge. Piaget believed that adaptation (adjusting to the environment) with its twin processes of assimilation and accommodation, is an active process which allow individuals to reflect on things and solve problems (see 2.3.5.3.2.1; 5.7.4.3).

These cognitive developmental processes of Piaget have educational implications (see 2.3.5.3.2.3). Schemas available to learners, and the way they are organised, change as they develop into cognitive structures. The structure of a learner's schemas changes at particular points, developing in complexity to eventually include abstract concepts and the ability to think about objects which are out of sight (see 2.3.5.3.2.2).

Within Piaget's four stages of cognitive development, the GET learner is placed in the stage of *formal operations*, which, for educators, means that learners must be challenged to compare new information with old, to explore hypothetical

issues by justifying actions they would take in problem-solving scenarios and to practice in problem-solving and scientific reasoning (see 4.7.4.2).

Piaget's theory of cognitive development, in spite of its shortcomings, provides a valuable framework for the design of both learning programmes and learning experiences. It enables educators to diagnose the current level of thinking of each learner in the class and then to provide possible learning experiences which will foster optimal cognitive development.

Constructivism carries a powerful message for educators and it is up to the instructional leader in his role as staff developer (see 4.7.3; 5.7.4.2) to enlighten the staff regarding the theories of constructivism, especially those of Vygotsky and Piaget, to staff. Piaget's stages of cognitive development and his practical guidelines should also be revisited during staff development programmes (see 4.7.4.2; 5.7.2). Instructional leaders must not miss the message here - the creation of a learner-centred classroom environment using constructivist principles is an important element of successful C2005 implementation. Teaching based on constructivist principles demands a great deal of expertise and educators need to be alert in reading learners' reactions in order to help them through their zones of proximal development (see 2.3.5.3.6).

As outlined in section 4.7.4.2, co-operative learning strategies can be employed (see 6.3.2) but the researcher has found, and the qualitative research supports, that group work does not always enhance learning (see 5.7.4.2).

Mastery learning has its pros and cons. The literature study recommends its use (see 2.3.5.2.1; 2.3.5.2.2.1; 2.3.5.2.2.2; 3.7.7), but the respondents in the qualitative study, while recognising that it has educational value, were less than enthusiastic, describing it as too behaviouristic (see 6.3.2; 5.7.4.2). The value, from the researcher's experience, is that it gives valuable guidelines for baseline assessment when evaluating the abilities of say, the new group of Grade 8s coming into the secondary school, or setting in place correctional loops for

remediation. Used effectively, it can also be used to stretch brighter learners. While remediation is being carried out (with or without the educator), the brighter learners can be working on enrichment material that encourages them to use their higher cognitive thinking skills.

6.3.5 Mixed ability teaching

Constructivism therefore has implications for the way in which instructional leaders carry out their tasks (see 5.7.4.2). Constructivist principles need to be kept in mind when assisting staff to develop strategies for mixed-ability teaching. The qualitative study acknowledges that democratisation of education and the need to address the requirements of the Information Age, have placed heavy demands on educators to develop teaching strategies that include co-operative learning and inductive teaching (see 6.3.1; 5.7.4.2). The respondents recommend the presentation of learning content in different ways, using peer teaching, and encouraging educators to use scaffolding (see 4.7.2; 5.7.4.2) in order to take learners to higher levels of learning, recognising that group work is only one way of dealing with mixed-ability groups.

Instructional leaders are going to have to gradually and gently lead educators by the hand, in small steps along the way, but the result should reward instructional leader and educator alike with the satisfaction of having made the shift successfully.

6.3.6 Integration

As far as integration is concerned, the OBE literature and also the policy documents on C2005, strongly recommend integration of content (see 2.1; 3.6.3.3; 5.7.1.2). The design of C2005 integrates subjects such as History and Geography into HSS and Biology and Physical Science into NS (see 3.6.4.1.1.3; 3.6.4.1.1.4). Spady supports this by maintaining that pupil performance requires the interpretation and application of content (see 2.3.9) for learners to function

effectively in the real world. Facts learned in isolation, or as Spady refers to it, structured task performances, do not require the higher-order thinking skills of analysis and synthesis (see 2.3.11.1.2). It follows, therefore, that C2005, with its OBE origins is strong on integration.

However, one of the major criticisms of C2005 is that it is strong on integration but weak on content (see 5.7.4.1). This was one of the major reasons why the curriculum was reviewed (see 3.1.3). C2005 policy documents maintain that modern economics and societies require the elimination of artificial hierarchies in social organisation, and this must filter down to school level by integrating, not only subject matter, but also theory and practice (see 3.4.4). Spady's transformational model, found on the top of the demonstration mountain, and our South African version of OBE, requires schools to equip learners with life role functioning skills (see 2.3.11.3.2; 2.3.12). Integration is all very well, but it brings with it the problem of lack of sequential or linear knowledge in subjects that need logical thought patterns such as Maths and Science (see 2.3.6.1.1). Instructional leaders would do well to consult the chart, Diagram 6.2, which would assist educators in their integration practices.

6.3.7 Developing thinking skills/problem-solving

The literature study shows that the promotion of thinking skills and problem-solving in learners is high on the agenda for both OBE and C2005. Spady's fundamental life performance role (see 2.3.12), derived from the complex role performances at the top of the demonstration mountain (see 2.3.11), requires problem finders, problem-solvers and problem thinkers. Problem finders and solvers analyse situations and come up with solutions, and thinkers translate thinking into action (see 2.3.1.2; 5.7.4.3). Vygotsky's zone of proximal development requires the use of thinking skills (see 2.3.5.3.4.2). Implementers of OBE-based programmes, that is to say instructional leaders, must look very carefully at the formulation and identification of their outcomes since, if carefully

chosen, will allow learners the opportunity to engage in problem-solving and thinking skills (see 2.3.6.2.3.2).

The NDE definition of C2005 states that the curriculum is based on problem-solving and thinking principles (see 3.3.4; 3.6.1). SAQA's critical outcome no.1 states that problem solving is a requirement for responsible citizenship (see 3.6.4.1) and that the learning area MLMMS requires problem-solving and logical thinking skills (see 3.6.4.1.1.2). One of the aims of newer assessment techniques should be to provide new ways of assessing more complex, open-ended problem-solving tasks (see 3.7.2). Process assessment refers to the determination of the quality of the process, mainly the problem-solving process (see 3.7.5).

Schools with effective learning cultures promote an environment of inquiry and problem-solving activities (see 4.4). Learner-centred environments generate problem-solving activities (see 4.7.2; 4.7.4.1; 4.7.4.2; 4.7.4.3; 5.1.4.3) by using inductive teaching methods (see 4.7.4.3; 5.7.4). Projects (see 4.7.4.6; 5.1.4.3) can also develop problem-solving skills by having learners collect and analyse data.

The qualitative research supports the literature study on problem-solving and thinking skills (see 5.7.4.3). The study, first and foremost, showed that educators need training in developing thinking skills in learners and that they need to pay attention to teaching strategies that develop problem-solving and thinking skills. The creation of learner centred environments is necessary in order to achieve this. The lesson structure should have clear, unambiguous outcomes to focus learner attention and to give a clear understanding of what skills are required. If these outcomes are carefully set and structured, learners can be encouraged to use their higher-order cognitive abilities. The respondents expressed concern that many educators used group work and they were not convinced that group work enhanced thinking skills (see 5.7.4.2).

They felt that the encouragement of problem-solving and thinking skills in learners was directly related to high expectations of learner achievement.

6.3.8 Resources

The provision of resources is essential for maintaining an effective C2005 programme. The literature study shows that education with an outcome-based approach involves a whole school commitment and this includes the development of resources (see 2.3.1; 5.7.2). Resources make it possible for learners to achieve outcomes. OBE calls for a different approach to the development of teaching aids, teaching materials and resources (see 2.3.2). Traditional teaching used mainly textbooks, charts, posters and computer networks in well-resourced schools. An outcomes-based approach requires more than just textbooks. The advent of technologies such as the Internet, satellite TV and the availability of encyclopaedic CD ROM allows instant data access and retrieval (see 2.3.4; 5.7.2; 5.7.5). This places demands on educators who are not technically up to date and the instructional leader needs to address staff training with regard to the use of these resources. Another problem associated with the use of such resources is that learners accessing such data sometimes do so with little attempt at selection. A topic is chosen from the Internet and presented as a 'project' to the educator. In some cases, no attempt has been made to select content material relevant to the topic. In extreme cases groups of pupils present the same material to educators without even attempting to change the font or headings. The researcher has had to initiate staff development programmes to address this issue.

Vygotsky advocates resources as the tools necessary for cognitive development, whether inside or outside the classroom. He maintains that there be an array of resources to supplement the educator's instructional delivery (see 2.3.5.3.4.2). Jansen concurs (see 5.7.5), maintaining that, especially in a time of curriculum change, strategic resources must be allocated. One of the outcomes of Spady's fundamental life role performances is to produce

supporters and contributors, who would in turn invest time and resources to help others around them (see 2.3.12; 5.7.5)

The vagueness of content in the C2005 policy document caused great confusion amongst educators (see 2.3.6.1.1). It appeared that textbooks were no longer necessary or useful and that educators were required to generate and produce their own teaching materials from scratch (see 2.3.13.2). This called for the provision of many resources for staff to be able to develop learning programmes. Under-resourced schools with a lack of staff capacity were affected most, as they thought that the textbooks could no longer be used. The researcher allayed many fears by helping the staff at such schools to develop C2005 programmes using existing textbooks. As noted in section 3.6.3.1.2, C2005 is generally seen as promoting equity through the statement of outcomes, but it does not prescribe inputs, thus allowing different communities to select resources matched to their capacity. There is a flaw in this thinking, however, in that quality outcomes depend on quality inputs and quality inputs depend on quality resource provision and availability. Section 3.13 notes that one of the delays in the implementation of C2005 was the variable quality of learning support materials.

The literature study on the role of the instructional leader shows that resource provision is essential to the running of effective instructional programmes. Section 4.4, which outlines the characteristics of effective schools, notes that problem-solving methods are used as part of their instructional programmes and these are supported by adequate resource provision.

The role of the instructional leader is to find ways of providing resources in order for effective teaching and learning to take place. This includes buildings with classrooms and their associated fittings, and the provision of adequate space for music and drama, media centres and so on (see 4.7.4.8; 5.7.5). Functional equipment such as television sets, video recorders, photostat machines, and overhead projectors are part of the job, as is the provision of

electronic retrieval devices such as computers and the Internet (see 4.7.4.8.5; 5.7.5).

The qualitative study supports the need to generate and manage resources. (see 5.7.5). The respondents are unanimous that educators need to be motivated, educated, trained and encouraged to develop their own resources. These resources can range from sets of photostated notes, displays of collections of materials made by educators and learners, oral presentations by learners and so on. Resource provision is dependent on educator creativity and capacity. Once again, the instructional leader needs to be close enough to the educators and their instructional needs to be able to provide the necessary support. Parents and other members of the community can be used to give lectures, workshops or lessons in scarce subjects such as technology.

The qualitative study supported the literature study by emphasising that textbooks are valuable resources. It is stated in the C2005 policies that textbooks are not to be used; the implication was that other sources were to be consulted as well. Textbooks, with their prescribed content, however, remove flexibility from lesson planning, but this can be overcome by creative lesson planning using the information supplied by textbooks together with other sources and then combined into worksheets which can be distributed to learners.

Both the literature and qualitative study found it vitally important to have an adequate supply of resources for teaching and learning to take place. Resource provision by effective instructional leaders is an attitude and commitment made to staff and learners to provide the materials needed to teach and learn.

6.4 Summary

It is apparent from what has gone before that OBE has had a marked influence on the design and structure of C2005 which in itself has implications for instructional leaders at secondary schools

The aim of the research as stated in section 1.3 was attained and the research question posed in section 1.4 was satisfactorily answered. The role of the instructional leader regarding C2005 was established and practical guidelines for instructional leaders are given in section 6.6.

Essentially, the role of the instructional leader is to guide teaching and learning and by so doing provide learners with opportunities to develop to their full potential as active, responsible citizens. Guiding teaching and learning is about providing the support structures required to maintain and service classroom instruction. To be able to do this requires a sound knowledge of teaching and learning to develop learners in totality and the dedicated instructional leader would do the following:

- Oversee curriculum planning in the school.
- Help to develop learning activities - inside and outside the classroom.
- Develop and manage assessment strategies.
- Ensure that teaching and learning time is used effectively.
- Ensure that classroom activities are learner-paced and learner-centred.
- Develop and use team planning (and teaching) techniques.
- Develop and manage learning resources.

Each of these tasks is made up of many different activities and instructional leaders would possibly adopt the following practices:

- Set up a staff development programme.
- Participate on an appraisal panel.

- Make suggestions to colleagues about planning lessons.
- Assisting colleagues to keep learner-records.
- Visit classes and conducting follow-up.
- Discuss individual learner progress with members of staff.
- Look at learners' work.
- Moderate tests and examinations.
- Discuss educational policy with other educators.
- Induct and orientate beginner and new educators at the school.
- Make and keep contact with officials from the Department.
- Enter their school in a science competition.

6.5 Further research

From the above conclusions based on the literature study and the qualitative research, the following topics are suggested for further research:

- Now that C2005 has been established in Secondary Schools there is a need for further research into the role of the instructional and educational leadership.
- Furthermore, school-based educators need to be interviewed. In other words, educators who are busy implementing C2005. This was not possible for this research, as explained in section 5.4.2, because secondary schools had not yet started their OBE programmes, and had the researcher used educators as respondents, a null hypothesis would have been obtained.
- There is a need to research the effectiveness of C2005 by trying to determine whether the quality of the teaching-learning situation has improved. Has it worked? What has it done to change education?
- There is also a need to determine whether C2005 has met the critical outcomes required by SAQA. In other words have we produced critical and creative thinkers, responsible citizens, data analysts, socially aware citizens and so on.

- In the light of the first exit exam for Grade 9, scheduled for the end of 2002, the effectiveness of the OBE programme should also be examined.

The remainder of this chapter provides recommendations for further research and practical guidelines for instructional leaders.

6.6 Conclusion and Recommendations for instructional leaders

6.6.1 Conclusion

The main recommendation of this study is that there needs to be strong instructional leadership at secondary school level for the successful implementation of C2005. The instructional leader needs to know about, understand, have a working knowledge of, and translate into practice the following:

- The management of the paradigm shift; curriculum change and curriculum implementation.
- The creation of a learner-centred environment.
- The management of human resources; staff development.
- Teaching strategies in a C2005 environment.
- The provision of resources and the financial implications.
- Effective communication.
- Instructional resource.
- Be a visible presence.
- Supervise and evaluate instruction and quality control.

The researcher proposes that the instructional leader should possess the following characteristics:

- He must have a vision of academic excellence.
- He must have sound knowledge of instructional techniques.
- He must be an expert educator in his subject.
- He must have the ability to communicate effectively and by so doing pass on information.

- He must plan effectively.
- He must remain a student and keep on studying.
- He must have a love for children.
- He must be hardworking.
- He must have high standards and be an example to youngsters.
- He must have a keen interest in education.

Whether the instructional leadership of a school is conducted by a single person or a team, the role must definitely be assumed, and indeed assigned by the various governing departments of education, school principals and school management councils. It therefore seems logical that the policy makers of the NDE and C2005 should build this into their strategies and planning as a pre-requisite. Should a team be selected to undertake this enormous and onerous, yet fulfilling and rewarding task, a team leader with enthusiasm, vocation and vision should be chosen to inspire his colleagues, and thereby educators and learners in general, to bring education in South Africa onto the world front, and into the 21st century.

6.6.2 Recommendations

The researcher recommends the following guidelines for instructional leaders. These are practical tips that have a proven track record, having been successfully used over the year that C2005 was implemented into the secondary schools. There are two essential elements in the implementation and maintenance of a C2005 programme at secondary school level, *staff development* and *planning*. These elements need proactive, consistent hands-on instructional leadership and it is hoped that the guidelines given below will go some way to assist instructional leaders in their roles. The charts, diagrams, recording and reporting forms that are given are only suggestions and instructional leaders will need to adapt them to suit their particular schools and communities.

6.6.2.1 Background

Staff development is necessary to win the hearts and minds of the educators. As mentioned earlier in this study, the researcher has been involved in teaching training from the very inception of OBE and C2005. This not only at his own school, but also in programmes that reached wider communities. The researcher attended the initial, statutory 40-hour OBE training course in April 2000 which all Grade 7, 8 and 9 educators were obliged to do. He was subsequently asked to present two sessions at the September course in the same year. These included a component on assessment and the co-ordination of the last day of the programme when teaching strategies within a C2005 context were discussed by all the delegates. This 40-hour training course was presented before C2005 was implemented and no-one had experienced any practical training in the complex staffing, time-tabling and subject choice options that are usually offered. Little advice was available from primary schools who, at the time, were busy implementing C2005 at Grade 7 level. This was due to the fact that primary schools usually only have one educator per class, all learners take the same subjects, and the time table is much simpler than a secondary school one. Some primary schools had bought commercial C2005 programmes which, to the researcher's contention, was against the OBE spirit, which empowers schools and communities to choose themes that suit their particular circumstances. Due to the haste with which C2005 was implemented in Grade 7 some primary schools did not have sufficient time to sit and design in a proper manner, and in most cases there wasn't a clear understanding of the requirements and structure of the curriculum.

6.6.2.2 Guidelines for instructional leaders

Having attended the training course, the staff at the researcher's school met for an initial planning session where it was decided to allocate staff almost exclusively to Grade 8. The staff made a commitment to try to implement C2005 in its purest form and espouse the transformational model of Spady.

6.6.2.2.1 Motivate staff

Motivate staff and involve them in decision making at all levels.

The reasons for involving staff in this decision was due to the negative publicity prevailing at the time. The initial planning meeting was held on the same day that the press revealed that the Minister of Education had announced that C2005 might be abandoned to be replaced by something called Curriculum 21. This was hardly a climate conducive to building confidence and motivation. It was felt that open discussion was needed to allay fears and make a whole-staff commitment. Some senior educators who were teaching subjects such as Maths, Science and Biology were also reluctant to take on the responsibility of teaching the Grade 8 level of C2005 and at the same time administer the Continuous Assessment (CASS) programme that was introduced into secondary schools at the beginning of 2001.

6.6.2.2.2 Acknowledge staff input

Careful staff allocation is required. Listen to your staff, they are the ones who are going to make or break the programme.

Both C2005 and the CASS programme are time consuming and staff are reluctant to commit to both. This is therefore one of the things that instructional leaders need to keep in mind: staff opinions and desires are important if they are going to be totally motivated. Let them have their say, listen to them and, having done so, take a holistic view and do what is necessary to implement a successful C2005 programme. Working with negative staff is demoralising for everyone on the team, and that is what C2005 is about, teamwork on the part of the staff. The instructional leader has to drive this. Hard. Everyday.

The second decision taken at the initial planning session was to start planning themes and outcomes from scratch. These were planned for a six month period

(2 terms) giving enough time to identify and correct problems for the second half of the year. It was felt that planning could not be done for longer than this. The researcher had the vision of trying to introduce Spady's transformational model in the most practical way possible, and also to employ the backward mapping concept of setting outcomes and mapping backwards to the content.

It was obvious that C2005 was going to be streamlined in some way, and taking a common sense approach, it was decided to do away with Phase Organisers and Programme Organisers and to just set a theme for the first term. Having done this two critical outcomes were selected and the staff then chose specific outcomes which would meet them by addressing knowledge, skills and attitudes from each learning area.

6.6.2.2.3 Common sense

Instructional leaders should let common sense prevail and should keep things simple. This common sense is obviously grounded in up-to-date knowledge of the latest policy.

Once this was completed, the staff worked backwards from the critical and specific outcomes and selected the content necessary to meet them. This was done by reviewing the content contained in the existing Grade 8 textbooks. Two reasons motivated this. Firstly, the staff, especially the Maths, Science, Biology and Accounting educators, needed to know that the learners would be acquiring sufficient knowledge to give them a solid grounding in each of these subjects to enable them to take them as choice subjects in the FET phase (Grade 10). Secondly, no new satisfactory textbooks were available at the time. Those textbooks which were available were written with Phase Organisers and Programme Organisers selected by the authors, and were not suited to the school's theme. Some of them, however, were purchased as additional resources for the educators. Content that was not readily available from textbooks, was acquired from other sources and built into the worksheets for the

learning programme. The next task of the instructional leader was to coordinate this information in order to establish where integration could take place. This was achieved by educators completing the form, Diagram 6.1.

Diagram 6.1 Teacher consolidation form

C2005 Term 4 2001

Theme for the term is: culture

Critical outcomes for the term are:

CO 2 - Identify and solve problems using creative and critical thinking

CO 11 - Explore education and career opportunities

Please complete the following and let me have it by Monday 15 October

Learning area _____

Specific outcomes _____

Work to be covered

- o
- o
- o
- o
- o

Assessment of knowledge component (please detail tests, marks etc.)

Test 1 - details	Marks
Test 2 - details	Marks
Test 3 - details	Marks

The researcher then collated data from all the learning areas into the form in Diagram 6.2, which shows the critical and specific outcomes and the theme for the term.

CURRICULUM 2005 TERM 2

CO4-Collect, analyse and critically evaluate information

CO6-Use science and technology critically, showing responsibility towards the environment and health of others

Theme for the term - Planet Earth and Beyond

LLC	MLMMS	AC	EMS	TECH	LO	NS	HSS
LLC1 (Eng- MV)	(Maths-AV)	AC1 (Art -SU)	EMS1 (Acc-DS)	(SM+DP)	(MC)	(MC)	(FC)
SO 1+2	SO 3+4	SO8+SO1+SO2	SO4 + SO5	SO2 + SO6	SO2 + SO4	SO4 + SO8	SO1
<p>Comprehension, oral Vocabulary</p> <p>Kinds of nouns</p> <p>Fourm adjectives from nouns</p> <p>Form paragraphs and sntences</p> <p>Writing paragraphs</p> <p>Working with words - (sensory experience)</p> <p>Recognising film shots</p> <p>Debate</p> <p>Express opinions</p> <p>Unemotional writing</p> <p>Jargon, neologisms</p> <p>Decode diagrams</p> <p>Logical order explanation</p> <p>Similies + metaphors</p> <p>Media research</p> <p>LLC2 (Afr - TV)</p> <p>Reading</p> <p>Listening (vocab)</p> <p>Writing (vocab in context)</p> <p>Speaking (vocab in context)</p> <p>Observing (critical thinking)</p> <p>Answer questions</p> <p>Sign language</p> <p>Idiomatic expressions</p> <p>Use of language in:</p> <ul style="list-style-type: none"> - drawing and design - map work - ubuntu - Modjadja - editing - advertisements 	<p>Numbers,</p> <ul style="list-style-type: none"> -dealing with numbers -rounding off numbers - scientific notification - multiplication and division with multiples of 10 Powers and Exponents - Notation - Multiplication of powers where the bases are the same - Raising a power to a further power - Multiplication of a polynomial by a monomial Integers - Additive inverse of a number - Addition of integers - subtraction of integers - multiplication of integers - division of integers - replacement of substitution Circle - parts of a circle - regular polygons and circles - perimeter/ circumference of a circle - area of a circle 	<p>S African pre-historic art i.e. Bushmen are + culture</p> <p>Create a bushman art work from basic materials</p> <p>rocks, sand, eggs,</p> <p>AC2 (Singing-PF)</p> <p>Preparation for August cabaret - seven deadly sins</p> <p>Comparison of forms</p> <p>INFLUENTIAL bands of the past</p> <p>ABBA, Beatles, BG's</p> <p>Queen and four present bands</p> <p>Inrto to the more important classical compositions</p> <p>Discussion of aesthetical value of songs nominated for Grammy's 2001</p> <p>into to four other countries</p> <p>national anthems (i.e. use of language in singing)</p> <p>AC3 - (S + D - JV)</p> <p>SO3 + SO4</p> <p>Space and aliens</p> <p>Mysterious and unknown things</p> <p>Other dimensions</p>	<p>Learn accounting vocabulary</p> <p>Differentiate between a cash receipt and a cheque counterfiol</p> <p>Recording of information from cash receipt and counterfoil</p> <p>Recording entries in cash receipt journal and cash payments journal</p> <p>EMS2 (Entrepreneurship - AV)</p> <ul style="list-style-type: none"> - Understand how and what a manager should do - understand that a manager must be able to explain his/her decisions - are aware that a manager must take responsibility - know how to deal with information properly so that a business runs well, e.g. filing keyboarding, writing a business letter - compile a personal CV, role play job interviews - administration of money 	<p>Impact of pollution</p> <p>History of paper</p> <p>Different techniques in making of paper</p> <p>Steps in the production process (MS WORD)</p> <p>Planning of a production line (MS WORD)</p> <p>Printers</p> <p>Different types of paper + paper sizes (Excel)</p> <p>Making of paper</p> <p>Designing a company logo (MS Publisher)</p>	<p>Advertising - concepts + controversy</p> <p>My values + beliefs</p> <p>Difference in richness</p> <p>United we stand</p> <p>The four Rs: respect, rules, rights + responsibilities</p> <p>Treating people with respect - community rights + responsibilities</p> <p>Physical Education</p>	<p>Biology</p> <p>Soil and living organisms</p> <p>Types of soil</p> <p>Classification of soil</p> <p>Acidity/Alkalinity</p> <p>Dependance of plants + animals + soil</p> <p>Nutrients in soil</p> <p>Pollution</p> <p>Natural disasters</p> <p>Conservation</p> <p>Physical Science</p> <p>Density of substances</p> <p>Claculation of density</p> <p>Classification of elements metals + non-metals</p> <p>Difference in appearance</p> <p>Conduction of electricity</p> <p>Uses of metals + non-metals in space travel</p> <p>Mixturesa</p> <p>Difference between mixtures + components</p> <p>Separation</p> <p>Domestic and industrial uses of separation</p>	<p>Terminolog appliaable to planet earth</p> <p>Use of atlas</p> <p>Map-work</p> <p>Group-work</p> <p>research</p> <p>Integration of data and synthesizing</p> <p>Exploration of space</p> <p>Planetary</p> <p>Geography, the univers</p> <ul style="list-style-type: none"> - galaxies - the sun - planets - meteors - comets - satellites <p>The Earth</p> <ul style="list-style-type: none"> - shape + size - motion + rotation - revolution latitude + longitude <p>The moon</p> <ul style="list-style-type: none"> - phases - eclipse <p>Astronomy</p>

Diagram 6.2 Critical and Specific Outcomes and Theme for the term

6.6.2.2.4 Planning and co-ordination

Proactive planning and co-ordination of critical outcomes and specific outcomes and themes. This is essential as it does not just happen automatically, the instructional leader must make it happen.

Another decision taken at the staff meeting on planning was to conduct a weekly staff meeting to discuss various issues. Over the year, the meeting proved to be highly successful and motivating. An unexpected spin-off of these meetings was the staff development that took place. The agenda for each of these meetings varied from week to week. The only regular item on the agenda was academic input by the researcher which dealt with an aspect of OBE, or relevant facts about the structure and design of C2005. These were discussed among the staff who became quite knowledgeable about constructivism, Piaget's theories, different teaching strategies and the newer forms of assessment. The next item on the agenda was input by one of the staff (pre-warned, and a different learning area each week) on what had transpired in class the previous week, what aspects had gone particularly well, and what aspects had gone badly. Any projects, assignments, tests and so on, that the educator wished to bring, were shown and discussed by the staff. In this way staff shared ideas and problems about teaching strategies, classroom management and assessment. In this way many of the difficulties concerning assessment were sorted out immediately. The rest of the meeting was given over to general issues and routine school matters. An example of the type of academic input by the researcher is given in Diagram 6.3, and Diagram 6.4 is an example of an agenda from a typical meeting.

Diagram 6.3 Example of input by instructional leader

Critical Outcomes for the first term

No 1 Identify and solve problems in which responses display that responsible decisions using critical and creative thinking have been made.

No 9 Participating as a responsible citizen in the life of local, national and global communities

We are attempting to approach C2005 in its purist, academic form and this involves a paradigm shift - nothing is the same as it way before.

Please remember the following as we take up the challenge:

Integration (connective coherence) is one of the dominant design features of C2005 i.e. subjects (knowledge units) are now clustered to ensure coherence. This is called **lateral demarcation**. **Vertical demarcation** establishes which knowledge within each demarcated knowledge cluster must be taught and learned in what sequence and at what level of competence. This involves sequence, pace and progression - what competencies must be learnt before other competencies can be learnt. Traditionally vertical demarcation has been determined within disciplines. **Our challenge** is to ensure conceptual coherence or progression - how to ensure coherent linkage conceptually within each knowledge unit. Some knowledge areas (arts, culture, technology) require relatively little in the way of design to encourage learners to explore the connective relations of the field. Other learning areas need a stepwise ladder of concepts and skills that must be organised in a more sequential or phased way to facilitate cognitive access. What I am saying here is that **cumulative learning** must take place.

Please be sure that the learners are aware of the way in which **assessment** is going to take place and that they are fully aware of the assessment criteria.

We agreed that learners would work, on a daily basis, with an **A4 working file** with loose sheets. The contents of the **portfolio** would be specified by each learning area and these portfolios will be kept by the Form Teacher.

The input was used to generate discussion, but the hidden agenda on the part of the instructional leader was to make make staff knowledgeable and informed without lecturing as such. This worked as the staff became quite educated about aspects of OBE and C2005 over the year, and informed staff make better quality decisions, tending to put aside petty issues in favour of the big picture or the vision.

Diagram 6.4 Agenda for a typical staff meeting

Curriculum 2005 meeting - Thursday 23 August 2001

1. Welcome to EPS staff
 2. Report on Maths subject meeting (AV)
 3. Input by PF on value of music education in Grade 8
 4. Teacher portfolios (report by HSS staff)
 5. Pupil portfolios and profiles (guidance from EPS)
 6. Discussion of National Curriculum Statement
 7. A few rumbles
 8. End of term report
 9. Where to next?
 - Grade 9
 - Timetable
 - Allocation of periods (eg LO, EMS)
 - Tertiary language
 - 5th Grade 8 class
 - Staff implications
 - Quality of Assessment
 - New Grade 8 orientation evening
 - External Assessment Tasks (EAT)
 - Common Assessment Tasks (CAT)
 - 20/20 hindsight - what went wrong, what went right? We HAVE to get this right first time - there are NO second chances. Our Grade 9 pupils have to be prepared for the FET phase in order to make informed subject choices. It has been difficult being pioneers in these troublesome and confusing times. What I have tried to achieve this year is to share with you the little bit of knowledge I have and to focus us on the big picture and the main issues and let our professionalism and commitment take over from there.
-

The agenda is provided simply to show that staff have opportunities for input. This is valuable and must be done. Staff quickly buy into the programme if their opinions and advice are being sought. Problems are brought into the open, discussed, and no one needs to be ashamed or afraid that they have made

mistakes. This increases the bond between the staff. The researcher adopted the OBE policy of letting staff be active participants in the meetings, rather than adopting a top-down approach.

6.6.2.2.5 Develop staff potential

Invest time in staff development by spending time planning, preparing and facilitating staff meetings. The researcher cannot overemphasise how important it is to have consistent, hands-on leadership of this nature.

From the staff meetings it was immediately apparent that there was a problem with the number of projects that were being set. There was no initial co-ordination, and this, coupled with group work, meant that groups of learners had to meet after hours to work on projects. This caused many problems with getting groups together and having access to resources, the media and the Internet. This then, is a word of caution to instructional leaders - control projects. As a result, the staff drew up the following guide defining the following activities such as task, project, assignment, homework and classwork.

Diagram 6.5 Definition of learning activities

TASK: Is an activity given in class that promotes critical thinking/inductive teaching/co-operative learning strategies.

Discussing a poem/analysing, critically evaluating text 1 - 4 periods

PROJECT: Required work done over a period of time. Individually or in groups.

Discovery of new work develops specific skills.

*Research activity, interpretation of data/selection/evaluation/subjective opinion,
specified criteria*

ASSIGNMENT: Task given outside the class that allows the learner to "cement" knowledge learnt in the classroom/Practical application of tasks.

Allows for reflection and practice - this allows for assimilation - consolation of knowledge

HOMEWORK: Extra work on class work/individual activity dealt with or not finished

CLASS WORK: Is the information transmitted by the teacher/this incorporates tasks.

Employment of different teaching strategies to maximise student learning

These explanations were given to each of the learners and there was no further problem with project work. The researcher allocated projects to specific learning areas over the course of the terms.

The next step in the planning process was time-tabling. Secondary school time tabling is by nature complex, with educators being subject specialists rather than class educators, and learners all making different subject choices. The notional time as set out in the policy documents was studied, and this was reflected in the number of periods allocated to each learning area. From the matrix in diagram 6.2, it will be seen that English and Afrikaans make up LLC, Art, Drama and Music make up AC, Accounting and Entrepreneurship make up EMS and Computer Literacy and Design constitute Technology. The researcher's school has a 7 day cycle with 49 periods, and according to the notional time, the periods for each learning area were allocated as follows:

LLC (English)	- 8 periods
LLC (Afrikaans)	- 6 periods
MLMMS	- 7 periods
AC	- 5 periods
EMS	- 4 periods
Tech	- 5 periods
LO	- 5 periods
NS	- 5 periods
HSS	- 4 periods

These were then time-tabled in the usual way, allocating one double (80 mins.) period per cycle. This was found to be sufficient. The system fitted in easily with the normal Grade 9, 10, 11 and 12 time-table. Staff allocation, where possible, limited C2005 staff to the Grade 8 and 9 level.

Having now concluded the initial planning with regard to staff orientation, staff allocation, themes, critical outcomes and specific outcomes set for the term, and the matrix of work to be covered completed, the instructional leader now needs to guide staff in the design and development of learning programmes. This then is the next guideline:

6.6.2.2.6 Develop learning programmes

Careful guidance is required for the design and development of learning programmes.

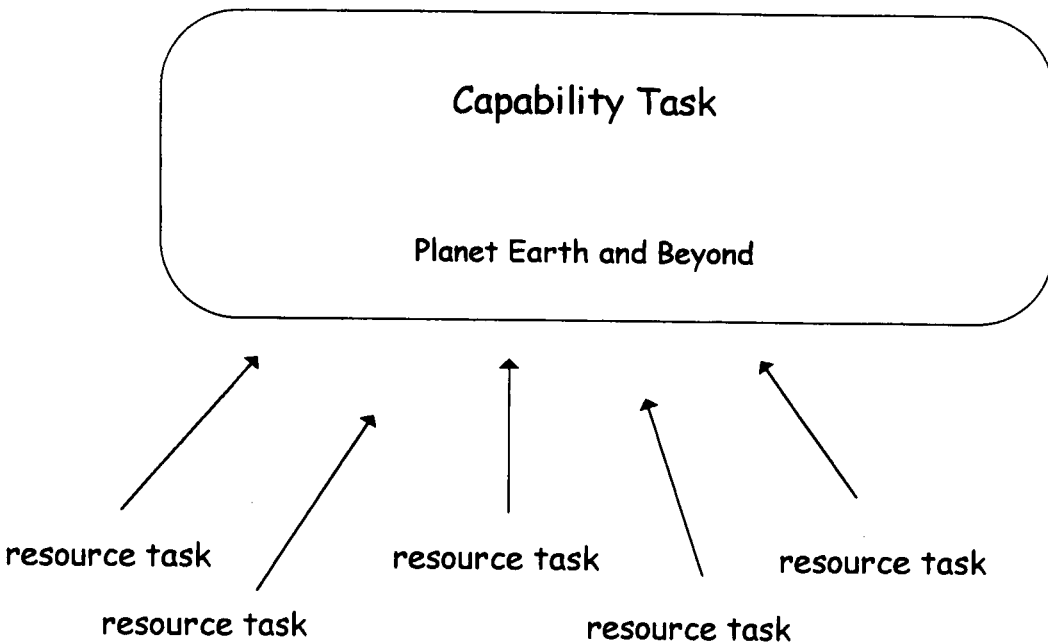
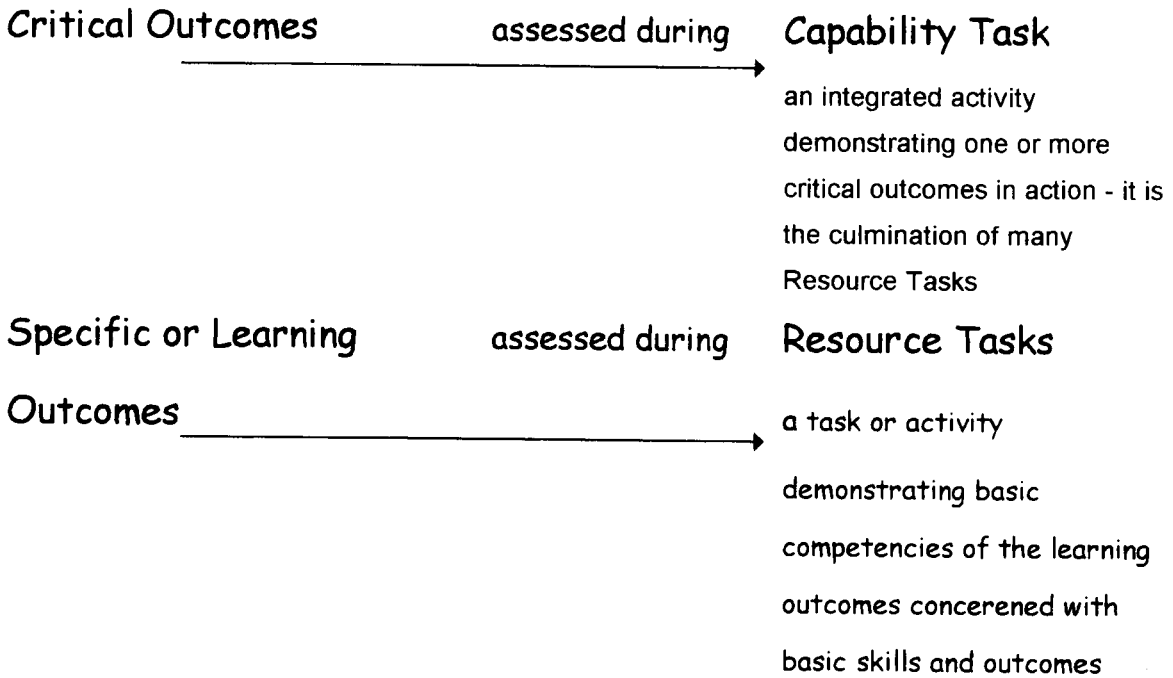
The staff kept in mind the need to address Spady's Fundamental Life Role Performances, which, in fact, summarise the critical outcomes of C2005. These are outlined below in Diagram 6.6:

In addition to the theme chosen for the first term, one of the Fundamental Life Role Performances was selected as a sub-theme, and the skills, values and attitudes dealing with this Life Role were dealt with during the delivery of the learning programme. From his research, the researcher knew that the old complex terminology of C2005 in developing learning programmes was going to change. The staff opted to go with these changes, which involved putting emphasis on writing detailed outcomes and setting clear, unambiguous criteria for assessment. Further changes involved adopting the new terms of Capability Tasks, which replaced Programme Organisers, and Resource Tasks, the new name for lesson

LIFE ROLES

FUNCTION AND CRITICAL OUTCOMES	SKILLS	KNOWLEDGE	ATTITUDES/VALUES	ACTIVITIES
COMMUNICATOR CO s 4 / 5	Speaking, writing, listening, reading, comprehending, using all types of symbols and pictures, translating, empathising, entertaining, presenting in all modes, performing in all forms, maintaining discourse	LLC content and context, Arts and culture content and context. MLMMS content and context Technology content and context	Empathy / respect / responding appropriately / enthusiasm / kindness/ politeness	Presentations, business plans, Arts and Culture performances - any activities to enhance communicative proficiency of learners
PROBLEM SOLVER CO s 1/7	Understanding of logic, using process skills, assessing, analysing, calculating, measuring, manipulating data, comparing, synthesising, applying knowledge, innovating, creating, adjusting paradigm	Particularly content and context of MLMMS, NS, TECH, EMS and HSS	Tenacity / perseverance / courage / positive approach / optimistic / belief in oneself	Investigation and solving of practical problems both in own community and in a global context
LEARNER/RESEARCHER CO s 4/6 Dev CO s 1/4	Accessing data of all types, assessing, evaluating questioning, analysing, comparing, note-taking synthesising, brainstorming, drafting, summarising, editing, using different language types, presentation of product	All learning areas applicable here	Acceptance of change / enquiring mind / perseverance / tenacity	Investigation of natural and other phenomena and the constant questioning of the answers supplied by research
MANAGER ENTREPRENEUR CO s 2/3 Dev CO 5	Organising, managing, planning, predicting, anticipating, analysing, comparing, assessing, evaluating, synthesising, innovating, creating	Particularly EMS, MLMMS, NS, Tech and LO	Risk taker / change bringer / logical / positive and optimistic / tenacity / perseverance / respect for people and the environment	Business enterprises linked to the world of the learner. Budgeting, scheduling in the context of community and work place
CONTRIBUTING CITIZEN CO 6 Dev CO 2 / 3	Valuing, understanding, acknowledging, praising, constructively criticising, empathising, sympathising, critically analysing, contributing, participating, appreciating, interpreting, affirming	All learning areas applicable here with special emphasis on the values inherent in LO and the knowledge derived from HSS	Empathy / sympathy / respect for people and the environment / love / moral values / belief in oneself / punctuality / consistency	Participation in community activities in a real life context. Learner is helped to develop own identity.

plans. The Capability Tasks focus on the critical outcomes and the Resource Tasks on the specific outcomes. The relationship between these is outlined below:



Planning starts with the critical outcomes. This, of course, is where everything in OBE starts and also ends. After studying the critical outcome and the theme carefully, the educator then decides what type of activity will best illustrate this

critical outcome. For example, if the critical outcome 'Identify and solve problems' is the one the educator wishes to demonstrate, a real-life problem from the community would be the best type of problem to solve. Thus the Capability Task could be the solving of a pollution problem in the schools' community. However, for the learners to be able to complete this task successfully, they would need a wide range of skills, knowledge, values and attitudes, which they would access through the learning areas. The CO is now broken up into smaller components or Resource Tasks (cf Spady's enabling outcomes). For example, to solve the problem of pollution, the learner would have to conduct experiments and surveys, do research, make calculations, write reports, know the history of the community and so on. These components make up the resource tasks.

The word *capability* implies competence in a real (authentic) situation. This would be applicable to a situation where the critical outcomes are the focus of the activity. The word *resource* implies that which is needed; resources in terms of skills, knowledge (with its content), attitudes and values. The Resource Task therefore supplies the basic needs for the development of the Capability Task. In terms of time, integration would take up 15-20% of the total time available for the task (but would not be forced). The rest of the time would be spent on Resource Tasks. A balance is thus obtained between integration and learning area basics. (The researcher acknowledges the input from the FSDE for this example).

When setting critical outcome and Capability Tasks, instructional leaders can follow the formula of attaching the Capability Task to the critical outcome. For example, from the matrix in Diagram 6.2, critical outcome 4 would thus read:

'CO 4 Collect, analyse and critically evaluate information about Planet Earth.'

This will help instructional leaders and staff to maintain focus while setting up and delivering learning programmes.

In order to record learners' progress over a period of time, which is gathering assessment data in a structured way on a regular basis, instructional leaders should have staff set up their criteria for assessment in advance, and set out a spreadsheet similar to Diagram 6.7, shown below. This is done to keep a record of the learners' progress

Diagram 6.7 Learners' progress report

		KNOWLEDGE	Test 1	Test 2	Dynamic and static load	Functions of structures	Identify diff. types of structures	What is force?	Different types of force	Explain uses of steel, concrete and reinforced concrete	Understand the purpose of different designs for beams	Know how to make a structure more stable	Work through the solution finding process
AMBROSIO	ANA-MARIA												
AMM	ALYSSIA												
ATHANASOPOULOS	MARIA												
BASSON	TANYA												
BELL	LEEANN												
BISSET	ROCHELLE												
BLAKE	KATHRYN												
BLUMER	NADIA												
BOUWER	LEZANNE												

It is important for the staff to understand that teaching, learning and assessment go hand-in-hand in OBE. Assessment criteria are set clearly and unambiguously and made known to the learners in advance. Assessment in OBE is open and transparent. It takes place continuously and is formative; it informs teaching and learning. The spreadsheet allows educators to move around the class and allocate symbols or grades quickly and easily. Remember, not every aspect of work is marked in terms of percentages. Symbols such as A, B, P or N or rating scale scores, (for example 1,2 3,4 or 5) are also used. Only the knowledge component in the first column has marks entered as percentages. As a guide, the researcher gave the following advice: Norm-referencing i.e. tests marked as a percentage, normal marks etc. has a definite place in OBE and C2005. 75% should be allocated as continuous

assessment and 25% as a formal, summative examination. This is the next tip for instructional leaders:

6.6.2.2.7 Develop quality assessment

Assessment is continuous, formative and criterion-referenced.

The final step was to design a report that combined the elements of both norm- and criterion referencing. This was to satisfy the demands of the parents, to exercise some form of quality control and to meet the need to know, for Prizegiving Night, who came first in class or in which subject. This portion of the report is called the Knowledge Component and is not averaged for the 8 learning areas. In this way, norm-referencing is aligned with OBE philosophy.

The rest of the report details work covered during the term (see diagram 6.1) and is scored on a 5 point rating scale. The report has found favour with parents in that they know what their children have done over a term and where the weak areas are. The knowledge component gives an indication of progress in tests, the rating scale gives an idea of skills, values and attitudes. An example of a portion of such a reporting form is given in Diagram 6.8

Diagram 6.8 Example of portion of Learner Report

Learner report

June 2001

Name..... Grade.....

This different reporting system is in line with our new Curriculum 2005 (outcomes-based) approach. You will now have a better idea of the skills, values and attitudes your daughter is developing. These reports assess particular skills, varied assignments throughout the

term as well as formal tests. Each of our girls is a special, unique individual who deserves praise where due and loads of positive encouragement. Curriculum 2005 lists 12 Critical Outcomes, the two chosen for the term were:

- Collect, analyse organise and critically evaluate information
- Use science and technology critically, showing responsibility towards the environment and health of others

Our theme for the term was

Planet Earth and Beyond

Use the following as an explanation of the rating scale used for each learning area:

- 5 Excellent standards (beyond achieved)
- 4 Very good standards (achieved)
- 3 Good standards (achieved)
- 2 Some progress but not up to standard (partially achieved)
- 1 Struggling, having difficulties (not achieved)

Arts and Culture

Art (Mrs van Niekerk)					
Understanding the culture, technique and skills used in Bushmen art.	1	2	3	4	5
Applying the above knowledge to their own art work	1	2	3	4	5
Knowledge component _____%					
Singing (Mr Ferreira)					
Introduction to classical composers and their best known compositions	1	2	3	4	5
Drama (Mr Viljoen)					
Developing personal expression and interpretation through poetry	1	2	3	4	5

Language, Literacy and Communication

English (Miss van der Vyver & Miss Watson)					
Creative exercises: creating a poster	1	2	3	4	5
Language exercises: recognising topic sentences					
writing paragraphs: direct and indirect speech	1	2	3	4	5
Word building exercises: Vocabulary test	1	2	3	4	5
Oral exercises: Debate	1	2	3	4	5
Knowledge component _____%					
Afrikaans (Miss Vermaak)					
Creative writing: Using ideas and opinions to produce sentences and paragraphs	1	2	3	4	5
Language exercises: application of singular, plural, diminutives, tenses and active and passive voices in context	1	2	3	4	5
Oral exercises: using communication strategies in story telling	1	2	3	4	5
Knowledge component _____%					
French (Miss van der Vyver)					
Researching French topic and executing project	1	2	3	4	5

Technology (Mrs Musgrave, Mr Paine)

Conduct an Internet search using different search methods	1	2	3	4	5
Identifying needs and wants and using technology to meet these.	1	2	3	4	5
Understanding the impact of pollution on society and the use of technology in combatting this	1	2	3	4	5
Understanding the steps of the design process	1	2	3	4	5
Non-verbal and technological communication	1	2	3	4	5
Knowledge component _____%					

Comment.....

Headmaster.....

Form Teacher.....

These guidelines are summarised as follows:

Motivate staff: Motivate staff and involve them in decision making at all levels.

Acknowledge staff input: Careful staff allocation is required. Listen to your staff, they are the ones who are going to make or break the programme.

Common sense: Instructional leaders should let common sense prevail and should keep things simple. This common sense is obviously grounded in up-to-date knowledge of the latest policy.

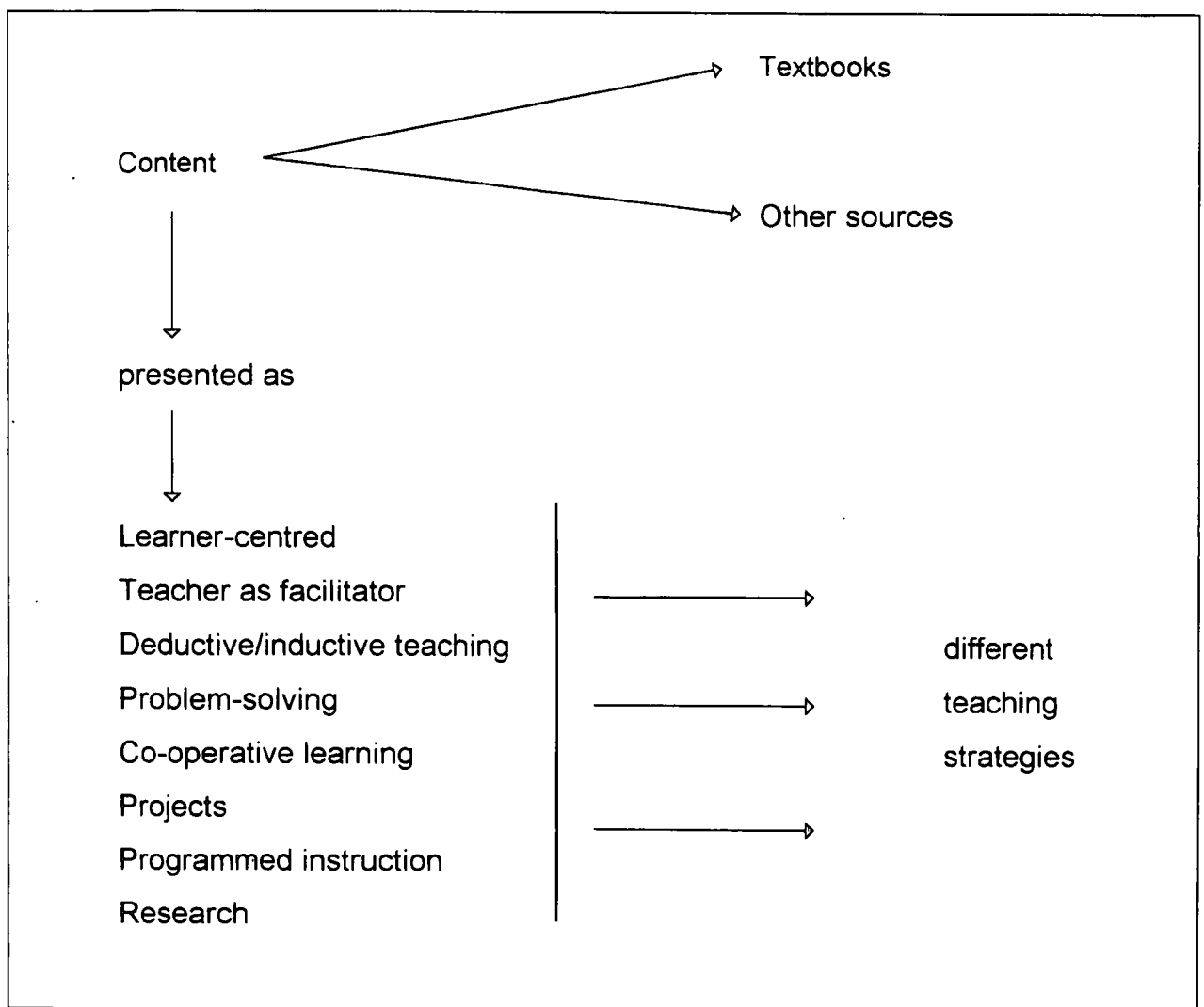
Planning and co-ordination: Proactive planning and co-ordination of critical outcomes and specific outcomes and themes. This is essential as it does not just happen automatically, the instructional leader must make it happen.

Develop staff potential: Invest time in staff development by spending time planning, preparing and facilitating staff meetings. The researcher cannot over-emphasise how important it is to have consistent, hands-on leadership of this nature.

Develop learning programmes: Careful guidance is required for the design and development of learning programmes.

Develop quality assessment: Assessment is continuous, formative and criterion-referenced.

Finally, the researcher, as an instructional leader, offers the following summary of his approach to instructional leadership regarding C2005. The diagram below helps to keep in focus the holistic picture. Essentially, content from textbooks and other sources, is selected and compiled into worksheets and is presented using different teaching strategies. These different teaching strategies are all outcome-based in one way or another and learner performance of the outcome of a learning programme is assessed using continuous and formative assessment.

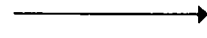


Presented in an outcomes-based way, which is:

Learner-centred

Activity-based

Newer forms of assessment



Continuous and formative (75%)

not continuous testing



develops pupils/informs teaching



6.7 Summary

This chapter outlined the main objective of this study which was to determine the role of the instructional leader regarding C2005 and draw up a set of guidelines that will be of assistance to them. A synopsis of the research methods was given which included a description of the literature study and the qualitative research. A summary of the findings was discussed which compared the findings of the literature and the qualitative studies.

This study showed that the instructional leader, in a C2005 context, needs to address curriculum change, educator development and training, assessment, teaching strategies, mixed ability teaching, integration, the development of thinking skills and the provision of resources.

The conclusion is that instructional leadership needs to change in a C2005 environment. Recommendations for further research are made and recommendations, in the form of practical guidelines, are detailed for instructional leaders.

Appendix

Interviews

The interview question posed was:

“How do you see the role of the Instructional Leader at (high) school level with regard to Curriculum 2005?”.

The following words were used as point of departure to guide the interview:

- Curriculum.
- Teacher development and training.
- Teaching strategies.
- Assessment.
- Resources.
- The role of the instructional leader.

Summary

This study is about instructional leadership regarding C2005. In order to conduct the research a study had to be made of both OBE and C2005 to determine the influence of OBE on the design and structure of C2005 and what influence C2005 had on school organisation.

The introduction of C2005 with its outcomes-based approach, has been the subject of intense debate since 1990. The changing political landscape in South Africa brought significant changes to education. The old curricula were abandoned in favour of C2005 after the democratic elections in 1994. The new political dispensation based on the principles of human rights and the removal of discrimination on the grounds of race, sex and religion means that education had to change and play its part in preparing learners to be responsible citizens that would fit into our democratic society.

C2005 differs radically from the traditional, input-based approach to education by changing to an outcomes-based approach. This will cause a change in the role of the teacher from a transferor of information to a facilitator and director of knowledge, and a change in the role of the learner from a passive receiver of information to an active participant in the learning process. Changes will also be necessary in the way the school is structured and therefore the delivery of the curriculum at school level becomes crucial.

Great demands are placed on learners today to increase their store of knowledge and to develop the necessary skills, values and attitudes that will equip them for responsible citizenship. It follows that the school plays a part in equipping learners for the role they are going to play in society and in facing the challenges of the future where the application of knowledge and the use of skills will be of paramount importance. An attitude of life-long learning and

critical and creative thinking are required and it is the responsibility of the school to inculcate these in the learners in their care.

This research commenced with a study of OBE and the results of this showed that constructivism, Piaget's theory of cognitive development and mastery learning had influences on C2005. Learning is based on outcomes rather than inputs. Attitudes become important, need to be assessed and traditional norm-referencing is replaced with criterion-referencing. C2005 caused changes in school organisation, mainly with regard to integration of traditional subjects into learning areas, the need to create a learner-centred environment and the introduction of continuous, formative assessment. The study into instructional leadership showed that the responsibilities include the management of change, staff development, a knowledge of teaching strategies in a C2005 context, effective communication, being available as an instructional resource, being a visible presence, providing resources and the supervision and evaluation of instruction.

A review of both the literature and the qualitative study of this research project clearly shows that the role of the instructional leader has to change in a C2005 environment. The demands are greater than before because a great deal of staff development, support and motivation is necessary for the effective implementation and maintenance of C2005 into high schools.

It is the responsibility of the instructional leader of the school to acquire knowledge and develop skills that will address these issues, and to set up the necessary procedures and programmes that will support these changes. The role of the instructional leader is to help maintain a teaching staff that can provide the best opportunities for teaching and learning. The instructional leader works with teachers to develop their professionalism and enable them to create a learning environment conducive to quality teaching and learning.

Guidelines for effective instructional leadership conclude the study.

Opsomming

Hierdie studie handel oor onderrigleierskap teen die agtergrond van Kurrikulum 2005 (K2005). Om die navorsing oor hierdie onderwerp te doen, moes Uitkomsgerigte Onderwys (UGO) en K2005 albei ondersoek word om die invloed van UGO op die ontwerp en struktuur van K2005 vas te stel en om die uitwerking wat die nuwe kurrikulum op skoolorganisasie gehad het, te bepaal.

Die instelling van K2005 met sy uitkomsgerigte benadering was sedert 1990 die onderwerp van lewendige debatvoering. Die veranderende politieke toneel in Suid-Afrika het betekenisvolle veranderinge in die onderwys meegebring. Na die demokratiese verkiesing in 1994 is die ou kurrikulums laat vaar ten gunste van K2005. Die verandering na die nuwe stelsel het 'n paradigmaskuif vereis by leerkragte wat die kurrikulum moet toepas, asook by onderrigleiers wat die toepassing van die nuwe kurrikulum by hoërskole bestuur. In die lig hiervan is besluit om die rol van die onderrigleier in die toepassing van Kurrikulum 2005 na te vors. Dit het 'n ondersoek na UGO en sy invloed op K2005 genoodsaak, asook die implikasies wat dit vir die rol van die onderrigleier ingehou het. Die navorsing is gedoen deur middel van literatuurstudie en 'n kwalitatiewe studie.

Die literatuurstudie wat gedoen is, is op sekere aspekte toegespits. Dit het die volgende ingesluit: 'n studie van UGO en die invloed daarvan op die ontwerp en struktuur van K2005, 'n studie van die Suid-Afrikaanse Kwalifikasieowerheid (SAKO), die Nasionale Kwalifikasieraamwerk (NKR) en die ontwerp van K2005, asook 'n studie van die rol van die onderrigleier en hoe K2005 hierdie rol verander het.

Die studie begin met 'n stelling van die probleem, stippel die doelwit uit en formuleer die navorsingsvrae. 'n Bondige ondersoek na die struktuur van die ou Suid-Afrikaanse onderwysstelsel en die gebeure wat tot die instelling van die nuwe kurrikulum gelei het, is gedoen voordat UGO bestudeer is. Die uitslag

toon dat konstruktiewisme, Piaget se teorie van kognitiewe ontwikkeling en die aanleer van vaardighede 'n invloed op K2005 gehad het. Leer is eerder op uitkomst as op insette gegrond. Denkwyses het belangrik geword en moet geassesseer word. Tradisionele normverwysings is vervang met kriteriumverwysings. K2005 het veranderings in skoolorganisasie veroorsaak, veral met betrekking tot die inskakeling van tradisionele vakke in leerareas, die noodsaak om 'n leerdergesentreerde omgewing te skep en die instelling van voortgesette formatiewe assessering. Die bestudering van onderrigleierskap het aangetoon dat verantwoordelikhede van die onderrigleier die volgende insluit: die bestuur van verandering, personeelontwikkeling en 'n kennis van onderrigstrategieë in 'n K2005-verband. Hy moet doeltreffende kommunikasie verseker, as opleidingsbron beskikbaar wees en 'n sigbare teenwoordigheid handhaaf. Voorsiening van hulpmiddels en die toesig en evaluering van onderrig word ook van die onderrigleier verwag.

Die kwalitatiewe studie is uitgevoer met ses proefpersone, van wie vyf opvoedkundiges aan universiteite en een 'n kurrikulumontwikkelaar van die provinsiale owerheid is. Hierdie kwalitatiewe studie het verskeie terreine van verantwoordelikheid vir die onderrigleier uitgewys. Dit sluit in die bestuur van die paradigmaskiuf, kurrikulumverandering en kurrikulumimplementering, die skepping van 'n leerdergesentreerde omgewing, die bestuur van menslike hulpbronne, personeelontwikkeling, onderrigstrategieë in 'n K2005-omgewing, die verskaffing van hulpmiddels en die hantering van finansiële implikasies, doeltreffende kommunikasie, onderrighulpmiddels, die handhawing van 'n sigbare teenwoordigheid, toesig en assessering van onderrig en die toepassing van gehaltebeheer.

Die resultate van die literatuurstudie en die kwalitatiewe studie is vertolk en saamgevoeg en die veranderende rol van die onderrigleier teen die agtergrond van UGO en K2005 is bepaal.

Gegrono op hierdie vertolking is tot die slotsom gekom dat die rol van die onderrigleier in 'n K2005-omgewing kundige, volgehoue en doelgerigte leierskap vereis. Uit hierdie gevolgtrekkings word 'n aantal aanbevelings en riglyne vir onderrigleiers oor die bestuur van K2005 gemaak.

Key words

Education

Instructional leadership

Outcomes-based education

Curriculum 2005

Curriculum

Implementation

Assessment

General education and Training

Secondary school

Qualitative

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