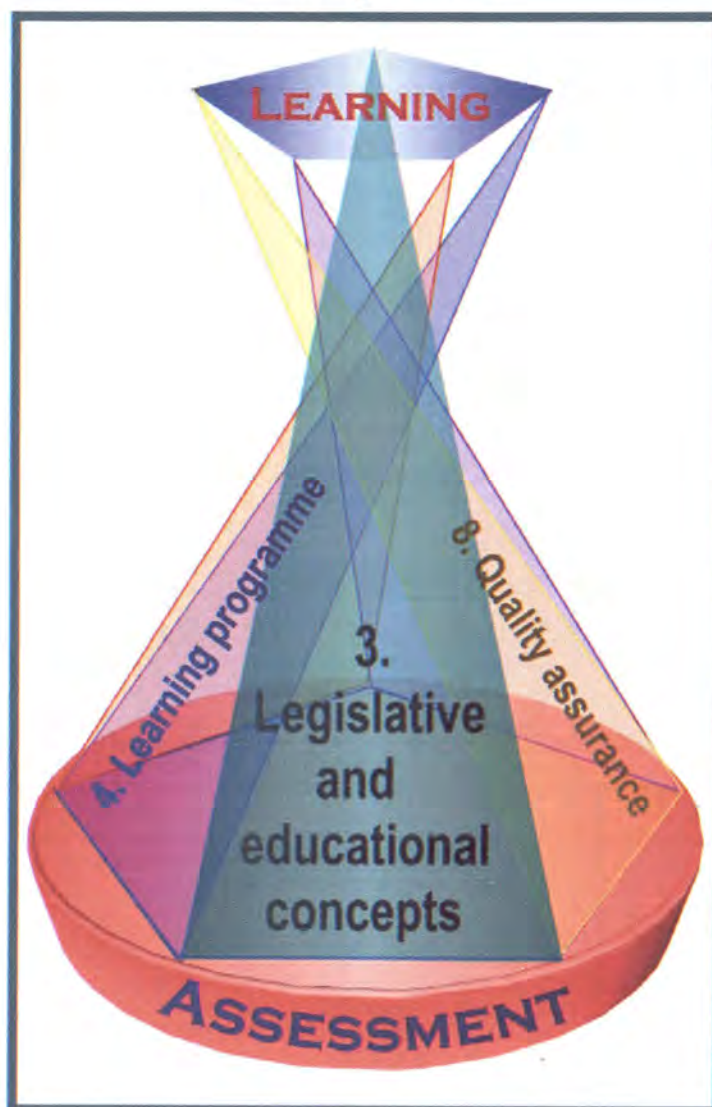


"I keep the subject of my inquiry constantly before me, and wait until the first dawning opens gradually, by little and little, into a full and clear light."

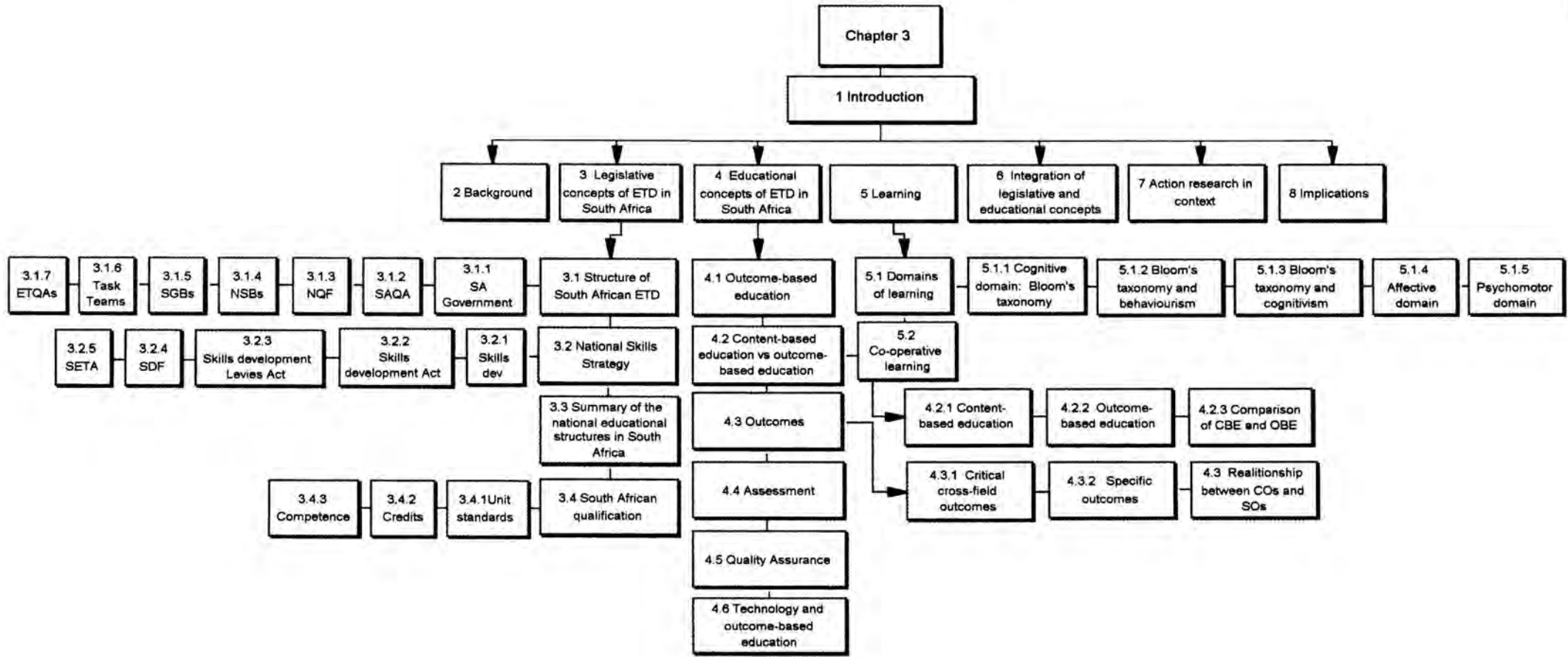
(Isaac Newton 1642 - 1727)

Chapter 3



If I keep the subject of my inquiry (assessment of learning) constantly before me, the first dawning that opens gradually and little by little until a full and clear light, is that all learning is embedded within a legislative framework and an educational philosophy as determined by governmental policy and present learning theories. These are the guidelines of the learning programme [Chapter 4], the facilitation of learning [Chapter 5], the portfolio of evidence [Chapter 6] and the quality assurance [Chapter 8]. All of these contribute equally to the valid and reliable calibration of assessment of learning in the outcome-based learning paradigm [Chapter 8].

The graphic is dynamic and each plane facing the front indicates the present chapter with the adjacent chapters according to the original graphic in the prologue.



CHAPTER 3

Legislative framework and educational concepts of education, training and development in South Africa

“The principal goal of education is to create men who are capable of doing new things, not simply of repeating what other generations have done – men who are creative, inventive and discoverers.” (Piaget, 2001)

1 Introduction

Chapter 1 introduced the rationale and Chapter 2 explained the action research for this study. Chapter 3 is a document analysis that presents a synopsis of the legislative policy as integrated with the educational philosophies in outcome-based learning in South Africa. It addresses the following sub-question of the study:

What are the implications of the legislative and the educational concepts regarding assessment in outcome-based learning in South African education?

2 Background

Olivier (2000:ii) states that “(T)he success of the outcomes-based learning system depends mainly on how well it is understood, developed, implemented and how education and training standards are maintained”. Pithouse (2001:155) elaborates when she refers to an in-service training workshop where the “... ideological issues underpinning C2005 were rapidly dismissed early in the programme” and the “... historical background to the changes in curriculum policy was mentioned in an equally cursory manner”. She is supported by statements of similar frustrated educators that regard “in-service workshops often of a very low standard because trainers have little or no knowledge” (Beeld, 30 July 2002). Comments like these necessitate the urgency to know and understand the changes in South African education, training and development that the author represents by the analogy of a tree:

- The roots of the tree (the legislative framework and educational concepts)
- The food for the tree (the evidence of learning and the portfolio) and
- The fruit of the tree (assessment of learning and quality assurance on assessment)

The tree of South African education, training and development will not grow and bear fruit without the roots and food. This document analysis and literature review focus on the legislative framework of the South African education, training and development in context of the philosophies of the learning theories, delivery systems and assessment to enhance learning.

South African education, training and development are in a developmental process where transformation is supported by legislative structures and frameworks as well as educational principles (Olivier, 2000:4). This system of education was brought about by a variety of worldviews and experiences of the different international educational systems as represented in Table 19 (Du Pré, 2000:38; HSRC, 1995:162).

Table 19: Referencing international educational systems

Country	Reference
Australia (1990) Australian Qualifications Framework	[Online] Available URL http://www.curriculum.edu.au/aqf.htm
German Association for Certification of Management Systems	[Online] Available URL http://www.dqs.co.za
National Institute of Standards and Technology (USA)	[Online] Available URL http://www.quality.nist.gov
The Netherlands	[Online] Available URL http://www.hea.ie/program/naric.htm
CONOCER of Mexico (1995):	[Online] Available URL http://www.ilo.org/
New Zealand New Zealand Qualifications Authority	[Online] Available URL http://www.nzqa.govt.nz
South Africa South African Qualifications Authority	[Online] Available URL http://www.saqa.org.za
Scottish Credit and Qualifications Framework	[Online] Available URL http://www.ice.org.uk/ice/joining/nvqsvqindex.asp
United Kingdom (1986) National Vocational Qualifications (NVQ) General National Vocational Qualifications (GNVQ)	[Online] Available URL http://www.lancs.ac.uk/users/cetad/nvqtext.htm
United States of America Alverno College Florida's state-wide numbering system for educational courses Milwaukee Wisconsin documents on abilities, course descriptions and level descriptors American College Testing document (ACT): Performing a National Job Analysis Study Secretaries' Commission on Achieving Necessary Skills (SCANS) American Society for Training Development (ASTD)	[Online] Available URL: http://asq.org [Online] Available URL: http://asq.org [Online] Available URL: http://asq.org [Online] Available URL http://www.uwsa.edu/ttt/articles/schwanke.htm [Online] Available URL http://www.csuchico.edu/test/actpep.html [Online] Available URL http://www.3dresearch.com/hoge/reinventing2.html [Online] Available URL http://www.astdcascadia.org/
Victorian Curriculum and Assessment Authority Developing high quality courses and curriculum assessment products and services	[Online] Available URL http://www.vcaa.vic.edu.au/board/boardinf.htm

Although South Africa borrowed ideas internationally, no policy can be imported and implemented directly. South Africans are in the favourable position of being able to take from international experiences and construct a unique system to fit local contexts and conditions (HSRC, 1995:38). By doing this, South African policy makers could avoid problems to those that existed such as in the United States of America, with the fragmentation of outcome-based education on a micro-level in the different institutions, schools and districts without a macro-level national framework (Spady, 1994:101,106).

The impact of outcome-based education is more far-reaching than we expected and will include a dynamic transformation in all education and training institutions in South Africa. The scope of this study is neither to elaborate on a comparison of education systems worldwide nor to indicate how the South African system evolved from these. It serves as an indicator of what is needed for the average South African to know to understand and accept the system.

South Africa is now playing an active role, not only in the attempt to synchronise qualifications within the Southern African Developing Countries (SADC), but also to direct the attention of UNESCO towards contributing to basic education and vocational education and training needs (Du Pré 2000:38). The present South African education system is internationally regarded as without equivalent and without doubt in the forefront and one of the best in the world (Du Pré, 2000:38).

This South African education system will be discussed in this chapter within the context of the philosophies of the relevant learning theories. Any South African needs this minimum knowledge to understand the implications of the legislative concepts. The construction evolved from the six years of experience in the action research.

3 The legislative concepts of education, training and development in South Africa

According to Du Pré (2000:1) the restructuring of education, training and development in South Africa takes the interest of the learner into account and addresses questions like:

- “What do we do?”
- “Why do we do it?”
- “What are the educational outcomes we plan to achieve?”

To understand the context of this study it is necessary to understand the legislative framework and educational concepts in South African education, training and development. The legislative framework, as the roots of the tree, is discussed in this section.

3.1 The structure of South African education, training and development

South African education was in need of the following (Du Pré, 2000:2; HSRC 1995:5):

- An equitable system of education, training and development which serves all South Africans well under all circumstances i.e. in formal and informal (work place) education, training and development
- Improvement of the quality of education, training and development
- Integrated education, training and development (academic and occupational) into structured qualifications that will support life-long learning

In the last quarter of 1994 an inter-ministerial workgroup, with representation from major constituencies i.e. the Department of Labour, the National Training Board, Organised Business and Organised Labour, produced draft legislation for the creation of the South African Qualifications Authority (SAQA) and the National Qualifications Framework (NQF) (Du Pré, 2000:v,10; HSRC, 1995:8).

The South African Qualifications Authority (SAQA) Act No. 58 was promulgated in 1995 and in principle provides for the unification of education, training and development between the stakeholders, i.e. the state, employers, labour and providers, within the following three statutory bodies as well as a philosophical framework (NQF) (Du Pré, 2000:v; SAQA, 1995).

South African Qualifications Authority (SAQA)

The coordinating statutory body that ensures:

- The National Qualifications Framework is developed, implemented and maintained
- The National Standards Bodies and Education and Training Quality Authorities are competent to perform their respective tasks
- They monitor the dynamic process

National Standards Bodies (NSBs) and Standard Generating Bodies (SGBs)

These are coordinating statutory bodies that:

- Recommend qualifications for accreditation by SAQA
- Set unit standards

Education and Training Qualification Authorities (ETQAs)

These are statutory bodies that:

- Ensure that assessment is carried out in accordance with the standards
- Monitor assessors
- Monitor training providers of education, training and development

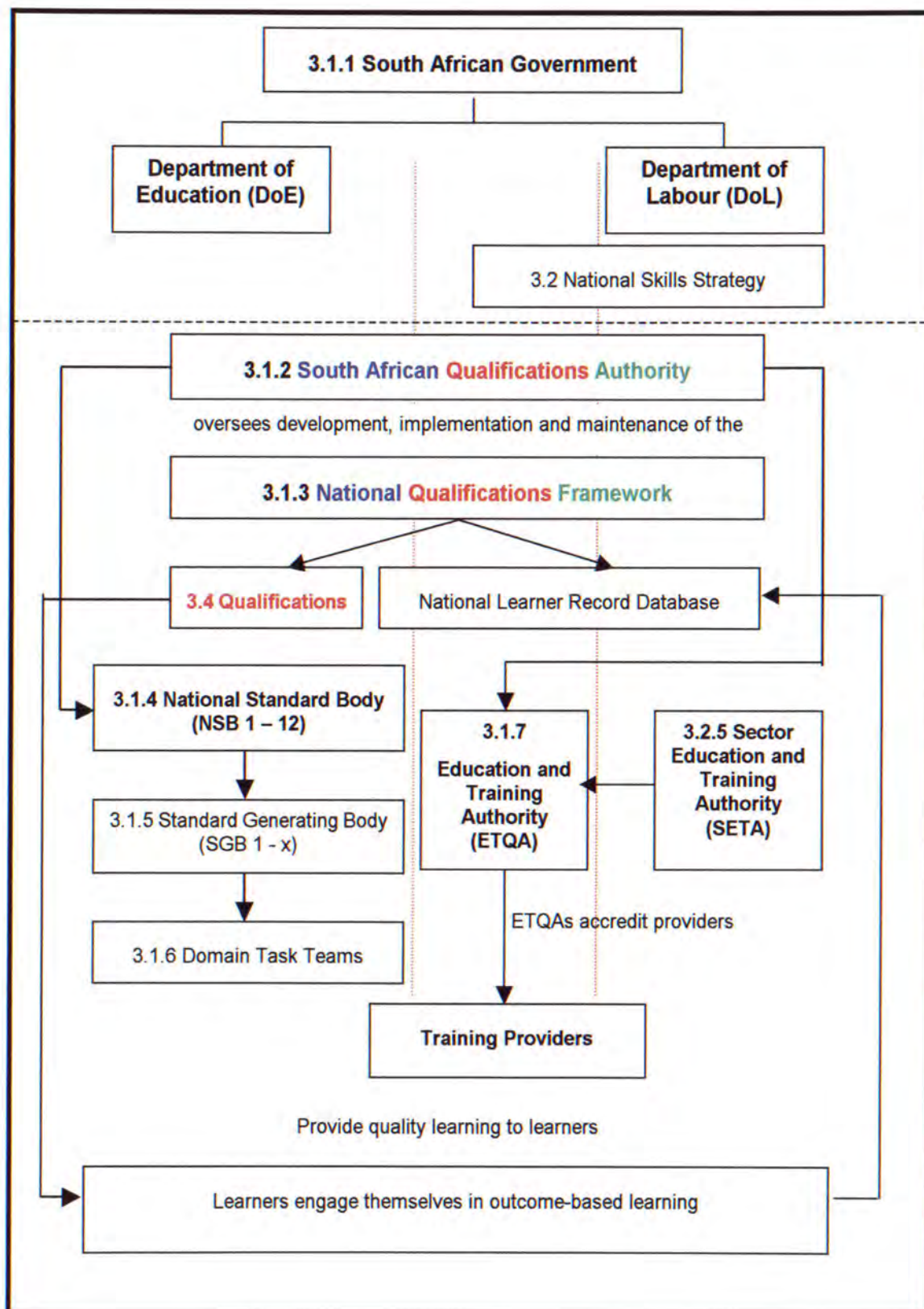
National Qualifications Framework (NQF)

This is the facilitating mechanism or philosophical framework for:

- Achieving a coherent system of education and training
- Registering unit standards and qualifications

The coherent structure of South African education, training and development can be represented in Figure 2 (Norms and Standards for Teacher Education, Training and Development, 1997). These structures will be discussed in detail in the following sections.

Figure 2: The coherent structure of South African education, training and development



These structures will be discussed in detail in the following sections, numbered as in the Figure 2.

3.1.1 South African Government

Two significant government departments involved in the structuring and standardisation of qualifications in South Africa are the Department of Education (DoE) and the Department of Labour (DoL). The DoE oversees the education and the DoL oversees the training and development in South Africa.

3.1.2 The South African Qualifications Authority (SAQA)

The South African Qualifications Authority (SAQA) was established in accordance with the South African Qualifications Authority (SAQA) Act No 58 of 1995 and focuses on structuring a truly national learning system, covering education, training and development from the most basic to the most advanced levels in such a way that South Africa can become an international economic role-player (Du Pré, 2000:3; SAQA, 1995; SAQA, 1997:4; SAQA, 2002).

SAQA is the independent national statutory and legislative body consisting of not less than twenty-two and not more than thirty members appointed jointly by, and reporting to, the Minister of Education (DoE) and the Minister of Labour (DoL) (HSRC, 1995:3,30; Olivier, 2000:8; SAQA, 1995). These members are representative of national stakeholders, i.e. government, business, trade unions, education and training providers, critical interest groups, e.g. the disabled, youth, women, and community groups (HSRC, 1995:30; Lancaster, 2001:90).

3.1.2.1 The mission of the South African Qualifications Authority (SAQA)

SAQA has formulated its mission as follows (SAQA, 1995):

“To ensure the development and implementation of a National Qualifications Framework which contributes to the full development of each learner and to the social and economic development of a nation at large.”

3.1.2.2 The objectives of the South African Qualifications Authority (SAQA)

The objectives of SAQA (HSRC, 1995:3,21; King, 1999:10; SAQA, 1995; SAQA, 1997:5; South Africa, 1997a) are as follows:

- To create an integrated national framework for learning achievements with defined levels, formats for unit standards and requirements for the registration of qualifications
- To facilitate access to, and mobility and progression within education, training and career paths
- To enhance the quality of education and training
- To accelerate the redress of past discrimination in education, training and employment opportunities
- To contribute to the full personal development of each learner and the social and economic development of the nation

3.1.2.3 The functions of the South African Qualifications Authority (SAQA)

The functions of SAQA (HSRC, 1995:133, 155; Meyer & Mokoetele, 2001:10; Norms and Standards for Teacher Education, Training and Development, 1997:35; Olivier, 2000:8; SAQA, 1995) are the following:

1. Oversee the **development** of the National Qualifications Framework and formulate and publish policies and criteria for:
 - a. Registration⁹ of statutory bodies responsible for establishing education and training standards or qualifications
 - b. Accreditation¹⁰ of statutory bodies responsible for monitoring and auditing achievements in terms of such standards or qualifications
2. Oversee the **implementation** of the National Qualifications Framework including the following:
 - a. The registration or accreditation of bodies referred to in 1a & 1b and the assignment of functions to them
 - b. The registration of national standards and qualifications
 - c. Steps to ensure compliance providing for accreditation
 - d. Steps to ensure that unit standards and registered qualifications are internationally comparable
3. Advise the Minister of Education on matters affecting the registration of standards and qualifications
4. Be responsible for financial control of the authority, which includes the National Standards Bodies, (NSBs), the Standard Generating Bodies (SGBs) and the Education Training Quality Authorities (ETAQs).

3.1.3 The National Qualifications Framework (NQF)

The National Qualifications Framework (NQF) introduced in 1995, is aimed at an inter-departmental, single, coherent and unified framework of outcome-based, quality assured standards and qualifications for the whole country. It is designed for South African needs and is fully consistent with comparable standards internationally (HSRC, 1995:6; SAQA, 1995; SAQA 1997:3; SAQA, 2002).

⁹ Registration:

- Statutory Bodies for establishing unit standards and qualifications are the National Standards Bodies [NSBs] and Standard Generating Bodies [SGBs] that are registered with SAQA for three years. These bodies will have to renew their registration with SAQA every three years (Norms and Standards for Teacher Education, Training and Development, 1997:35).

Unit Standards and qualifications are registered on the National Qualifications Framework (NQF)

¹⁰ Accreditation:

- Education and Training Authorities (ETQAs) and Sector Education and Training Authorities (SETAs) are accredited by SAQA
- Providers are accredited by ETAQs
- Assessors are accredited by ETQAs

The NQF is a matrix of unit standards and whole qualifications that are located by both level and field and aimed at transformation and quality education, training and development in South Africa (Mokhobo-Nomvete, 2000:7; Norms and Standard for Teacher Education, Training and Development, 1997:29).

Olivier (2000:4) and Meyer & Mokoale (2001:11) describe the NQF as a set of principles and guidelines by which records of learners' achievements will be registered to enable national recognition and international comparable acceptance of acquired skills and knowledge (qualifications), thereby ensuring an integrated system that encourages life-long learning. It furthermore promotes the following (HSRC, 1995:12):

- Learning is for a purpose
- Learning relates to competence
- Learning is a learner-centred approach
- Learning empowers the learner for a better job and living standards
- Learning involves skills such as communication, problem-solving, social interaction and learning how-to-learn, that are beyond subject specific skills

The NQF emphasis is on creating a culture of learning within flexible, efficient and accessible education, training and development through learning outcomes and competence, i.e. what learners *should know* and *can do* at the end of a course of learning and teaching (HSRC, 1995:6).

Olivier (2000) emphasises the importance of the NQF in coherence with structures like the Skills Development Plan (South Africa, 1998), as one of the best in the international arena.

3.1.3.1 The objectives of the National Qualifications Framework (NQF)

According to the South African Qualifications Act 98 of 1995 the objectives of the NQF are the following (Du Pré, 2000:11; HSRC, 1995:153; SAQA, 1995):

- To create an **integrated** national framework for **learning** achievements
- To facilitate **access** to, and **mobility** and **progression** within **education, training and career paths**
- To enhance the **quality** of education and training
- To accelerate the **redress** of past unfair discrimination in education, training and **employment opportunities**
- To contribute to the **full personal development** of each **learner** and the **social and economic development of the nation** at large

Simply stated this means an integrated framework for learning achievements, and to enhance access to, and mobility and quality within, education, training and development.

The NQF will be hosted in a database that contains the information of all SAQA accredited qualifications as well as of the learners who have completed an accredited qualification.

3.1.3.2 The purpose of the National Qualifications Framework (NQF)

The NQF will serve the following purposes (Du Pré, 2000:11; Olivier, 2000:11; SAQA, 1995; SAQA 1997:6):

- To promote life-long learning
- To develop integrated education, training and development
- To establish a record of learning for each learner in the National Learner Record Database (NLRD)
- To acknowledge the recognition of prior learning (RPL) gained outside formal institutions within the record of learning and register of qualifications
- To allow for flexible, portable credits and qualifications

This **integrated approach** promotes learning that rejects the rigid division between:

- Academic and applied knowledge
- Theory and practice
- Knowledge and skills

3.1.3.3 The principles of the National Qualifications Framework (NQF)

Table 20 lists the principles of the NQF as it emerged from an analysis of the education and training systems of foreign countries [Chapter 3 Table 19] with reference to the relevance and the vision of the quality education and training for South African education (Du Pé, 2000:13; HSRC, 1995:1-4,10; Meyer, 2001:272; Mokhobo-Nomvete, 2002:7; Olivier, 2000:12; SAQA, 1995).

Table 20: The principles of the National Qualifications Framework (NQF)

Principle	Definition
Access	Provide ease of entry to appropriate levels of education and training for all prospective learners in a way which facilitates <i>progression</i>
Articulation	Provide for learners, on successful completion of accredited prerequisites, to move between components of the delivery system
Credibility	Have national and international value and acceptance, i.e. for industry, service sectors and institutionalised providers of learning
Coherence	Adherence to principles within a consistent framework for moving within and through levels of qualifications at a national level
Flexibility	Allow for multiple pathways to the same learning ends; a facility of the qualifications system to meet the needs of learners, providers, industry and service sectors
Guidance of learners	Provide for the counselling of learners by special trained individuals who meet nationally recognised standards for educators and trainers
Integration	Form part of a system of human resource development which provides for the establishment of a unifying approach to integrate credits and qualifications for education and training
Legitimacy	Provide for the participation of all national stakeholders in the planning and co-ordination of standards and qualifications
Portability	Enable learners to transfer their credits or qualifications from one field and / or learning institution and / or employer to another
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, i.e. schools, colleges, training centres, etc.
Recognition of Prior Learning	Through assessment, give credit to learning which has already been acquired in different ways, e.g. through life experience
Relevance	Relevance of education and training means to achieve other ends and not to be pursued as ends in themselves
Standards	To be expressed in terms of a nationally agreed framework and internationally acceptable outcomes

3.1.3.4 The structure of the National Qualifications Framework (NQF)

The structure of the NQF is represented in Table 21 (Du Pré, 2000:12; King, 1999:9; Norms and Standards for Teacher Education, Training and Development, 1997:30; National Qualifications Framework, 1995; Olivier, 2000:10; SAQA, 2000).

Table 21: The structure of the National Qualifications Framework (NQF)

Structure National Qualifications Framework (NQF)				
Bands	NQF Level	Description		
Higher Education and Training (HET) ¹¹ 12 Fields of learning	Level 8	Doctorates and Further Research Degrees		
	Level 7	Higher Degrees		
	Level 6	First degrees and Higher Diplomas		
	Level 5	Diplomas and Occupational Certificates		
Further Education and Training (FET) 12 Fields of learning	Exit level 4 Further Education and Training Certificate NQF level 4 (FETC)			
	Level 4	Grade 12 (in formal education)-		
	Exit level 3 Further Education and Training Certificate NQF level 3 (FETC)			
	Level 3	Grade 11 (in formal education)		
	Exit level 2 Further Education and Training Certificate NQF level 2 (FETC)			
	Level 2	Grade 10 (in formal education)		
General Education and Training (GET) [Compulsory education] 8 Learning Areas	Exit level 1 General Education and Training Certificate NQF level 1 (GETC)			
	Level 1	Grade 7 - 9	Senior Phase 8 Learning Areas	ABET level 4
		Grade 4 – 6	Intermediate Phase 5 Learning Areas	ABET level 3
		Grade 1 - 3	Foundation Phase 3 Learning Areas	ABET level 2
		Grade 0	Early Childhood Development	ABET level 1

The General Education and Training Certificate (GETC) qualification Level 1 of the NQF can be obtained through formal education e.g. schools (urban / rural / farm / special / night, occupation / work place training), or by any other means of learning e.g. labour market schemes, upliftment programmes, community training programmes, non-governmental organisations [NGOs], churches, ABET¹² programmes, private providers, unions.

The Further Education and Training Certificate (FETC) qualifications Level 2, Level 3 and Level 4 of the NQF can be obtained at schools, colleges or comparable types of institutions for further education and training, e.g. senior secondary schools, technical colleges, NGOs, private providers, private education and training institutions, work place, private companies, community colleges, or by any other accredited means of learning.

¹¹ These qualifications have not been finally qualified at the time of this study

¹² Adult Basic Education and Training (ABET): aimed to educate all illiterate adults on a level 1 qualification of the NQF

The Higher Education and Training (HET) qualification Level 5 to 8 of the NQF will include occupational certificates, first degrees and higher diplomas, higher degrees, doctorates and further research degrees obtained at institutions that can provide higher education and training, e.g. universities, technikons, private education and training institutions, colleges for professional training [i.e. nursing colleges] (Du Pré, 2000:4, 15; Olivier, 2000:14).

All institutions¹³ will have to register with the Education and Training Quality Assurers (ETQAs) to be accredited as training providers for education and training.

The NQF therefore provides for the registration of unit standards and qualifications as well as learners' names who are accredited with a particular unit standard or qualification by SAQA.

3.1.3.5 Record of Learning

A record of learning will be established for every learner on the NQF in the NLRD [Chapter 3 section 2.1.3.2] and it outlines all the unit standards and qualifications that a learner has achieved by means of any delivery system. The record of learning will be updated as a learner earns more credits (Du Pré, 2000:32; Olivier, 2000:26).

3.1.3.6 Recognition of prior learning (RPL)

One of the principles of the NQF is to make provision for the accreditation of learning that has taken place either in a formal educational institution, informal situation, non-formal in-service training or work-place experience (HSRC, 1995:3; SAQA, 1997:16). There are four basic processes to consider in the recognition of prior learning (Mabaso, 2001:175).

- Identify what the learner knows and can do
- Compare what the learner knows and can do with the unit standards or qualification
- Assess the learner against the unit standards or qualification
- Give the learner credit for the applicable competence

3.1.4 National Standards Body (NSB)

SAQA registers National Standards Bodies (NSBs) that are national statutory and legislative bodies in the twelve learning fields. NSBs consist of thirty-six members that will be responsible for the registration of education and training standards and qualifications on the NQF in the twelve learning fields. The registration of a NSB expires after a period of three years after which the bodies will have to apply for re-registration with supporting documentation why registration should still be granted (Du Pré, 2000:27; HSRC, 1995:2,21; Meyer, 2001:275; Olivier, 2000:16; SAQA, 1997:11).

¹³ Institutions are regarded as accredited, e.g.:

- General Education and Training training providers
- Further Education and Training training providers
- Higher Education and Training training providers

The NSBs will be responsible for the following (Du Pré, 2000:19; HSRC, 1995:91,93,133; Norms and Standards for Teacher Education, Training and Development, 1997:35; Olivier, 2000:17; South Africa, 1997b):

- Define and recommend to SAQA the boundaries of the discrete field for which it is constituted
- Define and recommend to SAQA a framework of sub-fields to be used as a guide for the recognition and / or establishment of Standard Generating Bodies
- Ensure that Standard Generating Bodies meet the SAQA requirements to write, review and submit national standards and national qualifications for registration, i.e. they establish and oversee Standards Generating Bodies for sub-fields
- Make recommendations for registration of unit standards and national qualifications to SAQA
- Set moderating requirements and mechanisms to be applied across education and training quality assurance
- Consider portability of standards and qualifications, i.e. the combination of qualification through participation of different people from different contexts, e.g. higher education and training providers, professional bodies, employers, groups
- Consider the vertical articulation of standards and qualifications i.e. progression – from lower to higher levels of the NQF

Fields of learning and Sub-fields of learning

NSBs will determine the purpose, boundaries, linkage and impact of sub-fields within a field (Olivier, 2000:18). Table 22 represents the fields and sub-fields of learning that have been identified (Du Pré, 2000:19; HSRC, 1995:61,169; Norms and Standards for Teacher Education, Training and Development, 1997:30; Olivier, 2000:15; SAQA, 1997:8; South Africa, 1998a).

Table 22: NSBs, fields and sub-fields of learning

NSB	Field	Sub-fields
NSB 01	Agriculture and Nature Conservation	Agriculture (Agriculture, Forestry, Fisheries) Nature Conservation Horticulture
NSB 02	Culture and Arts	Visual Arts Performance Arts (Stage, Musical, etc.)
NSB 03	Business, Commerce and Management Studies	Financial Administration Commercial Practices Property Marketing Leadership, Management and Supervision
NSB 04	Communication Studies and Language	Communication Languages
NSB 05	Education, Training and Development	Training and Development Learners with Special Educational Needs Childhood Development Adult Basic Education and Training General Education and Training Further Education and Training Higher Education and Training
NSB 06	Manufacturing, Engineering and Technology	Design, Construction and Maintenance Production and Manufacturing Processes Mobile Equipment and Materials Handling Mining Computer Sciences and Information Technology
NSB 07	Human and Social Studies	Histories Geographic / Economic Individuals and Societies Religions Marketing
NSB 08	Law, Military Science and Security	Law Military Science and Security
NSB 09	Health Sciences and Social Services	Medicine and Health Sport and Recreation Food and Nutrition Fire and Safety
NSB 10	Physical, Mathematical, Computer and Life Sciences	Pure Mathematics Applied Mathematics
NSB 11	Services	Hospitality and Tourism Beauty Technologies Publishing and Book Binding Archiving and Information Storage Wholesale and Retail Product Manufacture
NSB 12	Physical Planning and Construction	

Although there may be an overlap in fields and sub-fields of learning, the unit standard or qualification and provider will only be identified by one field that represent the primary range.

3.1.5 Standards Generating Body (SGB)

Standards Generating Bodies (SGBs) are registered with the NSB by SAQA for a period of three years. SGBs have to develop the standards for the sub-fields in each field. SGBs are sub-ordinate to and established by NSBs. The functions of the SGBs are the following (Du Pré, 2000:20; Norms and Standards for Teacher Education, Training and Development, 1997:36; Olivier, 2000:18; SAQA, 1997:12):

- To generate standards and qualifications in accordance with SAQA requirements in identified sub-fields and levels of the NQF
- Update and review these standards
- To recommend unit standards and qualifications to the NSBs

SGBs will have to limit duplication of unit standards and qualifications across all fields of learning, consult with stakeholders, promote transferability of skills, accommodate changes in areas such as technology and focus on quality, effective and efficient provision of education and training by providers (Du Pré, 2000:21).

The registration of the SGB expires after a period of three years after which the bodies will have to apply for re-registration with supporting documentation why registration should still be granted (Du Pré, 2000:27; HSRC, 1995:2, 21; Meyer, 2001:275; Olivier, 2000:16; SAQA, 1997:11).

3.1.6 Domain Task Teams

The SGB consists of expertise stakeholders in a specific field of learning. Expert committees develop unit standards and qualifications within the organised structure of the sub-field that the SGB represents (Olivier, 2000:18). This ensures that all areas of learning will be covered within unit standards or national qualifications in South African education, training and development.

3.1.7 Education Training Quality Assurance Body (ETQA)¹⁴

SGBs will develop national unit standards and qualifications under supervision of the NSBs who will register these on the NQF. SAQA will accredit learners with these registered unit standards and qualifications if the learners are competent when they are assessed against the outcomes of the unit standards or qualification.

¹⁴ ETQA is used in the literature alternatively as Education Training Quality Assurers, Education Training Quality Assurance Body and Education Training Quality Authority

The objectives of the Education Training Quality Assurance Bodies (ETQAs) will be the following (Du Pré, 2000:22; HSRC, 1995:2,22,133,142; Meyer, 2001:275; Norms and Standards for Teacher Education, Training and Development, 1997:xii,36; Olivier, 2000:13,19; SAQA, 1997:13; SAQA: Discussion Document for Public Comment, 2000; South Africa, 1998b):

- Responsibility to implement the system of qualifications
- Monitor the quality for credibility of standards
- Audit achievements in terms of the national standards and qualifications

In order to achieve these objectives the ETQAs will have to implement the following:

- **Register assessors** and keep a register of assessors to ensure credibility of summative assessments in the NQF system, i.e. fairness, validity, reliability and practicality
- **Accredit training providers** of education and training, including the quality management system
- **Facilitate moderation** by verifying assessment, moderate multiple examining authorities for fair and consistent assessment, accreditation of training providers for assessment
- **Be accountable** through SAQA to the Minister of Education, the Minister of Labour and parliament for the quality assurance of standards of learning achievement, i.e. ensuring that the assessed outcomes meet the required standards
- Be accountable for the monitoring and auditing of **quality of learning achievements** for registration of assessors, accreditation of training providers and a complete quality management system
- **Certify** learners, maintain an acceptable database of learners' qualifications on the NQF (NLRD), recommend unit standards to SGBs and qualifications to NSBs as appropriate

ETQAs will submit the following information to SAQA on an annual basis (Meyer, 2001:275):

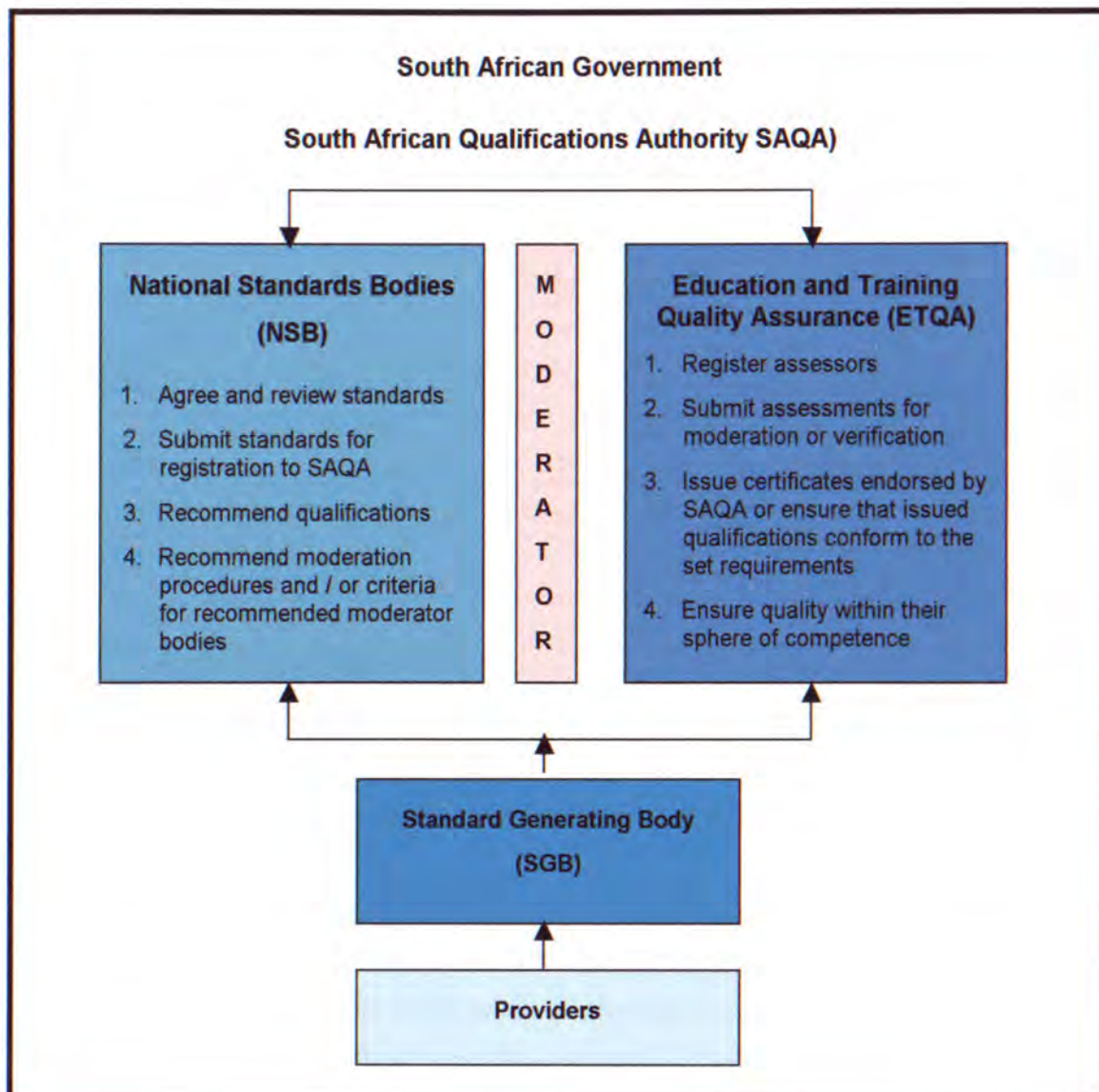
- Learner enrolments by standards and qualifications
- Learner progress and achievement
- Appropriateness of standards and qualifications
- Access to further education and training of learners
- Self-reviews and evaluations of quality management systems
- Proposals for improvement

3.1.7.1 The Education, Training and Development Practitioner Quality Assurance Body (ETDPQA)

The Education, Training and Development Practitioner Quality Assurance Body (ETDPQA) is accredited by SAQA as an ETQA. The ETDPQA is a division of the Education, Training and Development Quality Assurance Body ETDQA and will be responsible for the quality assurance of the related qualifications to the ETDQA by SAQA.

SAQA, in association with NSBs, ETQAs and SGBs, as represented in Figure 3, provide a systemic approach to the generation, registration and accreditation of national unit standards and qualifications.

Figure 3: The relationship between SAQA, NSBs, SGBs and ETQAs



3.1.7.2 The Council for Higher Education (CHE)

The Council for Higher Education (CHE) is a statutory body to provide independent, strategic advice to the Minister of Education relating to matters of higher education in South Africa regarding quality assurance and to promote quality (Du Pré, 2000:8).

3.1.7.3 Higher Education Quality Committee (HEQC)

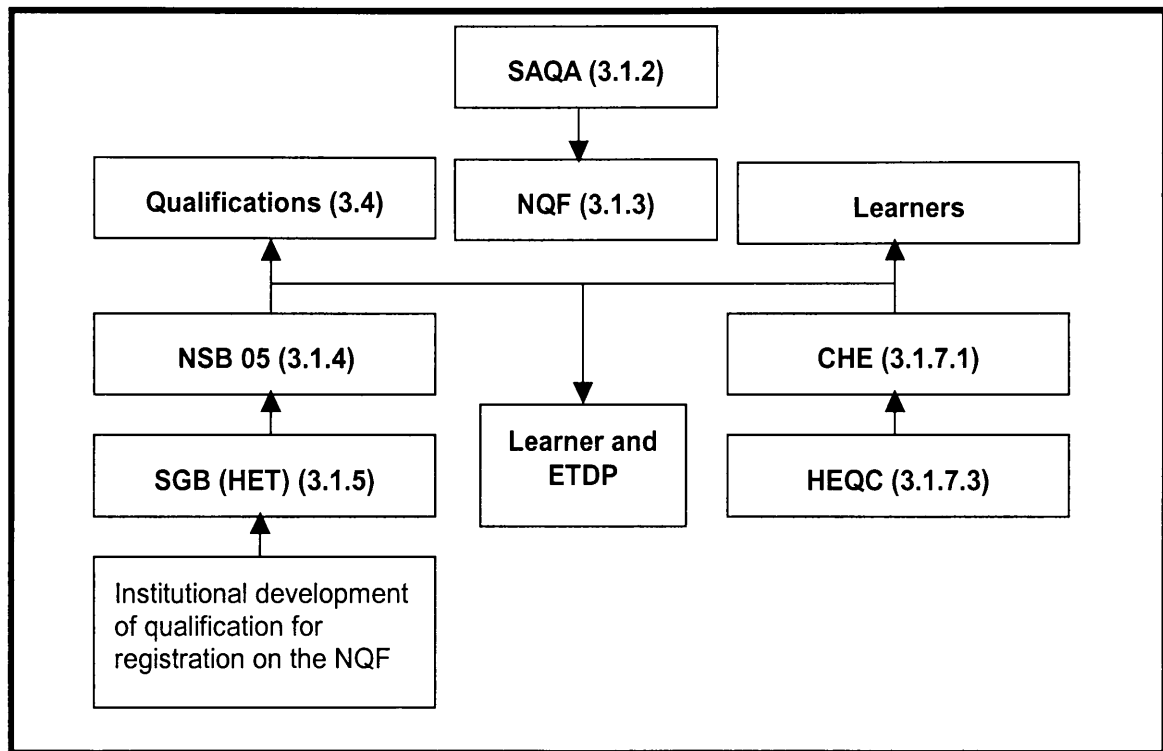
Higher Education Quality Committee (HEQC) is responsible for the quality assurance in higher education. The HEQC will be responsible for the following (Du Pré, 2000:26):

- Programme accreditation [Chapter 4, Chapter 5, Chapter 6]
- Institutional auditing [Chapter 7]
- Quality promotion [Chapter 8]

3.1.8 Summary

The specific route of a qualification in the South African education, training and development system for a learner in the higher education is represented in Figure 4 as constructed by the author from the previous discussions.

Figure 4: The representation of a qualification for a learner in higher education



The learner registers for a qualification with an accredited training provider for a qualification developed by the institution related to an SGB. The SGB submits the qualification to the NSB that registers the qualification on the NQF and SAQA accredits the learner with the qualification if the learner is competent when assessed against the outcomes of the qualification.

To enable SAQA to accredit the learner with the qualification the ETDP registers as an assessor with the Higher Education and Training ETQA (HETQA). The HEQC advises the EDTPQA on behalf of SAQA to accept the report on the competence of the learner in the outcomes of the qualification.

The ETQA does the certification on behalf of SAQA. The learner is accredited with the qualification by SAQA and the name of the learner is registered by the ETQA on the NQF in the NLRD.

3.2 The National Skills Strategy

The national skills strategy addresses the need for the following (Van der Schyff, 2001:66):

- Increase investment in skills development and therefore an improvement of competitiveness and productivity in business
- Development of plans for social improvement and elimination of poverty

The statistical information supporting this need is illustrated in Table 23.

Table 23: Statistics on the population of South Africa

Number of people	Description
14 million	Economically active people in South Africa
14 million	Young and old people in South Africa who cannot be economically active and are supported by the 14 million economically active people
13 million	Not economically active people
41 million	Approximate population of South Africa

The information in Table 23 reveals that 14 million economically active people support 27 million economically inactive people in South Africa.

The Skills Development Act (South Africa, 1998) and the Skills Development Levies Act (South Africa, 1999) demonstrate the commitment of the South African Government to address the problem of skills shortage and to promote an active labour market. It focuses therefore predominantly on the milieu of labour.

3.2.1 National Skills Authority (NSA)

The National Skills Authority is responsible for the policy of a skills development strategy in South Africa to address the above-mentioned problems through the Skills Development Act (South Africa, 1998) and the Skills Development Levies Act (South Africa, 1999).

The NSA was introduced in 1999 and comprises representatives from labour, business, community development, government providers and SAQA. The NSA advises the Minister of Labour on national skills policy development.

3.2.2 The Skills Development Act

The objectives of the Skills Development Act are to develop a skills development plan (SDP) to improve the skills of the South African workforce by providing for learnerships that will lead to occupational qualification by implementing the following (Olivier, 2000:172; South Africa, 1998):

- Increasing the levels of investment in education and training
- Encouraging employers and employees to buy into the new system improving employment prospects of previously disadvantaged individuals
- Ensuring quality of education and training
- Assisting with finding and matching employment

3.2.3 The Skills Development Levies Act

The objectives of the Skills Development Levies Act are to achieve the following (South Africa, 1999):

- Encouraging employers to increase training expenditure
- Encouraging employers to draw up a skills plan in order to qualify for partial refunding of the levy
- Appointing a skills development facilitator (SDF) to draw up and submit a workplace skills plan, implement training in accordance with the skills development workplan and report on the implementation of the workplace skills plan.

3.2.4 Skills Development Facilitator (SDF)

- The Skills Development Facilitator (SDF) is a professional co-ordinating person in the organisation to execute the following (Van der Schyff, 2001:71; South Africa 1999):
- Be a contact person with the SETA
- Developing and implementing a Skills Development Plan (SDP) for a company
- Designing a quality assurance system and
- Compiling reports on workplace skills plans

3.2.5 Sector Education and Training Authority (SETA)

The Sector Education and Training Authority (SETA) was established by the Minister of Labour in terms of the Skills Development Act of 1998 (South Africa, 1998). The policy of the skills development strategy was to be implemented through the SETAs. There are 25 SETAs representing each of the different business sectors in South Africa. A SETA has representation on one or more of the NSBs as a member of a critical interest group (Du Pré, 2001:24; Olivier, 2000:173; Services SETA, 2000).

Sector Education and Training Authorities (SETAs) execute functions in the training environment under supervision of the ETQAs. The Sector Education and Training Authority (SETA) also reports to the ETQA. An ETQA may, with approval of SAQA, delegate selected functions to a provider.

Companies are required to register with a SETA. SETAs are required to obtain accreditation by SAQA as an ETQA (Olivier, 2000:19). When referring to ETQAs the relevant SETAs are implied.

A SETA must apply to SAQA for accreditation for the ETQA function (quality assurance) within the sector for the following (Du Pré, 2000:25; Olivier, 2000:19; Services SETA, 2002):

- Registering assessors
- Accrediting providers
- Facilitating moderation
- Promoting quality
- Monitoring provision
- Evaluating assessment
- Certifying learners
- Maintaining the database
- Recommending new standards or qualifications
- Modifications to existing standards and qualifications
- Submitting reports to SAQA

The SETA will develop a sector skills plan, promote learnerships¹⁵ and collect the skills development levy. Skills development levies will be payable by all companies with a payroll of more than R250 000.00 and will be refunded partially to employers of whom the employees improve their qualifications. It will also be partially used to finance unemployed and underemployed people with no access to training. The South African Revenue Services (SARS) is empowered to assist with the implementation of the Skills Development Act (Du Pré, 2000:26; Olivier, 2000:177; Smith, 2001:198; South Africa, 1998; South Africa, 1999; Van der Schyff, 2001:67).

3.3 Summary of the national educational structures in South Africa

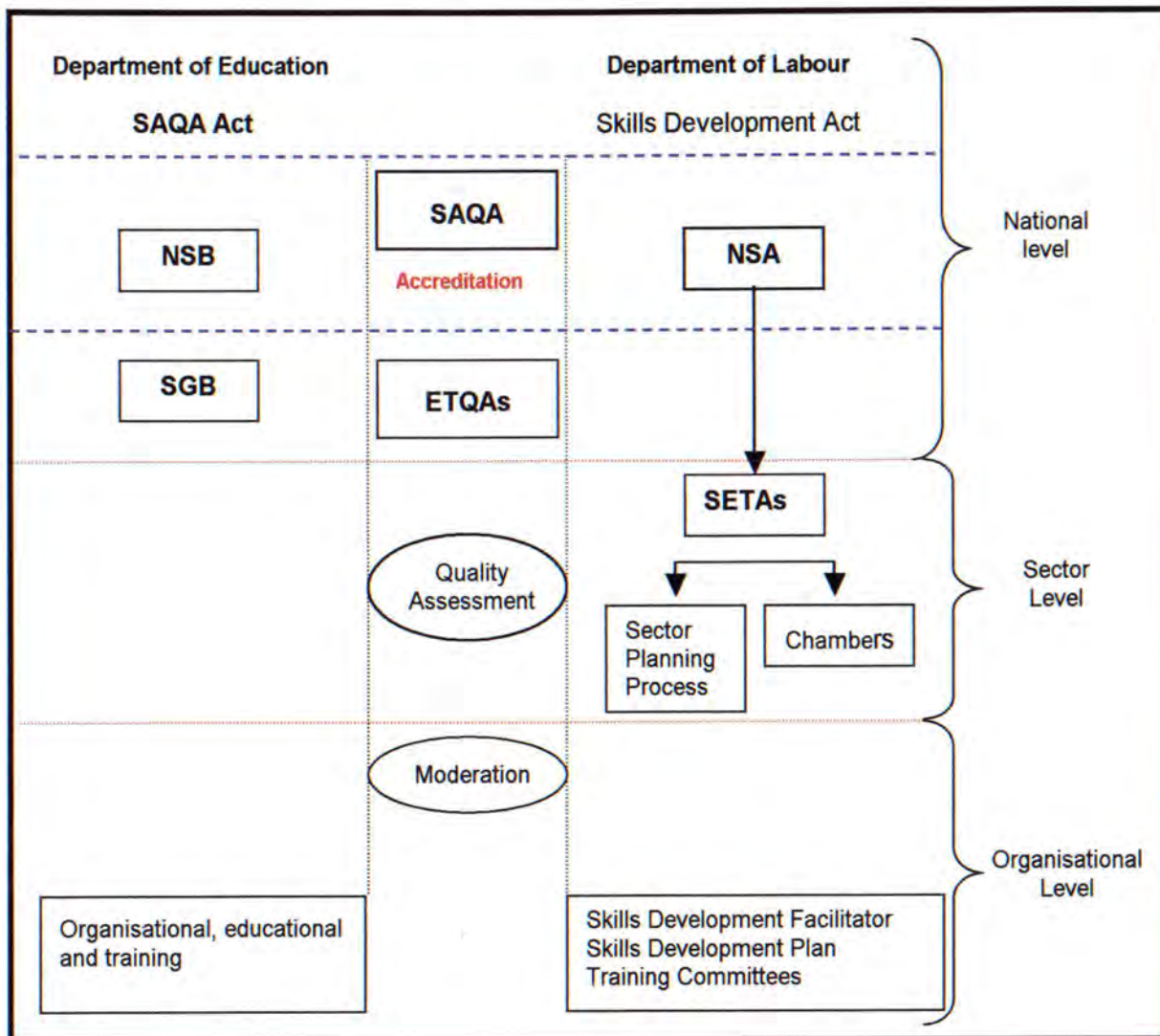
The importance of the Skills Development Act and the Skills Development Levies Act in the context of this study is to take note that the South African Government is committed to promote and achieve the following:

- A process of life-long learning
- Well-educated and trained learners from academic institutions will not have to be retrained in the workplace, but will be allowed to improve their qualifications immediately and therefore contribute to the partial refunding of levy without unnecessary delay

The compilation of the national structures for education, training and development in South Africa can be summarised in Figure 5 as adapted from Van der Schyff (2001:68).

¹⁵ A learnership is an alternative way of obtaining a qualification by means of a structured learning programme that includes practical work experience, and leads to an occupationally-related qualification registered on the NQF (DuPré, 2000:25; Olivier, 2000:23).

Figure 5: The national structures for education, training and development



3.4 The South African Qualification

South African qualifications are no longer defined in terms of time, e.g. a three year diploma or degree, but in terms of the exit level outcomes which define the applied competence to be achieved by a successful learner. A learner could be highly qualified on paper, but incompetent in the work place (Norms and Standards for Teacher Education, Training and Development, 1997:51, 52).

Table 24 summarises the different explanations of a South African qualification as found in literature.

Table 24: Conceptualisation of the South African qualification

Author	Definition
Du Pré (2000:27)	“Qualifications are nationally agreed upon, and internationally comparable statements of learning achievements , which are supported by the achievements of unit standards .”
Norms and Standards for Teacher Education, Training and Development (1997:52)	“...a planned combination of learning outcomes which has a defined purpose or purposes, and which is intended to provide qualifying learners with applied competence and a basis for further learning ; and it means the formal recognition of the achievement of the required number and type of credits and such other requirements at the specific levels of the National Qualifications Framework as may be determined by the relevant bodies registered for such purposes by the South African Qualifications Authority.”
Olivier (2000:21)	“The SAQA Act defines a qualification as the achievement of a certain number of credits embodied in a coherent number of unit standards . The term “coherent” emphasises the fact that a random cluster of achievements will probably not lead to a qualification.” “Qualifications are nationally agreed and internationally comparable statements of learning achievements of unit standards . The crux of each qualification will be that learners will be able to prove that they achieved outcomes on one of the eight levels , irrespective of how and where it was learned.”
SAQA (1995:3)	“... formal recognition of the achievement of the required number of range of credits and such other requirements at specific levels of the National Qualifications Framework as may be determined by the relevant bodies registered as such by the South African Qualifications Act .”
SAQA (1998)	“... a qualification means a planned combination of learning outcomes which has defined purpose or purposes, and which is intended to provide qualifying learners with applied competence and a basis for further learning ; and it means the formal recognition of the achievement of the required number and range of credits and such other requirements at specific levels of the NQF as may be determined by the relevant bodies registered for such purposes by SAQA.”

From the synthesis of the information in Table 24 it is evident that a qualification comprises the following [Chapter 4].

- A planned body of knowledge compiled in a **unit standard or qualification** [Chapter 4]
- No **location or time constraints** [Chapter 5]
- Proof of **achieved outcomes** [Chapter 6]
- Recognition of achievement / **applied competence** against learning outcomes [Chapter 7]
- **Nationally agreed and internationally comparable** [Chapter 8]
- An allocation of **credits on levels** [Chapter 3]
- An aim at **life-long learning** [Chapter 3]

The key concept is that *integration of learning* is the ultimate requirement for a qualification. The achievement of a qualification no longer depends on a learner attending a course, but by a learner accumulating *credits* through either full-time, part-time, distance or workplace learning or a combination of these (Du Pré, 2000:16; HSRC, 1995:14). All qualifications have assessable outcomes with the implication that no matter where this qualification was obtained, the outcomes would be equivalent (HSRC, 1995:27). Qualifications are awarded by Education and Training Quality Assurance bodies (ETAQs) and accredited by SAGA on completion of one of the eight levels of the NQF when a learner has successfully completed a learning programme consisting of credits.

A SAQA accredited qualification consists of at least 120 credits with a minimum of 72 credits being obtained at or above the level at which the qualification is registered (Olivier, 2000:22; SAQA, 1997:15). The NQF recognises both a whole qualification as well as a unit standards-based qualification and will be implemented as follows (Norms and Standards for Teacher Education, Training and Development, 1997:53):

- Standards Setting [Chapter 4]
- Learning Programme Development and Delivery [Chapter 4, Chapter 5, Chapter 6, Chapter 7]
- Quality Assurance of the Process [Chapter 8]

'National Qualifications' means nationally recognised qualifications and not qualifications issued by the government and in order to receive a qualification a learner will have to be submitted to integrative assessment (HSRC, 1995:32, 64).

A qualification will be registered for a period of five years after which application shall be made for re-registration (HSRC, 1995:32).

A complete discussion of a qualification will follow in Chapter 4.

3.4.1 Unit Standards

The unit standard is a nationally agreed and internationally comparable registered statement of the desired education and training level outcomes (knowledge, skills and abilities) and their associated assessment criteria, administrative and any other information that can be demonstrated by an individual in order to obtain credit for a unit (Du Pré, 2000:iv; HSRC, 1995:16; King, 1999:13; Olivier, 2000:23). Unit standards are building blocks for credits and qualifications and can be selected and packaged in such a way that they support and interrelate with each other for a qualification (King, 1999:13; Olivier, 2000:5,23; Van der Horst & McDonald, 1997:72; SAQA 1997:8).

A unit standard is a document that relates the learning outcomes and the assessment procedures to determine whether the learner is competent or not yet competent. Unit standards are public domain and will be available on the National Qualifications Framework database (Olivier, 2000:21; Siebörger & Macintosh & Macintosh, 2001:58).

The purpose of a unit standard is the following (Olivier, 2000:24; SAGA, 1998):

- To indicate to the **learner** the competence of learning outcomes for a qualification, i.e. a learner's guide [Chapter 4, Chapter 6, Chapter 7]
- An **educator's guide** for the preparation of learning material / learning programmes [Chapter 4, Chapter 5, Chapter 6]
- To indicate to the **assessor** the competence of learning outcomes for a qualification for assessment (an assessor's guide) [Chapter 7, Chapter 8]

Although a unit standard is a document with a prescribed format¹⁶, the training provider can develop a unique process of learning / learning programme (HSRC, 1995:31; King, 1999; Olivier, 2000:24; Siebörger & Macintosh, 2001:57) [Chapter 4].

3.4.2 Credit

A credit is expressed in a credit value and is the recognition by an accredited body (ETQA) that a learner is competent in the outcomes of a unit standard of learning (NSBs, SGBs) at a specified NQF level (HSRC, 1995:2; Norms and Standards for Teacher Education, Training and Development, 1997:xi).

SAQA accepts a credit system on the basis of one (1) credit equalling ten (10) notional hours of learning motivated in context in every case (Du Pré, 2000:ii, 27; SAQA, 1997:10). Notional hours are the "informed estimate of the average time an average¹⁷ learner, entering with the correct level of assumed knowledge, would take to master the specific outcomes of a unit standard" (Norms and Standards, 1997:54). This time includes time spent on learning including assignments, home study, etc. and not just the lecturing time. Hundred and twenty (120) SAQA credits are equivalent approximately to one year of full time study¹⁸.

To qualify for a credit in a unit standard or qualification a learner must demonstrate and prove of competence of the critical-, specific- and end-product outcomes [Chapter 6, Chapter 8] (Olivier, 2000:25).

3.4.3 Competence

Competence is not a probability of success in the execution of one's job, it is a real and demonstrated capability. Table 25 a summary of the conceptualisation of competence related to the outcomes in a unit standard or qualification in South African education, training and development.

¹⁶ Refer Addendum 3

¹⁷ Although it may take some learners more and some learners less time to complete the specific outcomes of the unit standard, the issue is the completion of the competence of outcomes against a set of assessment criteria (Du Pré, 2000:27; Olivier, 2000:24).

¹⁸ The minimum credits for a qualification = 120

Thus the minimum number of notional hours = 120 x 10 = 1200 hours of learning

Assume learning takes place for 10 months a year = 1200 / 10 = 120 hours of learning per month

Assume learning takes place 20 days a month = 120 / 20 = 6 hours of learning per day

Table 25: Conceptualisation of “competence”

Author(s)	Conceptualisation of “competence”
Bellis (2000:60)	“A skill or cluster of skills executed (carried out) within an indicated range or context to specific standards”
HSRC (1995:2)	“The capacity for continuous performance within specified ranges and contexts resulting from integration of a number of capabilities ”
Lancaster (2001:97)	“The integration of knowledge, skills and value orientation, demonstrated to a defined standard in a specific context ”
Mokhobo-Nomvete (2000:2)	‘... competence is about demonstration of: <ul style="list-style-type: none"> ➤ The ability, performing or acting ➤ The understanding of knowledge underpinning performance or action ➤ The ability to integrate understanding of knowledge underpinning performance or action’

The synthesis of the information from Table 25 indicates that ‘competence’ is about the following:

- Knowledge, skills and values (What?) [Chapter 6, Chapter 7]
- Continuous performance (When?) [Chapter 6, Chapter 7]
- Integrated / holistic approaches (How?) [Chapter 4, Chapter 5]
- A real-life context (Where?) [Chapter 4, Chapter 5, Chapter 6]
- Transferability [Chapter 4, Chapter 5, Chapter 6]
- With evidence and identifiable [Chapter 6]
- Claimed in a unit standard [Chapter 3, Chapter 4]

The competence of a learner is determined through criterion-referenced assessment. The learner is assessed against being “competent” or “not yet competent” and the implication is that a qualification will be registered against 100% competence (Lancaster, 2001:106).

Mabaso (2001:162) and Mokhobo-Nomvete (2000:2) elaborate on competence as follows:

- The know-how and knowledge to accomplish something
- The ability to perform an actual occupational role
- To do something in real context
- The transfer of skills to many other situations
- Practical competence (considering a range of possible actions in authentic context and the ability make decisions), foundational competence (demonstrates understanding of the knowledge and thinking underpinning the action taken) and reflexive competence (integrate performances and decision making and ability to adapt to change)
- To act or perform with evident and identifiable action

Table 26 is a summary of the conceptualisation of performance related to the outcomes in a unit standard or qualification in South African education, training and development.

Table 26: Conceptualisation of “performance”

Author(s)	Conceptualisation of “performance”
HSRC (1995:3, 40)	<p>“Holistic or integrated demonstrations of mental, affective and manual activities. Performances also express particular values. Demonstration of performance for assessment requires completion of specified tasks, as well as explanation of the rationale for doing tasks in particular ways.</p> <p><i>Knowledge + Understanding + Skills + Values / Attitudes = Performance</i>”</p>
Norms and Standards for teacher Education, training and Development (1997:117)	<p>“Performance is a process. What we actually see when someone performs is only the tip of the iceberg. The content of his or her knowledge, interpreted through a value system and engaging certain cognitive processes, is the invisible part of the iceberg.”</p>

The synthesis from Table 26 indicates that ‘performance’ involves the following:

- **Holistic and integrated activities** [Chapter 4, Chapter 5, Chapter 6]
- **Cognitive, affective and psychomotor skills** [§ 4]
- Involved in a **process** [Chapter 6, Chapter 7]
- It is **observable / visible** [Chapter 8]

Performance does not occur in isolation and involves an integrated dimension of communicative and interactive abilities.

4 Educational concepts of education, training and development in South Africa

To understand the context of this study it is necessary to understand the legislative as well as the educational concepts in South African education, training and development. It is not the purpose of this study to make an in depth comparison of the different learning theories. The educational concepts will be discussed in this section.

4.1 Outcome-based education (OBE)

Since the earliest ages of mankind philosophers and educational researchers were occupied by the phenomenon of learning and how it happens (Duffy and Jonassen, 1992). At present most of these theories can be broadly classified into ‘content-based learning’ and ‘outcome-based learning’¹⁹.

In a world with a variety of philosophies on education and theories of learning, South African education, training and development has now been directed towards an outcome-based philosophy (Van der Horst & McDonald, 1997:19). This change involves an alternative approach to content-based education with unfamiliar terminology and thinking constructs and it is a major attempt to build the country into an international role-player (Olivier, 2000:29). Outcome-based education cannot be translated according to traditional content-based learning approaches. It entails a completely different way of thinking.

¹⁹ ‘Outcome-based education’ is a broader concept than ‘outcome-based learning’ [Chapter 4, Chapter 5, Chapter 6, Chapter 7]. ‘Outcome-based learning’ is used to indicate the executing of a learning situation in particular.

Outcome-based education is not a completely new concept, and has been practised in the history of mankind, as well as in various fields of vocational training. However, the NQF is based on the philosophy of outcome-based education (OBE) and this has now officially been adopted as the education system for South Africa.

Table 27 lists the different conceptualisations of the concept “outcome-based education / learning” as found in the literature.

Table 27: Conceptualisation of “outcomes-based education / learning”

Author(s)	Conceptualisation of “outcomes-based education”
Du Pré (2000:5)	“... outcomes-based learning signifies the approach where by curriculum of course design, planning and offering of education and training assessment and advancement of learners are based on the demonstration or the achievement of outcomes”
Meyer & Mokoele,(2001:18)	“What the learner is able to do, in other words, each learning programme must have a particular outcome in terms of what the learner can do in the workplace”
Mokhobo-Nomvete (2000)	“OBE is defined as a learner-centred approach to education and training that is primarily characterised by a focus on results and outputs as opposed to inputs and syllabi or curriculum”
Olivier (2000:1,29)	“Outcomes-based learning is learning based on intended end-results ... within the context of the outcome ... as opposed to traditional input-based learning”
Siebörger & Macintosh, (2001:35)	“Outcomes-based education is an approach to teaching and learning which stresses the need to be clear about what learners are expected to achieve”
Spady (1994:191)	“A comprehensive approach to organising and operating an education system that is focused on and defined by the successful demonstrations of learning sought from each student”
Van der Horst & McDonald (1997:7)	<p>“Outcome-based education can be described as an approach which requires teachers and learners to focus their attention on two things:</p> <ul style="list-style-type: none"> ➤ Firstly, the focus is on the desired end results of each learning process. These desired end results are called the outcomes of learning and learners need to demonstrate that they have attained them. They will therefore continuously be assessed to ascertain whether they are making progress ➤ Secondly, the focus is on the instructive and learning process that will guide the learners to these end results. Teachers are required to use the learning outcomes as a focus when they make instructional decisions and plan their lessons”

Table 27 indicates that the key concepts of outcome-based education and learning are the following:

- Directing towards the **result of learning** as an **authentic process** of **learner achievement** [Chapter 6, Chapter 7]
- Directing towards the **learning process** and focused on the **outcome** [Chapter 4, Chapter 5]

Du Pré (2000:5), Killen (2002), Olivier (2000:30), Siebörger & Macintosh (2001:58), Spady (1994:1,9; 2002) and Van der Horst & McDonald (1997:6) elaborate on these key concepts as follows:

- A clear set of learning outcomes around which all components can be focused, so that all learners can succeed and achieve their full potential, although not on the same day and in the same way [Chapter 4, Chapter 6, Chapter 7]

- The conditions and opportunities to achieve these outcomes must change to flexible approaches that take into account learner diversity, abilities, learning styles and participation in democratic decision making [Chapter 5]
- Outcomes-based education is embedded in the prior knowledge of the learner in a relevant and authentic environment (real-life experience) [Chapter 4, Chapter 5, Chapter 6, Chapter 7]
- Transparent: it must always be clear to the learners what they need to do and how they will be assessed [Chapter 5, Chapter 6, Chapter 7]
- Learner-centred: Focus on the learner needs and outcomes are not written for a class, but for an individual [Chapter 5, Chapter 6, Chapter 7]
- An holistic and integrated approach towards learning, i.e. mastering of content and competence and processes within a specific context [Chapter 4, Chapter 5, Chapter 6, Chapter 7]

It is important to note that there is a tendency to interpret outcome-based education as prioritising skills and values at the expense of content and knowledge. Knowledge is still central to education, but not as mere facts, but as knowledge that improves the quality of learners in real-life (Norms and Standards for Teacher Education, Training and Development, 1997:52).

4.2 Content-based education versus outcome-based education

With reference to section 4.1 research in education evolved in a variety of learning theories. These theories can be classified as either a philosophy of content-based education or a philosophy of outcome-based education. These theories are also related to the necessity to minimise the gap between the separate worlds of “learning” and “work” that characterises education in the world (Olivier, 2000:88).

4.2.1 Content-based education (CBE)

Content-based education (CBE) starts with an overall goal, called a syllabus. The syllabus is organised in a hierarchy of linear and progressive syllabus themes, sub-themes and lessons and is implemented from school level up to tertiary degrees. There is a limited time-frame and a body of knowledge to cover. The learning process is therefore content and time driven and not achievement and learner driven (Olivier, 2000:87-89).

4.2.2 Outcome-based education (OBE)

South Africa needs learners with a broad perspective who are adaptable to change. Outcome-based education starts with a nationally recognised learning programme [Chapter 4], clustered into specific outcomes (knowledge, skills and values) to be achieved by the learner through an integrated learning experience [Chapter 5] that provides for gathering and analysis of data, critical thinking, problem solving, alternative solutions and application of knowledge, skills and values in an authentic environment [Chapter 6] (Olivier, 2000:94)²⁰.

²⁰ Objectives, aims and goals describe the intent of the teacher for the learner, whereas outcomes describe what the learner must be able to achieve after a learning intervention (Van der Horst & McDonald, 1997:8).

4.2.3 Comparison of content-based education and outcome-based education

To understand the difference between content-based education and outcome-based education it is necessary to understand what learning is and to accept that none of the traditional concepts can be directly translated into the context of outcome-based education (Du Pré, 2000:5, Olivier, 2000:2).

Du Pré (2000:5), Meyer & Mokoele (2001:19), Nel (2001:142), Olivier (2000:2, 6,32,90–108); Spady (1994:62) and Van der Horst & McDonald (1997:20,27) compare content-based (traditional) education and outcome-based education as in Table 28.

Table 28: Comparison of content-based education and outcome-based education

Education Dimension	Content-based education	Outcomes-based education
Needs analysis [Chapter 3, Chapter 4]	<ul style="list-style-type: none"> ➤ Few stakeholders are consulted; not open to public ➤ The EDTP²¹ develops the course for personal application ➤ The EDTP decides the needs ➤ The EDTP develops the needs with end product and transfer of information in mind 	<ul style="list-style-type: none"> ➤ Different stakeholders are consulted: employers, employees, government, special interest groups, providers and learners ➤ The end-product of needs analysis is reflected as unit standards [Chapter 4] ➤ Stakeholders develop needs on a learner-driven scenario
Course design [Chapter 4]	<ul style="list-style-type: none"> ➤ Course development around the compartmentalised content ➤ The goals of the course are written as objectives in a syllabus 	<ul style="list-style-type: none"> ➤ Learning programmes are designed according to the needs of the stakeholders [Chapter 4] ➤ Outcomes clearly indicate what the learner must be able to do as a standard
Learning material [Chapter 5]	<ul style="list-style-type: none"> ➤ The learning material is content-driven study manuals and textbooks ➤ Mastery of knowledge – topics unpacked in rigid syllabus ➤ The educator determines the content 	<ul style="list-style-type: none"> ➤ Learning material is called learning guides and is generic outcomes-driven in a real-life context as a process [Chapter 4] ➤ The content is determined by the inputs of the role players ➤ Alternative sources and resources
Learners [Chapter 5, Chapter 6]	<ul style="list-style-type: none"> ➤ Rote learning ➤ Lectured ➤ Passive receivers 	<ul style="list-style-type: none"> ➤ Critical thinking and reasoning ➤ Facilitated ➤ Active participants [Chapter 6] ➤ In control of own learning
Educator [Chapter 5, Chapter 6]	<ul style="list-style-type: none"> ➤ Teacher / trainer centred ➤ Main source of information 	<ul style="list-style-type: none"> ➤ Learner-driven stimulating activities [Chapter 5, Chapter 6] ➤ Facilitator; guidance

Table 28 is to be continued on the next page.

²¹ ETDP is the Education Training and Development Practitioner

Table 28: Comparison of content-based education and outcome-based education (continued)

Education Dimension	Content-based education	Outcomes-based education
Learner abilities [Chapter 5, Chapter 6]	<ul style="list-style-type: none"> ➤ Lower cognitive levels (knowledge, understanding, application) ➤ Little communication 	<ul style="list-style-type: none"> ➤ Higher cognitive levels (analysis, synthesis, application) ➤ Meta-cognition [Chapter 5, Chapter 6] ➤ Communication is crucial
Presentation [Chapter 5, Chapter 6]	<ul style="list-style-type: none"> ➤ The EDTP presents the learning material in a pre-determined way ➤ The EDTP is in control of the learning event ➤ Practise until learner is skilled for transfer of knowledge ➤ Fixed timeframe 	<ul style="list-style-type: none"> ➤ The EDTP presents a lesson based on the unit standards in a flexible manner ➤ The EDTP guides learners to achieve the outcomes [Chapter 6] ➤ ETPD guides learners to construct own knowledge
Assessment [Chapter 5, Chapter 6]	<ul style="list-style-type: none"> ➤ Learners do assignments ➤ Learners do written tests and examinations to determine the level of performance ➤ Pre-determined memoranda with answers ➤ Pass or fail according to how well they have mastered the knowledge 	<ul style="list-style-type: none"> ➤ A variety of assessment techniques are used, e.g. simulations, portfolios, self-assessment, workplace assessment [Chapter 7] ➤ Assessment criteria are clearly defined and indicated as part of a unit standard ➤ Continuous activity ➤ Based on knowledge, skills and adherence to specific processes as well as achievement of outcomes ➤ Part of the learning process

From Table 28 it is evident that in outcome-based education the emphasis is on the following and as described in Chapter 4, Chapter 5, Chapter 6, Chapter 7, Chapter 8:

- Written in a unit standard or qualification including the outcomes
- Outcomes clearly indicate what the learner must be able to do
- Learning is a process
- All participants partake
- Real-life (authentic) activities
- Higher order thinking skills
- Flexible environment
- Variety of assessment techniques
- Determine competence of the learner

4.3 Outcomes

The SAQA regulations (SAQA, 1998) define outcomes as the contextually demonstrated end products of the learning process. Table 29 lists the different conceptualisations of the concept “outcome” as found in the literature.

Table 29: Conceptualisation of “outcome”

Author(s)	Conceptualisation of “outcome”
Du Pré (2000:iv)	“Outcomes mean the contextually demonstrated end-products of the learning process. ”
HSRC (1995:2)	An outcome “is the segment of a unit standard which is a statement of the required learner capabilities that must be demonstrated . Outcomes are specified by stated performances, assessment and range criteria. ”
King (1999:11)	“Quite simply, outcomes are the results of learning processes and comprise knowledge, skills and attitudes . Outcomes are shown through performance : that is, the focus is on what learners can do when they reach a certain stage in learning, and how they can apply new skills and knowledge in different contexts , rather than on the topics that must be covered in a learning stage.”
Mokhobo-Nomvete (2000:3)	“Outcomes in essence are statements regarding elements of competence that specify performance which can be assessed through a variety of assessment methods , against specified criteria in particular contexts and on the basis of evidence collected. Outcomes go beyond the specification of subject content . They include reference to elements such as knowledge, understanding, values, skills, affective elements, and scope, context and level of learning. ”
Olivier (2000:25, 41)	“Outcomes are defined as being of three kinds, namely critical-, specific- and end-product outcomes. ” “An outcome always results in either a product, a service or a decision and is always coupled to a specific level of complexity. ”
Sieböcker & Macintosh (2001:36)	“... what performance is expected of the learners” ... “the results expected at the end of a learning process. It refers to the knowledge, skills and / or attitudes which learners should be able to demonstrate that they can understand and apply within a particular context. ”
Spady (1994:2)	“Outcomes are clear learning results that we want students to demonstrate at the end of significant learning experiences . They are not values, beliefs, attitudes or psychological states of the mind . Instead, outcomes are what learners can actually do with what they know and have learnt – they are the tangible application of what has been learned.”
Van der Horst & McDonald (1997:168)	“The knowledge, skills and values or attitudes achieved by the learners are the learning outcomes of a programme, unit or course.”

The synthesis from Table 29 results in the following characteristics of an outcome:

- Performance / demonstration (can do) [Chapter 4, Chapter 5, Chapter 6]
- Competence in real-life context and transferable [Chapter 4, Chapter 5, Chapter 6]
- Involve cognitive, affective and psychomotor skills [Chapter 4, Chapter 5, Chapter 6]
- Level of learning as a process embedded in a unit standard [Chapter 4, Chapter 8]
- Can be assessed against criteria [Chapter 7] after evidence have been collected [Chapter 6] during the learning process [Chapter 4, Chapter 5]

Spady (1994:49) supports this and furthermore states that “outcomes are what students actually can do with what they know and understand” and that outcomes are “not a collection or average of previous learning experiences, but a manifestation of what learners can do once they have completed all those experiences” (Spady, 1994:49) [Chapter 7]. Outcomes can happen, anytime and anywhere. They are measurable in content, context and competence on a dichotomy continuum from simple to complex and include the following (Killen, 2002; Spady, 2002):

- Clarity of focus
- Expanded opportunity –it does not happen in one day
- High expectations
- The Bell-curve doesn't exist
- Top-to-bottom design
- Culminating demonstrations of learning
- Demonstration of the mental processes

Although Spady (1994:50) does not support the inclusion of affective skills like values and attitudes as outcomes, these cannot be excluded within the holistic approach of the education, training and development in South Africa.

With reference to the above-mentioned description an outcome must always be described in terms of the following (Olivier, 2000:45-46).

- A **verb** (the essence of the outcome)
- A **noun** (what is going to be achieved)
- A **qualifier** (technology, methodology, dimension, scope, depth, level of complexity)

It is relevant to note that an outcome should not be seen as narrow, mechanical behaviours, but as broad, integrative capabilities that draw on an understanding of underlying principles and processes and that the outcomes become the content of the learning programme (King, 1999:11; Olivier, 2000:48) [Chapter 4].

In the context of South African education, training and development three kinds of outcomes have been identified, i.e. critical cross-field outcomes, specific outcomes and end-product outcomes.

4.3.1 Critical Cross-Field Outcomes

Knowledge and technical expertise by itself are no longer sufficient to empower a learner for the Information Age and globalisation. Olivier (2000:35) and Spady (1994:29,31) emphasise that learners need high skills of communication, collaboration, interpersonal leadership, effective working in teams to solve significant problems, implement solutions, become adaptable to changes and acceptable to life-long learning. To ensure that the South African education system caters for these changes, critical cross-field outcomes are defined. These outcomes are broad and on a macro level and cannot be accomplished in a specific timeframe or learning situation and will therefore be practised and become part of each and every learning situation a learner is exposed to.

Table 30 contains the generic critical cross-field outcomes for South African education, training and development (SAQA, 1997:7; SAQA, 1998).

Table 30: Critical cross-field outcomes

<p>Critical cross-field outcomes</p> <ol style="list-style-type: none"> 1. Identify and solve problems in which responses display responsible decisions using critical and creative thinking have been made 2. Work effectively with others as a member of a team, group, organisation or community 3. Organise and manage oneself and one's activities responsibly and effectively 4. Collect, analyse and critically evaluate information 5. Communicate effectively using visual, mathematical and / or language skills in the modes of oral and / or written persuasion 6. Use science and technology effectively and critically, showing responsibility towards the environment and 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 <p>Developmental Outcomes</p> <p>In order to contribute to the full personal development of each learner and the social and economic development of the society at large, it must be the intention underlying any programme of learning to make an individual aware of the importance of:</p> <ol style="list-style-type: none"> 1. Reflecting on and exploring a variety of strategies to learn more effectively 2. Participation as responsible citizens in the life of local, national and global communities 3. Being culturally and aesthetically sensitive across a range of social contexts 4. Exploring education and career opportunities 5. Developing entrepreneurial opportunities
--

The NQF critical cross-field outcomes are to be taken seriously and generic to all qualifications, cross-curricular, focus on the capacity to apply knowledge, skills and attitudes in an integrated way and therefore form a foundation for all learning (Du Pré, 2000:ii; King, 1999; Norms and Standards for Teacher Education, Training and Development, 1997:82; Olivier, 2000:25; SAQA, 1997:9; South Africa, 1998; Van der Horst & McDonald, 1997:49).

The critical cross-field outcomes are a set of outcomes that are essential to all good learning, the heart of the new approach to education, promoting independent and critical thinking for life-long learning and the enabling tools and prerequisites needed to achieve specific outcomes (King, 1999:11).

4.3.2 Specific Outcomes

Specific outcomes are on a meso-level and relate to the context of the particular content or the results of narrowly defined aspects of learning as knowledge, skills and values (Du Pré, 2000:31; Olivier, 2000:36; Van der Horst & McDonald, 1997:13).

Table 31 lists the different conceptualisations of the concept "specific outcome" as found in the literature.

Table 31: Conceptualisation of “specific outcome”

Author	Conceptualisation of “specific outcome”
Du Pré (2000:iv,31)	<p>“Specific outcomes mean contextually demonstrated knowledge, skills and values, which support one or more critical outcomes.”</p> <p>Specific outcomes are:</p> <ul style="list-style-type: none"> ➤ Achievements learners should be able to demonstrate in a specific context in particular areas of learning as at specific level ➤ A comprehensive package of achievements to accomplish in order to constitute a learning programme ➤ A basis for assessing the progress of a learner ➤ A basis for selecting subject matter needed to achieve the outcomes ➤ A basis for selecting cognitive learning objectives and technical skills which will enable learners to achieve outcomes
Olivier (2000:25)	<p>“Specific outcomes are contextually demonstrated knowledge, skills and values.”</p>
Van der Horst & McDonald (1997:48)	<p>“Specific outcomes refer to the specific knowledge, attitudes and understanding which should be displayed by particular context. Specific outcomes function at the level of classroom instruction.”</p>

From Table 31 the characteristics of a specific outcome are the following:

- Constructed performance [Chapter 6, Chapter 7]
- Embedded in a learning programme [Chapter 4]
- Including knowledge, skills and values [Chapter 4, Chapter 5]
- At a specific level [Chapter 3]

As knowledge, skills and values are distinguishing concepts of specific outcomes, Olivier (2000:37-400) and Van der Horst & McDonald (1997:136) explain these concepts as in Table 32.

Table 32: Explanation of knowledge, skills and values

Concept	Explanation
Knowledge	<p>Knowledge is <i>not</i> to be regarded as information, data or facts, which are explained as follows:</p> <ul style="list-style-type: none"> ➤ Information: raw, unprocessed facts ➤ Data: processed and categorised information ➤ Facts: Information gathered in concepts or formulas <p>Knowledge is to be regarded as the following:</p> <ul style="list-style-type: none"> ➤ Information, data, facts, theories and concepts that have been contextualised ➤ The thinking constructs learners have to build up as rules, concepts, principles, codes and formulas ➤ Used to clarify and to understand logic, sequences and relations ➤ Prior knowledge is used to construct new knowledge for new decisions
Skills	<ul style="list-style-type: none"> ➤ Cognitive skills are mental techniques applied to manipulate information, data and knowledge ➤ Psychomotor or technical skills are related to physical executable activities
Values	<ul style="list-style-type: none"> ➤ Attitudes, appreciation and worth that learners attach to knowledge, skills and processes ➤ Ubuntu: an African term for “Humanness”, caring and sharing; importance is placed on every person as an integral member of humanity

To understand concept "specific outcome" the following must be included as summarised in Table 33 from Du Pré (2000:31), Lancaster (2001:101), Olivier (2000:25, 42, 44) and Siebörger & Macintosh (2001:36).

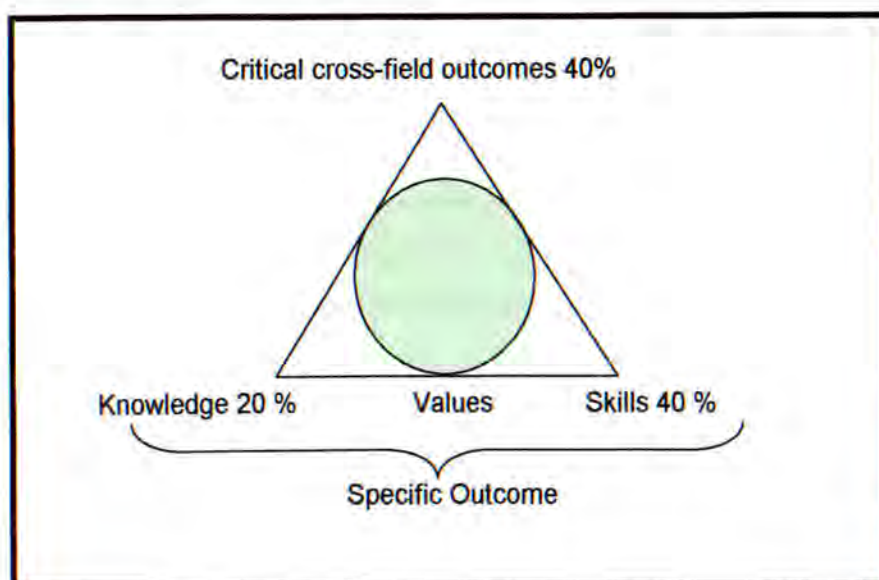
Table 33: Operationalisation of the "specific outcome"

Concept	Operationalisation of the "specific outcome"
Performance	<ul style="list-style-type: none"> ➤ Observable and transparent ➤ Describes what the learner can do at the end of the learning process ➤ Reflects the application of knowledge, demonstrate affective and psychomotor skills ➤ Described by a verb, e.g. "advise, build, compile, bake, develop, establish, maintain, print, recondition" (Olivier, 2000:45)
Condition	<ul style="list-style-type: none"> ➤ The circumstances or environment under which the performance takes place ➤ Equipment or resources necessary for effective performance
Criteria	<ul style="list-style-type: none"> ➤ The acceptable standard of performance in terms of time, quality, quantity, cost ➤ A statement derived from an outcome which describes what a learner is expected to achieve for assessment purposes
Range statement	<ul style="list-style-type: none"> ➤ A statement which specifies the scope and depth (level of complexity) of the content required, as well as the processes with which a learner should be involved in the context in which they should occur ➤ Refers to the technology involved, method applied, dimensions, scope, and parameters associated with achievement of the outcome and assessment criteria ➤ Provides direction, but allows for alternative and multiple strategies, flexibility in the choice of specific content and a variety of assessment methods ➤ Ensures the balance between acquisition of knowledge, skills, values and learning processes to achieve a credit

4.3.3 The relationship between critical cross-field outcomes and specific outcomes

Critical cross-field outcomes are aligned with specific outcomes (knowledge, skills and values) as indicated in Figure 6.

Figure 6: Relationship between critical cross-field outcomes and specific outcomes



If the total percentage of learning is hundred percent, the compilation of the contribution of each outcome in outcome-based education may be forty percent critical cross-field outcomes and sixty percent knowledge, skills and values (Olivier, 2000:62-67). Although the allocated percentage may change, distortion of the ratios will indicate that the SAQA requirements are not met as outcome-based education, but rather indicate traditional content-based learning.

4.4 Assessment

Assessment of learning will be about the competence against specific outcome and will indicate that a learner is either competent or not yet competent in performance. The assessment criteria can be an indicator of the assessment method and the range statement will be an indication of the scope and context of the assessment information to be included.

Assessment of learning will be discussed in depth in Chapter 7.

4.5 Quality Assurance

In my opinion any system is just as good as the quality assurance of the system. Meyer (2001:267) emphasises that “(Q)uality does not happen by accident. It requires commitment and constant attention from all those who are involved in the process”. Quality assurance and the related issues are very important and will be discussed in depth in Chapter 8.

4.6 Technology and outcome-based education

Embedded in the critical cross-field outcome of the “(U)se (of) science and technology effectively and critically, showing responsibility towards the environment and health of others,” technology should not determine specific outcomes, but it is a means to achieve them if the policymakers, educators or trainers can systematically identify the appropriate programme achievements, the target group and measure performance scientifically.

5 Learning

Section 3 in the chapter refers to the questions on the phenomenon of learning and how it happens. The full understanding of the legislative and the educational concepts of education, training and development in South Africa will not be complete without a brief discussion of these questions. It is also stated that the NQF is concerned with the “accreditation of assessed learning performance” (HSRC, 1995:48), that makes consideration of the learning process essential.

According to the (HSRC (1995:2) document “(L)earning is a *process* which enables a learner to approximate, with increasing success, a *capability*, which integrates the use of information (or content) with a variety of general abilities (such as problem-posing and problem-solving, ‘tool’ usage, communication and social interaction) within the context which has an informing value system”.

The scope of this study is not to make an in-depth comparison of the learning theories, but to contextualise it within Bloom’s taxonomy of learning and the relevant theories of behaviourism, objectivism, individual learning, versus cognitivism, constructivism and co-operative learning (Ginn, 1995; O’Conner, 2001).

5.1 Domains of learning

Bloom (1956) distinguishes three domains of human learning which are not mutually exclusive:

- Cognitive domain which focuses on the intellectual skills
- Affective domain which focuses on the feelings and attitudes
- Psychomotor domain which focuses on the manual skills

5.1.1 Cognitive domain: Bloom's taxonomy

Bloom's taxonomy (Bloom, 1956; Olivier, 2000:92; Van der Horst & McDonald, 1997:37) is a hierarchy of cognitive skills that can be categorised into lower levels and higher levels of cognitive skills and can be applied in outcome-based education. Table 34 summarises Bloom's taxonomy and the associated verbs.

Table 34: Bloom's taxonomy of cognitive skills and the associated verbs

Level	Hierarchy	Explanation of context	Associated verbs
Higher levels of cognitive skills	Evaluation	The ability to judge the value of material for a given purpose and based on certain criteria	Appraise, argue, assess, consider, criticise, decide, evaluate, judge, justify, predict, prioritise, rank, rate, score, summarise, support, value
	Synthesis	The ability to put parts or components together to form a new whole	Arrange, assemble, combine, compose, construct, create, design, develop, formulate, invent, plan, produce, propose, revise
	Analysis	The ability to break down material into the components so that the organisational structures are identified and relations are recognised	Analyse, differentiate, distinguish, categorise, characterise, classify, compare, contrast, differentiate, examine
Lower levels of cognitive skills	Application	The ability to use learned material (i.e. general ideas, rules, methods, principles or theories) in new and concrete situations	Apply, conduct, demonstrate, illustrate, interpret, manipulate, organise, prepare, sequence, show, solve, use
	Comprehension	The ability to grasp the meaning of subject matter	Describe, discuss, explain, give example, identify, indicate, paraphrase, report, summarise, support, tell
	Knowledge	To remember previously learned material or rote learning; remember / recall of specific facts	Define, give, list, match, memorise, name, observe, outline, provide, recall, recognise, repeat, state

The importance of Bloom's taxonomy is in the verb that describes the outcome in the assessment criteria and in the specific outcome of the unit standard. This verb is the verb that the assessment will be done against, and that will determine the competence of the learner as well as the cognitive level on which this competence has been achieved.

5.1.2 Bloom's taxonomy and objectivist related behaviourism

As already stated the purpose of this study is not to provide thorough investigation into learning theories. Rather a brief discussion of the principles of theoretical and philosophical influences is essential to understand the context of this study as well as the integration of the legislative and educational concepts of education, training and development in South Africa.

Bednar, Cunningham, Duffy and Perry (1992:20) describe the epistemology of objectivism as follows:

"Knowledge is some entity existing independently of the mind which is transferred 'inside' the mind."

Behaviourism relates to the stimulus-response activities to condition a learner to make associations and change human behaviour by reinforcement to enhance the transfer of knowledge (Black, 1995).

Content-based education relates primarily to the lower levels of Bloom's taxonomy (knowledge, understanding and application) that emphasise a passive, rote learner through mainly stimulus-response activities in an individual learning environment (Olivier, 2000:113).

5.1.3 Bloom's taxonomy and constructivist related cognitivism

Merrill (1992:102) describes the epistemology of constructivism as follows:

"There is no shared reality, learning is a personal interpretation of the world ... meaning is negotiated from multiple perspectives."

Cognitivism relates to the learner as actively involved and constructing knowledge in a social context to solve real-life problems (Conway, 1997; Van der Horst & McDonald, 1997:213). To promote active learning the educator formulates a problem and asks questions that enhance the construction of knowledge.

Outcome-based education relates to the higher levels of Bloom's taxonomy (analysis, synthesis and evaluation) that emphasise an actively involved and participating problem-solving learner constructing knowledge embedded in prior knowledge through creative interactivities in a co-operative learning environment (Olivier, 2000:114).

5.1.4 Affective domain

Spady (1994:55, 56) lists attitude, attentiveness, perseverance, inspiration, flexibility, maturity, experience, self-concept, confidence, motivation and denies that they are outcomes in their own right, but only critical ingredients to make a successful outcome possible.

However, as mentioned in Table 15 the South African education system refers to 'knowledge, skills and attitudes' as demonstrators of an outcome. Van der Horst & McDonald (1997:36) refer to attitudes as "a personal feeling or belief that influences one to act in a certain way".

In the South African education context it is important to include the holistic view of a human being as from cognitive, affective and psychomotor domains and therefore the affective domain cannot be excluded in the assessment of outcomes of learning.

Kratwohl's taxonomy (Kratwohl, Bloom & Masia, 1994) is a hierarchy of affective skills that can be categorised into increasing levels of complexity in attitudes and emotional responses and can be applied in outcome-based education represented in Table 35.

Table 35: Kratwohl's taxonomy of affective skills

Level	Hierarchy	Explanation of context
Level 5	Characterisation	Learner's behaviour consistently reflects the value systems
Level 4	Organising	Learner develops a value system
Level 3	Valuing	Learner expressing a value orientation
Level 2	Responding	Learner internally motivated to learn
Level 1	Receiving or attending	Learner becoming aware of and sensitive to something

5.1.5 Psychomotor domain

Psychomotor skills can be categorised as reflex and skilled movements and are physical capabilities that require muscle control, hand-eye coordination and are not isolated skills as they often incorporate cognitive and affective issues (Van der Horst & McDonald, 1997:37).

5.2 Co-operative learning

Co-operative learning is imperative to outcome-based education. Co-operative learning is a way in which learners work together as actively participating members of a team to accomplish a common goal. Bellanca & Fogarty (1991:244) propose five critical characteristics of co-operative learning which prevail, as indicated in Table 36.

Table 36: Critical characteristics of co-operative learning

Critical characteristics	Explanation
Face-to-face interaction	Physical arrangement encourages help, share, support
Individual accountability	Each student must contribute to the success of the mastering of the task
Positive interdependence	The group is responsible to each member of the team to accomplish the goal
Social rationale	Learners are taught and coached in social skills
Group processing	Learners reflect on how well they work as a team to complete the task and to improve their teamwork

Co-operative learning skills are not inherent in human beings and learners have to operate and learn how to learn in a co-operative environment (Van der Horst & McDonald, 1997:129).

6 Integration of the legislative framework and educational concepts of South African education, training and development

Embedded in the cognitive, constructivist learning theories, the typical learning environment will involve the hierarchy of outcome-based learning parallel to and in context with the critical cross-field outcomes and specific outcomes as summarised in Table 37.

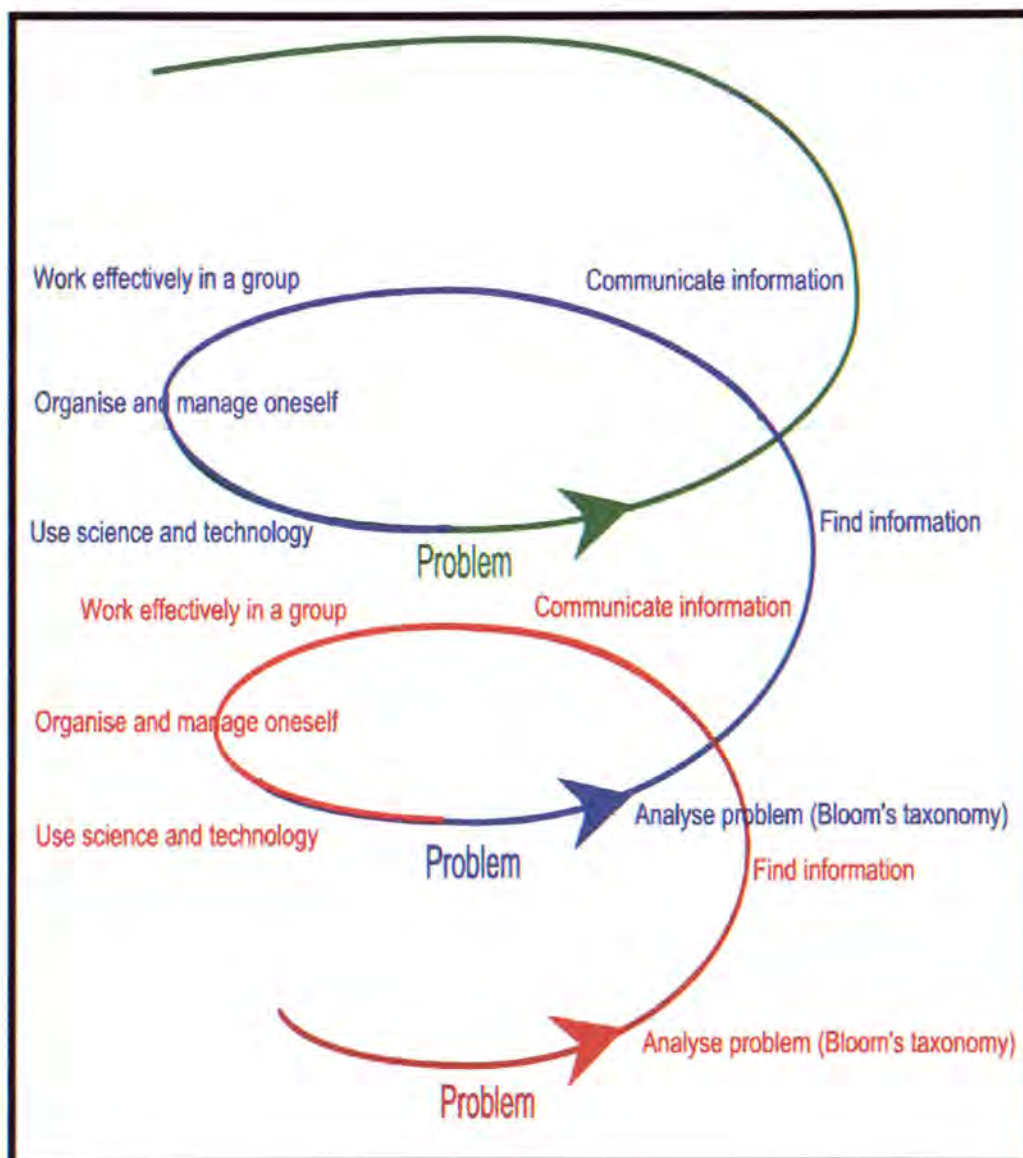
Table 37: Outcome-based learning, critical cross-field outcomes and specific outcomes in context

Specific Outcomes	
Present an authentic and holistic solution ↑ Work effectively with others in a group ↑ Communicate information ↑ Find and collect information ↑ Analyse the statement / problem ↑ Identify / State a problem ↑	Organise and manage oneself and one's activities responsibly and effectively
	Critical cross-field outcomes
	Demonstrate an understanding of the world as a set of related systems by recognising that problem-solving contexts do not exist in isolation Use science and technology effectively and critically, showing responsibility towards the environment and health of others Work effectively with others as a member of a team, group, organisation or community Communicate effectively using visual, mathematical and / or language skills in the modes of oral and / or written persuasion Collect, analyse and critically evaluate information Analyse information Identify and solve problems in which responses display responsible decisions using critical and creative thinking
Learning directed towards competence as described in the specific outcomes with context-related activities for content-related achievement at levels of complexity	

The hierarchy Table 37 is interpreted as follows. For the learner to achieve competence in a specific outcome, the learner will be presented with an authentic problem, or the learner may identify a problem (critical cross-field outcome). To solve the problem the learner will have to analyse the problem (higher cognitive levels of Bloom's taxonomy) and find information to solve the problem (critical cross-field outcome). Once the learner has gathered the information, the learner will communicate the information and work effectively with others in a group to propose a solution (critical cross-field outcome). To propose a solution for the problem the learner has to organise and manage himself / herself, the information and the environment at all times (critical cross-field outcome) and use science and technology to eventually present a solution and proof of competence against the specific outcome. This will ensure development into a responsible national and international citizen.

If the solution to the problem is acceptable, it confirms a new problem and if the solution to the problem is not acceptable, critical reflection will lead to a new proposal. In this way an iterative, cyclic and spiral effect occurs of increasing cognitive involvement of the learner that relates to action research in Chapter 2 (Figure 1). Figure 7 is the author's visual representation of the critical cross-field outcomes embedded in the outcome-based learning environment.

Figure 7: Visual representation of the critical cross-field outcomes embedded in the outcome-based learning environment



Olivier (2000:33) refers to outcome-based education as an holistic approach where learners will demonstrate critical outcomes that include personal, thinking and life skills like critical thinking and problem-solving skills (higher level of Bloom's taxonomy) as well as effective communication skills (co-operative learning environment). Learners will become actively involved, responsible decision makers and successful members of society. Specific outcomes include knowledge (cognitive domain), skills and values (affective domain) (Olivier, 2000:33; Van der Horst & McDonald, 1997:15).

The roots of outcome-based education and constructivism are the same i.e. the prior knowledge of the learner. The implication of this is that the “knowledge” skill in the hierarchy of Bloom’s taxonomy is still the keystone or foundation of all learning (Van der Horst & McDonald, 1997:30).

The implication is that the balance on the continuum of the dichotomy between content-based learning and outcome-based learning needs to be maintained as presented in Figure 8.

Figure 8: The continuum of the dichotomy of content-based and outcome-based learning



To exclude the content-based learning and outcome-based learning from each other, to keep trying to colour education in political colours and blame past negative experiences is detrimental. Although the previous approach was characterised by predominantly content-based education and the present is dominated by outcome-based education, the future will only be secure in the complementary balance of these two extremes.

The sooner the policy makers and departmental in-service training leaders realise this truth, the better it will be for all stakeholders in South African education, training and development. This approach and only this will result in successful life-long learning.

7 Action research and the legislative and educational concepts of education, training and development in South Africa

A cyclic procedure is characteristic of action research [Chapter 2]. This section demonstrates the building up of the action research in the study. Table 38 presents the cyclic events of action research in the context of the legislative and educational concepts of education, training and development in South Africa for 1997.

Table 38: Action research application in this study for 1997

The cyclic, spiral and iterative nature of the action research in this study						
Cycle	Legislative framework and educational concepts in South African education	Learning programme Chapter 4	Facilitation of learning Chapter 5	Evidence of learning: portfolio Chapter 6	Assessment of learning Chapter 7	Quality assurance Chapter 8
1997	Chapter 3					
Idea	Non-existent for any of the participants					
Plan ²²	Not applicable					
Action / Observe	Not applicable					
Reflect / Evaluate	Not applicable					

This was the first year of the introduction of the qualification in a content-based learning environment.

²² As it takes too much space, the Thematic concern, Action group, Rationale for changes, Monitoring process and Evidence collected are left out

Table 39 presents the cyclic events of action research in the context of the legislative and educational concepts of education, training and development in South Africa for 1998.

Table 39: Action research application in this study for 1998

The cyclic, spiral and iterative nature of the action research in this study						
Cycle	Legislative framework and educational concepts in South African education	Learning programme Chapter 4	Facilitation of learning Chapter 5	Evidence of learning: portfolio Chapter 6	Assessment of learning Chapter 7	Quality assurance Chapter 8
1998	Chapter 3					
Idea	To bring about a change that will have an impact on outcome-based learning					
Plan	Informing participants about the legislative structures					
Action / Observe	Introduce participants to educational concepts in outcome-based learning					
Reflect / Evaluate	The information is not enough; background of participants insufficient					

Table 39 indicates the realisation that changes were taking place in the legislative policy and that the application of the educational theories must be considered.

Table 40 presents the cyclic events of action research in the context of the legislative and educational concepts of education, training and development in South Africa for 1999.

Table 40: Action research application in this study for 1999

The cyclic, spiral and iterative nature of the action research in this study						
Cycle	Legislative framework and educational concepts in South African education	Learning programme Chapter 4	Facilitation of learning Chapter 5	Evidence of learning: portfolio Chapter 6	Assessment of learning Chapter 7	Quality assurance Chapter 8
1999	Chapter 3					
Idea	Thinking of alternative strategies to implement outcome-based assessment. Read about assessment and the process and procedures, the legislative requirements					
Plan	Talking to educators and inform them about the changes					
Action / Observe	Encouraging the educators to read and contribute. The legislative structures are still in developmental phase and more information is needed					
Reflect / Evaluate	More reading and planning to be done					

Table 40 indicates the initial strategy to communicate the changes that were taking place in the legislative policy and that the application of the educational theories.

Table 41 presents the cyclic events of action research in the context of the legislative and educational concepts of education, training and development in South Africa for 1998.

Table 41: Action research application in this study for 2000

The cyclic, spiral and iterative nature of the action research in this study						
Cycle	Legislative framework and educational concepts in South African education	Learning programme Chapter 4	Facilitation of learning Chapter 5	Evidence of learning: portfolio Chapter 6	Assessment of learning Chapter 7	Quality assurance Chapter 8
2000	Chapter 3					
Idea	Thinking of alternative strategies to implement outcome-based assessment. Read more about assessment and the process and procedures, the legislative requirements					
Plan	Talking to educators and inform them about the change. Visit the venues and communicate with the learners the strategies, listen to what they have to say and get their input					
Action / Observe	Visits to the venues did not take place due to a number of factors					
Reflect / Evaluate	More reading and planning to be done					

Table 41 indicates the actualisation of the initial strategy to communicate the changes that were taking place in the legislative policy and the application of the educational theories.

Table 42 presents the cyclic events of action research in the context of the legislative and educational concepts of education, training and development in South Africa for 2001.

Table 42: Action research application in this study for 2001

The cyclic, spiral and iterative nature of the action research in this study						
Cycle	Legislative framework and educational concepts in South African education	Learning programme Chapter 4	Facilitation of learning Chapter 5	Evidence of learning: portfolio Chapter 6	Assessment of learning Chapter 7	Quality assurance Chapter 8
2001	Chapter 3					
Idea	Thinking of alternative strategies to implement outcome-based assessment. Read about assessment and the process and procedures, the legislative requirements					
Plan	Talking to educators and inform them about the change. Visit the venues and communicate with the learners the strategies, listen to what they have to say and get their input					
Action / Observe	A very positive response from the educators and learners during visits and conversations, indicating that these talks are essential					
Reflect / Evaluate	This effort was really worthwhile and all participants reacted positively to information about the legislative framework and educational concepts of outcome-based education in South Africa					

Table 42 indicates the positive response from educators and learners to communication of the information about the changes that were taking place in the legislative policy and the application of the educational theories.

Table 43 presents the cyclic events of action research in the context of the legislative and educational concepts of education, training and development in South Africa for 2002.

Table 43: Action research application in this study for 2002

The cyclic, spiral and iterative nature of the action research in this study						
Cycle	Legislative framework and educational concepts in South African education	Learning programme Chapter 4	Facilitation of learning Chapter 5	Evidence of learning: portfolio Chapter 6	Assessment of learning Chapter 7	Quality assurance Chapter 8
2002	Chapter 3					
Idea	No first year learners for the existing qualification					
Plan	Qualification terminates					
Action / Observe	No further training in this qualification					
Reflect / Evaluate	Not applicable					

The FDE(CAE) qualification terminates in 2002 due to the fact that this qualification was an interim registration until all new qualifications according to the SAQA requirements were registered on the NQF. There were no first year registrations for 2002 and the second year learners graduate at the end of 2002.

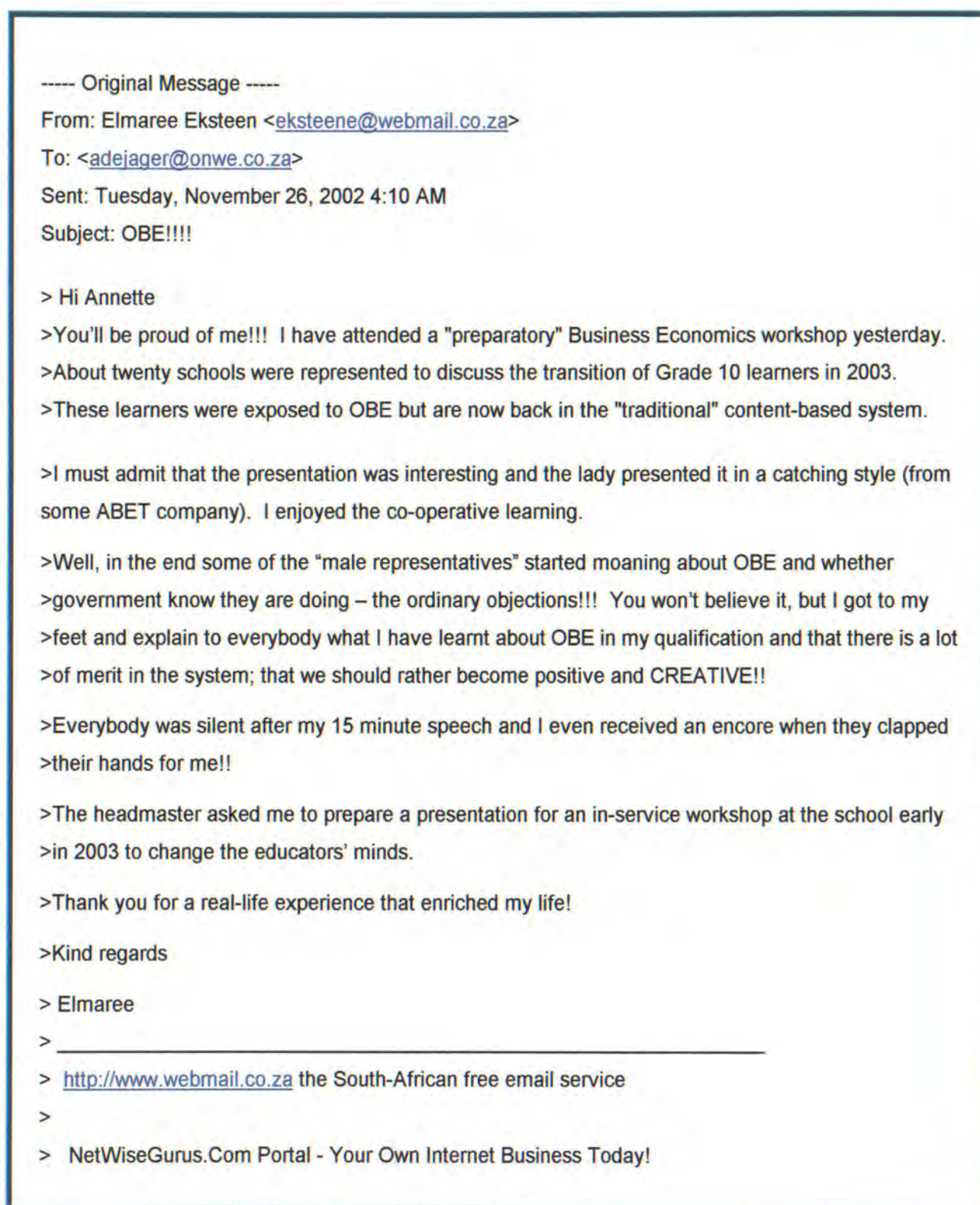
The changes in the education, training and development in South Africa are inevitable. The action research outcomes progress concerning the contribution of the legislative and educational concepts emphasises the need for the following:

- Stakeholders [Chapter 1] are unaware of the impact of the legislative and educational concepts
- Stakeholders have many unanswered questions that must be addressed
- Stakeholders want to be better informed about the transformation process
- Stakeholders need to be informed about the legislative framework and educational concepts pertaining to their involvement
- Stakeholders accept information in a very positive way because it leads to understanding of the situation

This study is an effort to make a positive contribution to the event where learners will know beforehand what is expected of them. In order to achieve a qualification, all stakeholders are provided with clear and accurate information on what a learner has to achieve in accordance to the legislative policies and educational philosophies (Mokhobo-Nomvete, 2000). The learner is assessed against the criteria of the specific outcomes of the qualification or unit standards. The value of the knowledge gained and the changes that have taken place in educators' minds with reference to the integration of the legislative framework and educational concepts because of the exposure to the FDE(CAE) qualification will be best explained and illustrated in the following two real-life examples.

Figure 9 is a copy of e-mail received from an educator explaining her intervention during an in-service training workshop on 26 November 2002 (Eksteen, 2002). The e-mail is not edited for language.

Figure 9: Example of the e-mail on promoting OBE (Eksteen, 2002)



Four educators from two different GET schools in Durban were excited about what they gained from this qualification and designed a presentation for in-service training at their schools. They contacted SAQA for permission to use the SAQA logo on the slide show.

Mr S Isaacs (Executive Officer of SAQA) (2002) faxed them permission, congratulating them on their initiative to promote SAQA and the NQF amongst educators as in Figure 10.


Figure 10: Copy of fax from Mr S Isaacs (2002) granting permission to use the SAQA logo

11. SEP. 2002	9:15	SAQA SSU 27 12 3465909	NO. 316	P. 1
---------------	------	------------------------	---------	------

Postnet Suite 248
Private Bag X 06
WATERKLOOF
0145

659 Pienaar Street
BROOKLYN
0181

Tel: +27 (0) 12 482-0800
Fax: +27 (0) 12 482-0905



Established in terms of Act 58 of 1995

3 September 2002

Ms Lyn Dobson
Kloof Junior Primary School
30 Abelia Road
Kloof
3610

RE: Request to use the SAQA Logo


Your e-mail dated 27 August 2002 has reference.

SAQA appreciates the interest you have shown in its work, and welcomes your initiative to share your knowledge about its work with your colleagues. Therefore, SAQA grants you permission to use the SAQA logo under the following conditions:


1. The logo will be used in accordance with the policy on The Acceptable Usage of the SAQA Trademarks available on our website: www.saqa.org.za.
2. The logo may only be used in your individual capacity for your studies.
3. The use of the logo is limited to the following two instances:
 - 3.1 Use in a Power – point presentation about SAQA, the NQF and ETQAs
 - 3.2 Use in a written assignment
4. The logo will have the word *Facsimile* appearing across it in every instance
5. This is a temporary arrangement meant to assist you in your studies.

SAQA values the contribution of learners in assisting it in developing and implementing the NQF. We appreciate the importance you have attached to the SAQA logo and trust that you will use it judiciously.

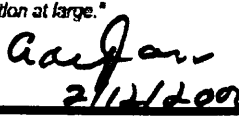
Yours sincerely



SAMUEL ISAACS
EXECUTIVE OFFICER: THE SOUTH AFRICAN QUALIFICATIONS AUTHORITY



SAQA'S MISSION
"To ensure the development and implementation of a National Qualifications Framework which contributes to the full development of each learner and to the social and economic development of the nation at large."




2/12/2002

Figure 11 is a copy of the slide show that the educators from Durban designed to promote SAQA and the NQF amongst educators for which they received permission to use the SAQA logo. The learners reported on the success of the presentation. Note the authenticity, currency, reliability and validity in the date and signatures [Chapter 7] as both copies were taken with permission from a portfolio of evidence [Chapter 5] (Dobson, 2002).

Figure 11: Copy of slide show presentation by educators to promote SAQA and the NQF

RTS 471 1/2002
Powerpoint Slide show SAQA,NQF etc.




South African Qualifications Authority

Department of Education | Department of Labour

SAQA: 29 stakeholders appointed by Departments of Labour and Education


Implement and develop the National Qualifications Framework (NQF) and National Learners Records Database (NLRD)



National Qualifications Framework

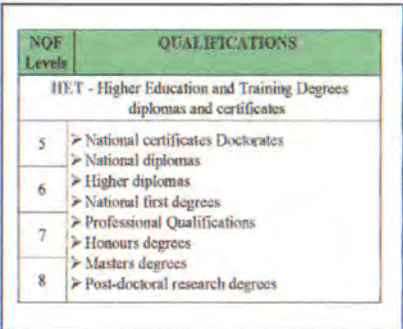
The objectives of the NQF

- To create an integrated national framework for learning achievements.
- Facilitate access to, and mobility and progression within education, training and career paths.
- Accelerate the redress in education, training and employment opportunities.
- Contribute to personal development of each learner and the social and economic development of the South African nation.

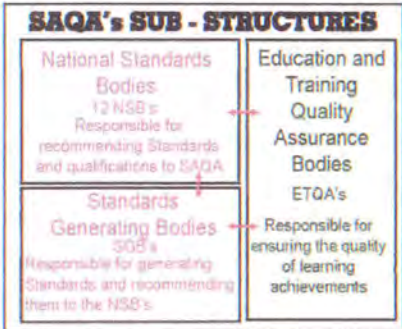


National Qualifications Framework

NQF Levels	QUALIFICATIONS	ABET
GET - General Education and Training Certificate		
1	General Education and Training ➤ National Certificate	Grade 9 Level 1 to Level 4
FET - Further Education and Training Certificates		
2	Further Education and Training	Grade 10
3	➤ National Certificates	Grade 11
4		Grade 12



NQF Levels	QUALIFICATIONS
HET - Higher Education and Training Degrees diplomas and certificates	
5	➤ National certificates ➤ Doctorates ➤ National diplomas
6	➤ Higher diplomas ➤ National first degrees
7	➤ Professional Qualifications ➤ Honours degrees ➤ Masters degrees
8	➤ Post-doctoral research degrees

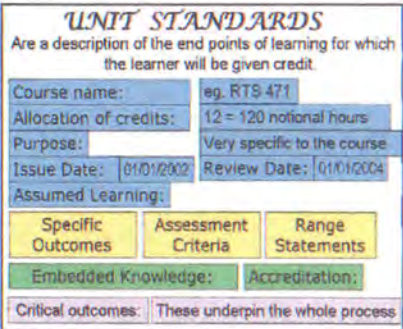


SAQA'S SUB - STRUCTURES

National Standards Bodies (NSB's): 12 NSB's responsible for recommending Standards and qualifications to SAQA

Standards Generating Bodies (SGB's): Responsible for generating Standards and recommending them to the NSB's

Education and Training Quality Assurance Bodies (ETQA's): Responsible for ensuring the quality of learning achievements



UNIT STANDARDS

Are a description of the end points of learning for which the learner will be given credit.

Course name:	eg. RTS 471	
Allocation of credits:	12 = 120 notional hours	
Purpose:	Very specific to the course	
Issue Date:	01/01/2002	
Review Date:	01/01/2004	
Assumed Learning:		
Specific Outcomes	Assessment Criteria	Range Statements
Embedded Knowledge:	Accreditation:	
Critical outcomes:	These underpin the whole process	

Carolyn
 2/12/2002
L. Dobson
H.P. Dobson

I, Lyn Dobson, whose student number is 2133701, declare that I have created this document on 27.10. 2002 for the Module RTS 471.
 Witness: Philip Dobson 9 Minerva Drive Gillitts 3610 Tel: (031) 7673755

Figure 11: Copy of slide show presentation by educators to promote SAQA and the NQF [continued]

RTS 471 1/2002
Powerpoint Slide Show SAQA,NQF etc.

Assessment is:-
A structured process for gathering evidence and making judgements about an individuals performance in relation to registered national standards and qualifications

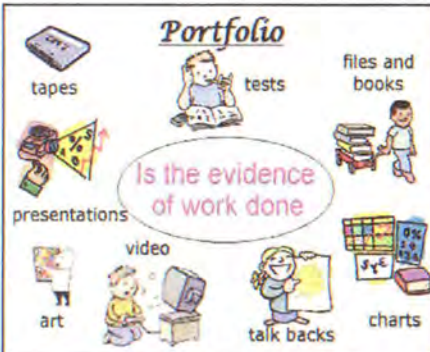
Principles: Validity
Reliability + Fairness
Practicability
= Credibility

Range of Assessment Types

Summative		Formative	
Norm Referenced	Tests Exams	Criterion Referenced	Continuous


- end of program
- determines competence
- takes place with agreement
- specified period
- developmental
- feedback to learner
- supports learning process
- aids future planning
- identifies strengths and weaknesses

Portfolio



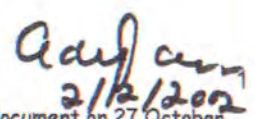
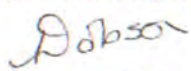
Is the evidence of work done

For More Information on SAQA



FACSIMILE

Get on to the internet <http://www.saqa.org.za>


 2/12/2002

 M.P. Dobson

I, Lyn Dobson, whose student number is 2133701, declare that I have created this document on 27 October 2002 for the Module RTS 471.
 Witness: Philip Dobson 9 Minerva Drive Gillitts 3610 Tel: (031) 7673755

8 Implications

As was pointed out in the assumptions in Chapter 1 this thesis presents a study of the implementation of outcome-based learning. The document analysis therefore does not engage in a critique of the system but seeks to present a snapshot of the phenomenon. It needs all stakeholders to get involved in the process of NQF alignment for qualifications to be recognised by SAQA for a better future for all South African learners.

Olivier (2000:171) states that “learning is not the objective, it is a tool to achieve the objective”. The introduction of a new education, training and development system for South Africa is very ambitious and it will be a dynamic process of development until all stakeholders are well informed and comfortable with the unfamiliar structures and terminology. Outcome-based education is not going to disappear and Olivier (2000:29-43) and Spady (1994:127-135) indicate changes that will happen due to outcome-based education and training:

- Definition of learner learning: away from memorisation to exploration with increasing complexity, learner takes responsibility
- Content design and delivery: away from knowledge and facts towards problem identification and solving; integrated thematic delivery and changing role of teacher
- Assessment methodologies: authentic criterion-referenced assessment with less emphasis on paper and pencil tests to more complex performance portfolios
- Improved communication between stakeholders
- Better ways to do things; do not try do to things that learners cannot do (e.g. behave quietly), but focus on what learners can do, which is: to learn!

The statement in this chapter of the research is that there is a sound educational foundation for outcomes-based education. If outcome-based education is implemented in the correct manner, education in South Africa can only benefit from it, in such a way that the learners will say:

“This course has provided me with valuable theoretical knowledge coupled with practical involvement, which enable the theoretical aspect to be better understood...” (Osman & Kirk, 2001:180).

It is crucial to understand that the South Africa outcome-based education system is not rigid or static, but flexible and adaptable to economic, social and political changes (Norms and Standards for Teacher Education, Training and Development, 1997:49).

Chapter 3 was a review on the legislative and educational concepts underpinning the education, training and development in South Africa. Once these theoretical concepts are understood, the foundation for assessment of learning has been laid. The following chapters address the practical implementation of a qualification adhering to the following:

- The construction of a learning programme in accordance with to the legislative and educational concepts of South African education, training and development [Chapter 4]
- The facilitation of the learning programme [Chapter 5]
- The evidence of competence against the specific outcomes [Chapter 6]
- The assessment of the competence of the learner against the specific outcomes [Chapter 7]