CHAPTER 4

AN OVERVIEW OF THE SOUTH AFRICAN EDUCATION STRUCTURE, OUTCOMES-BASED EDUCATION AND CURRICULUM AND THEIR IMPLICATIONS FOR QUALIFICATION DESIGN

In order to transform the education practices that existed within the country up to 1994, the South African Ministry of Education decided in 1996 to adopt a new education structure (National Qualifications Framework) and philosophy/approach (Outcomes-Based Education). Changes in education structures bring with them rethinking and re-examination of existing structures, philosophies, curricula and their related components. These developments have a particular impact on the design of new and future qualifications. Although changes in qualification structure and curricula are necessary, I argue that such changes also need to be viewed within the total context of education transformation and against the backdrop of international education reforms and trends.

A brief overview of the education framework as envisaged by the National Qualifications Framework (NQF) and the South African Qualifications Authority (SAQA) policy and its conceptual implications for qualification design are presented in this chapter. The underpinning outcomes-based philosophy (OBE), curriculum issues and their implications for qualification design will also be placed in perspective.

4.1 The South African education structure

The past legacy of South African education created several problems, one such problem being the denial of many non-white citizens access to a diverse and quality education (SAQA 2000c). Education authorities nationally questioned the traditional perception of education, which accepted that higher education (up to a first post-secondary qualification level) should be completed by the early twenties. This expectation was simply not possible for many historically disadvantaged people (Blacks, Indians and Coloureds). Coupled with this is the perception that many people would only appreciate the value of pursuing education later in their lives and to deny them access on the grounds of age was unreasonable. Another premise that called for the need for learning to be offered on a lifelong basis was rooted in the notion that the demands of modern economy may well mean that individuals will change career paths several times during their working lives. It is

imperative to allow such learners to re-start learning they have left earlier in their lives and transfer credits from one institution to another. In order to facilitate this process, the South African Qualifications Authority Act was promulgated on 4 October 1995. The act aims "to provide for the development and implementation of a National Qualifications Framework [NQF] and for these purposes to establish the South African Qualifications Authority [SAQA], and to provide for matters connected therewith" (Olivier 1997: 1). The primary responsibility of the NQF is to bring about systemic and curriculum reform through the following objectives (RSA 1995):

- Create an integrated national framework for learning achievements.
- Facilitate access to, and mobility and progression within, education, training and career paths.
- Enhance the quality of education and training.
- Accelerate the redress of past unfair discrimination in education, training and employment opportunities, and thereby
- Contribute to the full personal development of each learner and the social and economic development of the nation at large.

Fundamental to the task of reform are the issues of transformation and the principles of outcomes-based education (discussed later in Chapter 4.1.1 and 4.2 respectively).

4.1.1 Transformation

The use of the term "transformation" in the South African context has political implications. These political implications suggest a need to redress the racial, socio-economic, educational, and a host of other discriminatory practices that were the result of years of apartheid oppression.

4.1.2 Composition of the National Qualifications Framework (NQF)

The need for creating a qualifications framework is not a uniquely South African phenomenon: such frameworks, which influence the South African one, already exist in Australia, Canada, New Zealand and Scotland (SAQA 2000c). South Africa simply aligns itself with international trends.

In my capacity as Chairperson for the Music Standards Generating Body (discussed later in this section) on Higher Education and Training, certain reflections arose with regard to qualification registration. The underlying principles of the NQF on issues of transparency and accountability on the part of providers of education emerged as a result of a lack of clarity regarding the criteria for awarding qualifications. Often within individual institutions, departments espoused assessment procedures leading to the awarding of qualifications on the basis that a shared understanding of assessment criteria existed among members of staff when, in practice, this was not so. Situations where qualifications were being unevenly awarded, both within and amongst departments, became apparent. When comparisons are made of the way entire institutions award qualifications, the situation is even more problematic. Transparency of criteria dealing with the awarding of qualifications at a national level was a necessity. In this context institutions would, in the new structure, be held accountable for the manner in which those criteria are observed and, importantly, for the quality of learning experiences offered to students who need to meet those criteria. A qualifications framework, in this case the NQF, was therefore crucial to this process.

In terms of the SAQA Act, SAQA will establish structures (referred to as bodies) to implement the NQF. The most important of these bodies (discussed in detail later in this section) are (SAQA 2000a):

- Education and Training Quality Assurers (ETQAs) - responsible for monitoring and auditing achievements in terms of national standards and qualifications and to which specific functions relating to monitoring and auditing of national standards and qualifications have been assigned;
- National Standards Bodies (NSBs) - responsible for establishing education and training standards; and
- Standards Generating Bodies (SGBs) – responsible for preparing draft unit standards (discussed later in this section) and qualifications.

All three of these bodies form part of a hierarchical structure, in which the functions of ETQAs are dependent on the relevant NSBs and SGBs.

It is beyond the scope of this research to give a detailed account of the "new" South African education structure, which has been well documented in government (SAQA 2000c) and

other sources[22]. For the purpose of this study I have highlighted aspects pertaining to higher education and their relevance to this study. It should also be noted that much of the language used to describe the NQF and OBE is very specialized and jargonized. Local standards generators have coined the term "SAQA-ish" (Olivier n.d.: i), derived from the acronym SAQA (**S**outh **A**frican **Q**ualifications **A**uthority), to describe this jargon. However, since current curriculum documentation uses "SAQA-ish", which is a trend that seems to be adopted among most education stakeholders, it will be explained and used in the rest of this study.

The rationale for the restructuring of the Education and Training system in South Africa could be viewed against the following backdrop:

- There is a need to create an equitable education and training system, which serves all South Africans. Such a system will need to accommodate those who are in conventional institutions, but also the learning needs of those who have not enjoyed formal education and training.
- In order to achieve significant levels of economic growth and to become internationally competitive, the quality of education and training will need to be greatly improved.
- Education and training have unfortunately been separated, both by the way they are organized and by the way society thinks about them. An approach is needed that makes education and training more flexible, efficient and accessible.

The NQF is the answer to the integration of education and training into a single, coherent and unified approach. Its aim is to unify qualifications in education and training, based on set standards that are nationally applicable. In order to attain these objectives, the NQF clearly requires the use of a unifying organizing principle. The learning outcome has been identified as the one best suited for this purpose. This organizing principle underpins an outcomes-based approach to education (explained in Chapter 4.2). In a sense, this approach demands that institutions of higher learning should produce strategic human resources.

In many respects, this approach can be viewed as challenging the very fabric of institutions of higher learning, especially universities. Universities have up to now often been perceived

[22] See Reference List: E. Dixon (1999: 32-100) and A. van Loggerenberg (2000: 51-113).

as serving individual disciplines rather than society (White Paper on Education and Training 1995). Internationally, however, societies, which fund universities, now require the latter to meet the human resource needs.

The South African Qualifications Authority Act (Act no. 58 of 1995) established the NQF, upon which national standards and qualifications will need to be registered, and the SAQA brief is to oversee this process. The NQF consists of eight levels, grouped into three bands: Level 1 (General Education and Training Band); Levels 2 to 4 (Further Education and Training Band); and Levels 5 to 8 (Higher Education and Training Band). General Education and Training (GETC) deals with compulsory learning and Adult Basic Education and Training. The Further Education and Training Certificate (FETC) is made up of various certificate programmes that are on a par with the school grades ten, eleven and twelve. The Higher Education and Training (HET) band deals with post-secondary (post-school) studies.

The NQF Levels indicate the pegging of qualifications offered by the providers of education. The qualification type can be pegged at any level, according to the requirements of the provider. For example, a certificate qualification can be pegged at Level 8 if a provider of education so desires. The structure of the NQF is illustrated in Table 4.1.

Table 4.1: Structure of the NQF (adapted from Van Loggerenberg 2000: 63)

NQF Level	Band	Qualification Type
Higher Education and Training		
8 7 6 5	Higher Education and Training (HET)	• Post-doctoral research degrees • Doctorates • Masters degrees • Professional Qualifications • Honours degrees • National first degrees • Higher diplomas • National diplomas • National certificates
Further Education and Training Certificate (FETC)		
4 3 2	Further Education and Training	National certificates
General Education and Training Certificate (GETC)		
1	General Education and Training	Grade 9 | ABET Level 4 (Adult Basic Education and Training Levels 1 to 3) National certificates

The process of registering and standardizing qualifications on the framework is made possible through the use of twelve Organizing Fields into which qualifications are grouped. These fields are presented in Table 4.2 (SAQA 2000a: 5):

Table 4.2: NSB Organizing Fields and Sub-Fields (SAQA 2000a: 5)

NSB	Organizing Fields	Sub-Fields
01	**Agriculture & Nature Conservation**	• Primary Agriculture • Secondary Agriculture • Nature Conservation • Forestry and Wood Technology • Horticulture
02	**Culture & Arts**	• Design Studies • Visual Arts • Performing Arts • Cultural Studies • Music • Sport • Film, Television and Video
03	**Business, Commerce & Management**	• Finance, Economic & Accounting • Generic Management • Human Resources • Marketing • Purchasing • Procurement • Office Administration • Public Administration • Project Management • Public Relations
04	**Communication Studies & Language**	• Communication • Information Studies • Language • Literature
05	**Education, Training & Development**	• Schooling • Higher Education & Training • Early Childhood Development • Adult Learning
06	**Manufacturing, Engineering & Technology**	• Engineering and Related Design • Manufacturing and Assembly • Fabrication and Extraction
07	**Human & Social Studies**	• Environmental Relations • General Social Science • Industrial & Organizational Governance and Human Resource Development • People/Human Centred Development • Public Policy, Politics & Democratic Citizenship • Religious & Ethical Foundations of Society • Rural & Agrarian Studies • Traditions, History & Legacies • Urban & Regional Studies
08	**Law, Military Science & Security**	• Safety in Society • Justice in Society • Sovereignty of the State
09	**Health Sciences & Social Services**	• Preventive Health • Promotive Health & Developmental Services • Curative Health • Rehabilitative Services
10	**Mathematical, Physical Computer & Life Sciences**	• Mathematical Sciences • Physical Sciences • Life Sciences (see NSB 01 & 07) • Information Technology & Computer Sciences • Earth & Space Sciences • Environmental Sciences
11	**Services**	• Hospitality, Tourism, Travel, Gaming and Leisure • Transport, Operations & Logistics • Personal Care • Wholesale & Retail • Consumer Services
12	**Physical Planning & Construction**	• Physical Planning, Design and Management • Building Construction • Civil Engineering Construction • Electrical Infrastructure Construction

Music is a sub-field that falls under the Organizing Field NSB 02: Culture and Arts.

The Act provides for the establishment of a National Standards Body (NSB) for each of these Organizing Fields. The primary requirements of the NSBs are to define the boundaries of the field; define a framework of sub-fields; and establish Standards Generating Bodies (SGBs) for each field.

- The representative members (not more than thirty-six) that constitute the NSBs are nominated by organisations that are deemed to be "national stakeholder bodies with a key interest in the field" (SAQA 2000a: 8)(see Footnote 2).

The SGBs (established by the NSBs) are required to (SAQA 2000a:10) :

- Generate qualifications and standards;
- Update and review standards;
- Recommend standards and qualifications to NSBs;
- Recommend criteria for the registration of assessors and moderators or moderating bodies; and
- Perform such other functions as may from time to time be delegated by its NSB.

These SGBs should consist of not more than twenty-five representatives in total, drawn from key education and training stakeholders in the sub-field, various interest groups and specialists. At the time of this research, three SGBs for the sub-field music have been established: Music Industry, General/Further Education and Training, and Higher Education and Training. I presently serve as Chairperson of the Music SGB responsible for Higher Education and Training.

4.1.3 Learning outcomes

A learning outcome is the result of learning; it is an actual demonstration in context of what learners know and can do as a result of their learning. The process of standardizing and registering qualifications on the NQF will only be possible once all qualifications are registered. These qualifications have to list the outcomes learners will have to attain in order for the applicable qualification to be granted.

With regard to higher education, teaching traditionally focused on areas of content knowledge, which was assumed to be necessary for students to perform the higher order tasks expected of graduates.

With regard to OBE, this assumption is questioned. Simply knowing or understanding discipline-based content alone does not enable a person to do things; instead, students actually have to be taught to do those things. Therefore an outcomes-based approach would involve using the discipline in order to educate students to achieve these learning outcomes. The pure understanding of disciplinary content is not an outcome. Outcomes-based education implies that everything (curriculum design, planning, teaching, assessing, writing support materials) will be developed and organized around the intended learning outcomes at the end of a learning programme.

At this point it is useful to briefly tabulate the reality of the present education context and the vision of the new education structures in South Africa. Table 4.3 is a synthesis of existing institutional reality and policy intentions.

Table 4.3: Comparison of the old and new education systems in South Africa

OLD	NEW
Exam/tests	Continuous Assessment
Rote learning	Understanding, active learning
Passive learners	Active problem-solving learners
Teachers as drivers	Teachers as facilitators
Timetables rigid	Timetables flexible - notional time
Subjects/disciplines	Learning areas
Pupils/students	Learners
Teachers	Educators
Cross-curricular	Integrated
Programme organiser	Themes
Aims/objectives	Outcomes

One of the complaints from most employers with regard to graduates has been their lack of ability to work independently and to solve problems. The move towards an outcomes-based approach is an attempt to ensure that competencies relating to problem solving and independence are developed within institutions of higher education. The need to teach students how to solve problems will involve teaching them how to identify a problem, generate diverse solutions to it, test those solutions against one another and make recommendations on the basis of these tests.

Achieving the above necessitates a shift away from disciplinary content and promotes student interaction with each other and with the educators. The disciplinary content simply becomes a medium students use to achieve the outcomes of the course.

Using learning outcomes as the organizing principle requires that descriptors should be written for all levels of the framework. The function of these descriptors is to order qualifications across all fields within the education system. Table 4.4, suggested by SAQA (2000d: 9), can be used as an example to describe the scope of learning at all eight levels of the framework.

Table 4.4: Scope of learning according to the NQF (SAQA 2000d: 9)[*sic*]

Level	Knowledge	Information Processing	Problem Solving
1	Narrow ranging	Recall	
2	Basic Operational	Basic processing of readily available information	Known solutions to familiar problems
3	Some relevant theoretical	Interpretation of readily available information	A range of known responses to familiar problems based on limited discretion and judgement
4	Broad knowledge base incorporating some theoretical concepts	Basic analytical interpretation of a wide range of data	A range of sometimes innovative responses to concrete but often unfamiliar problems based on informed judgement
5	Broad knowledge base with substantial depth in some areas	Analytical interpretation of a wide range of data	The determination of appropriate methods and procedures in response to a range of concrete problems with some theoretical elements
6	Knowledge of a major discipline with depth in more than one area	The analysis, reformatting, and evaluation of a wide range of information	The formulation of appropriate responses to resolve both concrete and abstract problems
7	Specialised knowledge of a major discipline	The analysis, transformation, and evaluation of abstract data and concepts	The creation of appropriate responses to resolve contextual abstract problems
8	In-depth knowledge in a complex and specialised area	The generation, evaluation, and synthesis of information and concepts at highly abstract levels	The creation of responses to abstract problems that expand or redefine existing knowledge

On examining the above table, it is useful to bear in mind that Level 6 is equivalent to a bachelor's degree, Level 7, master's degree and Level 8, a doctoral degree. Descriptors in music, specifically, have not as yet been written.

Translating the above into outcomes, a bachelor's candidate, for example, would need to be able to display knowledge of a major discipline with depth in more than one area; analyze, reformat and evaluate a wide range of information; and formulate appropriate responses to

resolve both concrete and abstract problems. Current bachelor's programmes require candidates to do all these things.

Upon registering qualifications on the NQF against descriptors (see Chapter 5.1.2.9), it will be possible to establish that institutions are indeed meeting the standards they claim for their qualifications and that they are offering their learners the learning experiences which allow them to achieve these standards.

One of the main criticisms of the NQF at higher education level is that the initial requirement that learning outcomes should be written for all courses and modules leading to qualifications, reduces learning to small units, which are antithetical to the goals of universities in particular. Due to this criticism, agreement has been reached between the various education role players that universities will be allowed to register whole qualifications on the framework. This implies, for example, that outcomes must be written for the "whole" Bachelor of Music (BMus) and Bachelor of Arts (BA) degrees and that the whole degree will then be registered.

Learning outcomes, which are central to the OBE approach, can be classified into three types:

- Critical outcomes, which are designed to inform all teaching and learning and are embedded in all qualifications, from school through to university (see Chapter 4.2.4);
- Specific outcomes which are contextually demonstrated knowledge, skills and values; and
- Exit level outcomes, which are the contextually demonstrated end-products of the learning process.

These outcomes have to be achieved in order for learners to qualify for a credit, unit standard, or qualification (explained below in Chapter 4.1.4). To place current research into the broad education context, issues pertaining to SAQA guidelines with regard to qualifications will now be discussed.

4.1.4 Qualification design

Qualifications are the pillars around which learning programmes are designed. These qualifications are made up of clusters of registered unit standards that meet professional, entrepreneurial and institutional needs. They therefore can be "defined as a combination of learning outcomes with a defined purpose or purposes, intended to provide qualifying learners with applied competence and a basis for further learning" (SAQA 2000a: 45).

4.1.4.1 The qualification

In order for qualifications to be registered on the NQF, certain criteria (SAQA 2000a: 46) need to be satisfied. A qualification must

- Represent a planned combination/sequence of/other learning elements (courses/modules) that has clear purpose/s and which will provide qualifying learners with an overall outcome of demonstrable integrated advancement in education and training.
- Comply with the NQF's objectives including access, mobility, progression and quality. Here it is necessary to show that the critical outcomes have been included to enjoy a meaningful, integrated qualification that meets the challenges of lifelong learning and that has currency.
- Be internationally comparable, where applicable.

According to NSB regulations (SAQA 2000a: 45), two types of qualifications are catered for:

- A qualification based on exit level outcomes and associated assessment criteria; and
- A qualification based on unit standards.

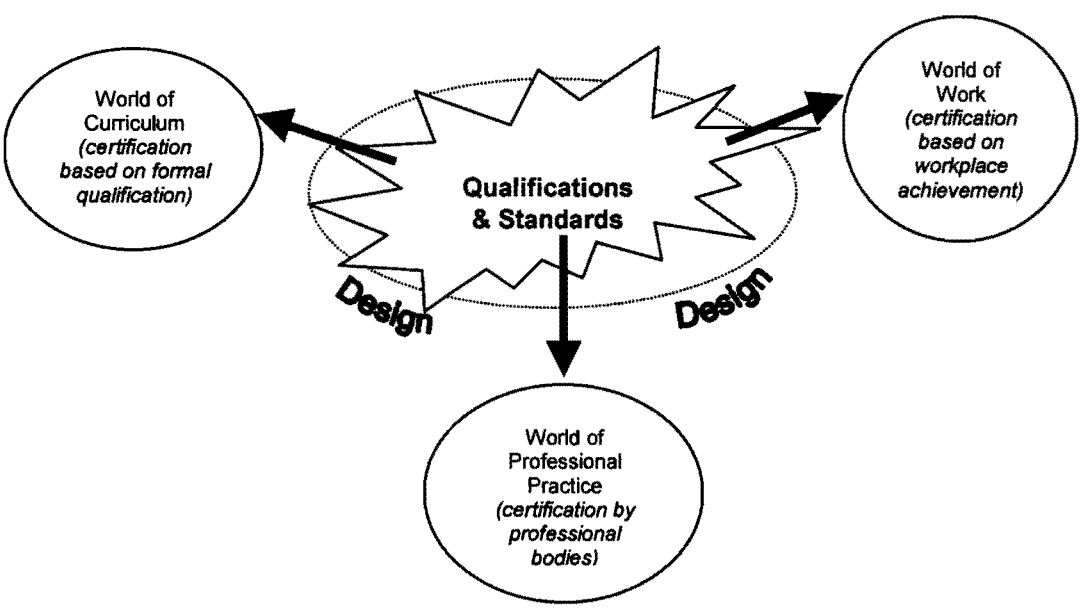
The present research focuses on designing a qualification that is based on exit level outcomes. Discussions amongst the various stakeholders in higher education suggest that there is consensus with regard to qualifications based on exit level outcomes instead of unit standards-based qualifications. By adopting the exit level outcomes approach in this study, flexibility of progression within the education structure is facilitated, whereby the learner is allowed upward mobility (by continuing one's study toward a higher qualification) and transferable skills within the education spectrum toward a specialized qualification in Music Technology or other qualifications (Bachelor of Arts, Bachelor of Science, Bachelor of Engineering).

The qualifications based on exit level outcomes (see Chapter 1.9) and unit standards (explained later in Chapter 4.1.4.3) are used primarily as (SAQA 2000a: 38):

- A guide to learners;
- A guide to educators who are responsible for preparing the learning material;
- A description of the endpoints of learning (the targets towards which learning should aim);
- Guidelines as to what needs to be assessed, its context and the standards of performance needed; and
- A means of recognising achievements.

From the above information it is apparent that qualifications and unit standards are of central importance for the development of learning programmes and assessment activities. In order to meet the challenge facing the NQF, an integration of both education and training (labour) needs to be achieved. In this manner a balance between theoretical and vocational skills can be accomplished. The design of future qualifications and unit standards therefore needs to be the result of a consultative process between all the necessary stakeholders. Figure 4.1 illustrates this interactive process.

Figure 4.1: The anchoring of the worlds of curriculum, professional practice and work to the qualification design process (adapted from SAQA 2000a: 40)



Should standards be exclusively written in any one of these worlds (see Figure 4.1), there is a possibility that the would not be applicable to the other worlds. Qualifications and standards (centre of the diagram) act as the anchor to which the other worlds attach the design of their practices. The design layer lies between the standards and the world of practice. Professionals in curriculum design use standards for curricula, but the standards themselves are not curricula. Professionals in the workplace use standards to design work-based programmes, but the standards are not these programmes; professional certification bodies will define their licensing requirements against standards, but these standards are not themselves licensing prescriptions (SAQA 2000a: 40).

Historically, standards were written in one world. This has been the case in Music at institutions of higher learning (particularly universities)(see Chapter 2.5). A challenge facing the National Qualifications Framework is: if standards were to be written in only one of the worlds in Figure 4.1, then they will not be applicable to the other two worlds, resulting in three separate frameworks: worlds of work, curriculum (see Chapter 4.3), and professional practice (SAQA 2000a: 40). It follows that the transition that is currently adopted by most institutions of higher learning in re-structuring existing programmes, according to a generic template within the framework of traditional OBE (see Chapter 4.2.1), is insufficient.

All three worlds (see Figure 4.1) will have to comply with national standards, albeit for different needs. The world of work needs standards for various purposes, which could range from performance appraisal, to recruitment criteria, to career "laddering", to industrial bargaining. In the world of curriculum, practitioners need standards against which curricula can be written. The world of professional practice requires standards to define competent practice so that professionals can be licensed to practise in South Africa (SAQA 2000a: 37).

4.1.4.2 The credit system

The use of credits results in horizontal and vertical mobility within the qualifications framework. These credits are accumulated at various stages within the education structure: that is, at a specific school level or by means of acquiring certain competencies that comply with the related unit standard and/or qualification. The level indicators used, correspond to those stipulated by the NQF.

The credit system used by SAQA (SAQA 2000a: 6) is based on the principle that one credit equals ten notional hours of learning. These notional hours of learning refer to the learning time required by the average learner to attain the required outcomes. This includes contact time, time spent in structured learning in the workplace, individual learning and assessment.

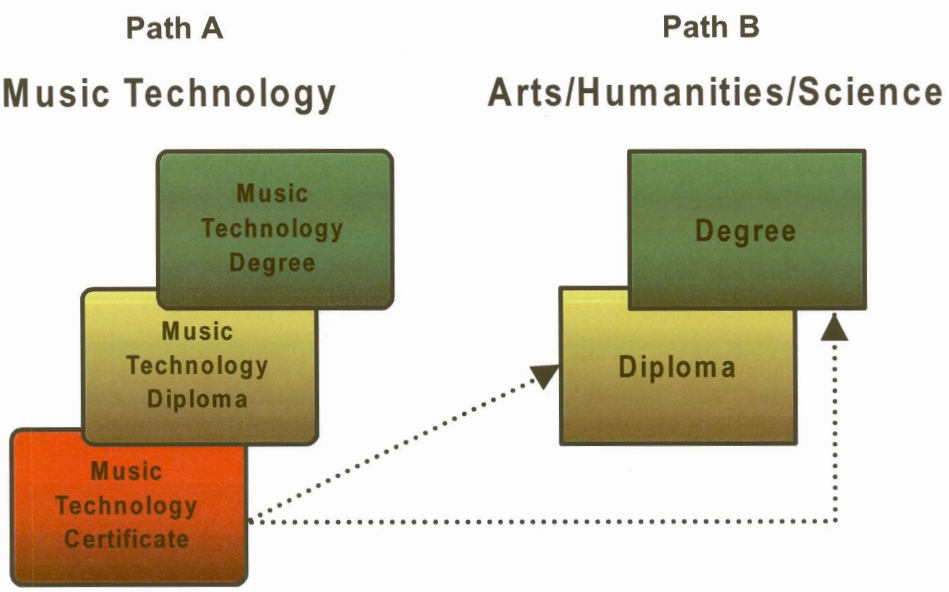
Qualifications need to be made up of at least 120 credits with a minimum of seventy-two credits at or above the level at which the qualification is to be awarded. The remaining credits (forty-eight) may be obtained below and/or above the level at which the qualification is to be awarded. SAQA (2000a: 95-96) proposes the following with regard to post-secondary education:

Table 4.5: Credit allocation as per whole qualification (SAQA 1997: 15-16)

National Certificate	Minimum of 120 credits, at least 72 of which are at or higher than the level of the certificate
National Diploma	Minimum of 240 credits, at least 72 of which are at Level 5 or higher
National Degree	Minimum of 360 credits, at least 72 of which are at Level 6 or higher

The design of the qualification in Music Technology, proposed in this study, is pegged at NQF Level 5, being the national certificate level. The design process at this level allows the qualification to lend itself to two differing qualification paths (see Figure 4.2): a certificate in its own right which serves as the foundation qualification toward a specific qualification (degree) in Music Technology (see Path A); and a certificate programme that could be treated in its entirety as an area of study within a more generalized programme in music, such as a BMus or BA programme (see Path B).

Figure 4.2: Draft qualification structure for Music Technology



The flexibility in the Music Technology certificate qualification/programme satisfies two key NQF guiding principles, those of transferability and broad focus (see Table 4.7), in terms of the qualifications design.

4.1.4.3 Unit standards

Unit standards are end-statements of the achievement of certain competencies that also form the foundation for possible unit standards-based qualifications. Their purpose is to provide an assessor document, the foundation to develop learning programmes and an educator's and trainer's guide for preparing learning materials. These unit standards describe the specific context-related outcomes that need to be attained by learners. As learners meet the requirements that indicate that they have mastered specific outcomes described in a unit standard, they accumulate credits toward a desired qualification. Once a minimum number and combinations of these credits have been accumulated, learners attain the level of competence in a particular Learning Area and receive a qualification (DoE 1996: 26).

These unit standards are used to describe the smaller manageable outcomes that make up the main outcomes. In order to achieve unit standards or qualifications, learners will need to

follow a course or learning programme. Education and Training Quality Assurers (ETQAs) subject the learning programmes to quality assurance. Since learning programmes are provider-specific against a particular qualification or standards, they cannot be registered on the NQF - only unit standards and qualifications can be registered.

4.1.4.4 Range statements

Range statements indicate the complexity of the critical, specific and exit level outcomes. These range statements also refer to the technology involved, dimension, scope, depth and other parameters associated with the unit standard (Olivier n.d.: 25-26). The relationship between qualifications, unit standards and outcomes is illustrated in Figure 4.3.

Figure 4.3: The relationship between qualifications, unit standards and outcomes (adapted from Van Loggerenberg 2000: 68)

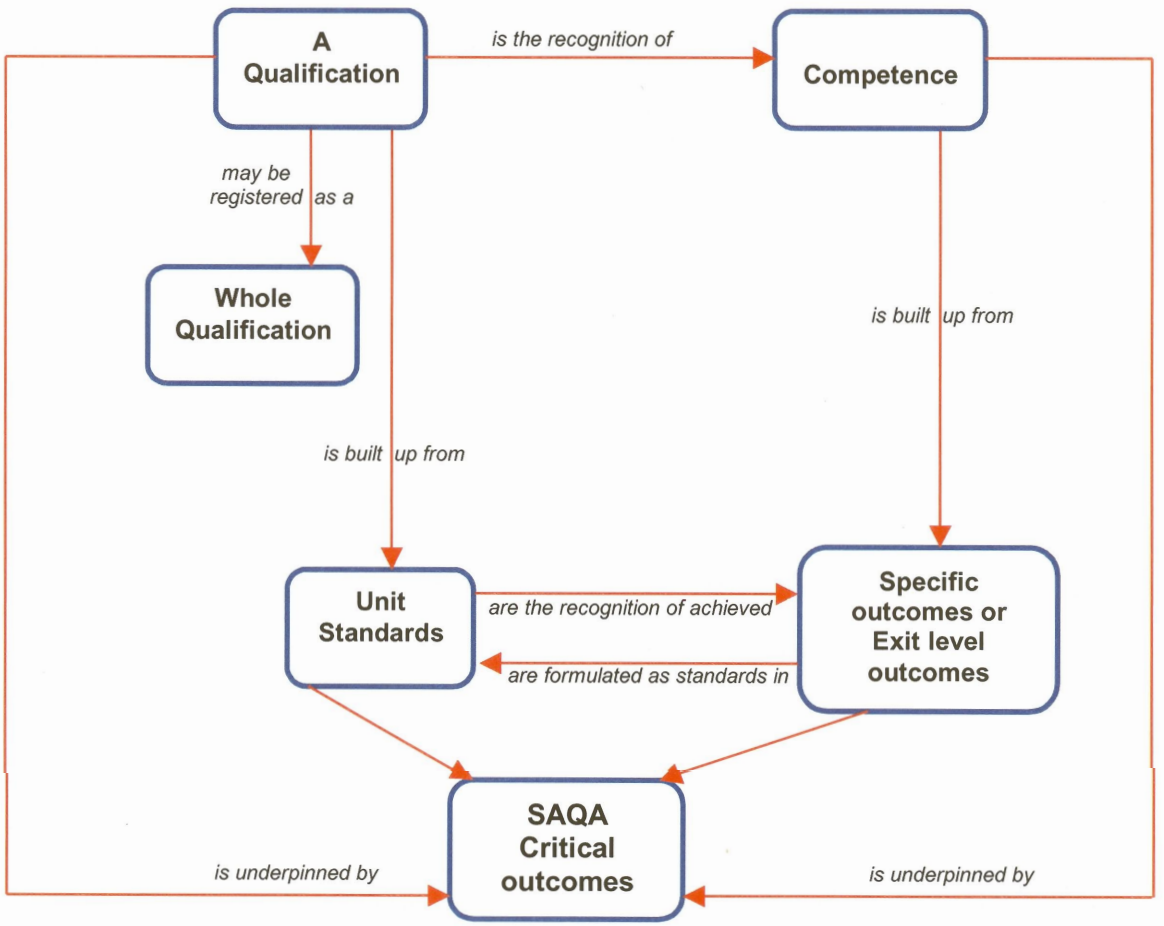


Figure 4.3 presents the relationship between qualifications, unit standards and outcomes, which form a core aspect within the new education structure. The vital components within this structure that have direct implications for qualification design will be contextualized in the qualification design in Music Technology in Chapter 5.3.

4.1.4.5 Composition of a qualification

All qualifications are composed of three primary learning units, namely Fundamental, Core and Elective units.

Table 4.6: Composition of a qualification (SAQA 2000b: 42-43)

Fundamental learning	Core learning	Elective learning
Refers to learning which "forms the **grounding** or basis needed to undertake the education, training or further learning required in the obtaining of a qualification".	Refers to learning, which is "compulsory learning required in situations **contextually relevant** to the particular qualification".	Refers to learning that is a "selection of additional credits at the level of the NQF specified, from which a choice may be made to ensure that the **purpose** of the qualification is achieved".

A simpler explanation of the three learning areas would be: Fundamental learning refers to the learning that forms the basis for future study. In terms of the learning needs, fundamental learning may or may not be fundamental to the purpose of the qualification. Core learning implies the transferable learning widely applicable to the field or discipline. Elective learning refers to more specialized learning. In most instances, "elective" and "specialization" are often used in the same sense.

4.1.5 Guiding principles in qualification design

The NSBs and SGBs are ultimately responsible to SAQA for the setting of national standards. Both these bodies have specific functions within the NQF. The NSBs are responsible for establishing education and training qualifications and/or standards and the recommendation of registration of qualifications, whereas the SGBs are only responsible for the generation of qualifications and/or standards. These bodies need to adhere to the principles that govern their function. Since the design of a new qualification is the focus in this study, the procedures of the SGBs in generating standards will be followed. Table 4.7 lists the guiding principles in qualification design for the SGBs.

Table 4.7: Guiding principles in qualification design (SAQA 2000a: 14-15)[*sic*]

Consultation	SGBs must consult widely with those who have an interest in their area.
Relevance	Qualifications and standards must be relevant to the requirements and needs of all their users.
Transferability	SGBs must promote the recognition of transferable skills to assist learners who may need to change their learning or career direction.
Efficiency and Accessibility	SGBs must set and maintain standards, and wherever possible keep costs down.
Innovativeness	Standards generation is a dynamic process. SGBs must accommodate innovation that derives from changing technology, new products, services, markets, skills and knowledge in their specialist areas.
Broad Focus	SGBs must consider the impact of their planned outputs on all levels of the NQF. Although the focus of an SGB's standards generation may be at a particular level, the implications for all levels must be considered.
Minimal Duplication	It is a fundamental principle of the NQF that every qualification and standard will be unique. If a standard is to be used in several qualifications, users concerned must agree on its form, and not create their own versions.

The qualification design in this study will aid in fast-tracking the registration of Music Technology as a qualification onto the NQF. The guiding principles and structure of qualification design required by SAQA contribute towards the construction of a conceptual framework that will be used to design the qualification in Chapter 5.3.

4.2 Outcomes-based education (OBE) and critical outcomes

The NQF is entrusted with bringing about systemic, as well as curricula change. William Spady (1994: 94-96), an American educationist who is regarded in education circles as one of the fathers of the OBE approach, makes the point that outcomes-based education is not only about curriculum change. It is about changing the nature of how the education system works, which is the guiding vision, a set of principles and guidelines that frame the education and training activities that take place within a system. Since OBE forms the cornerstone of education transformation in South Africa, I shall attempt to provide some insight into what education implications this philosophy has on qualification design.

OBE and international constructs attempt to respond to the challenges of a

> relative failure of their respective workforces to cope with changing economic realities and to compete on world markets. This concern has led to a re-examination of the aims and objectives of education, and, subsequently, to reform of curriculum and assessment (Black & Atkin 1996: ix).

In the South African context, OBE has been adopted as the approach for reform to address broader political, socio-economic and vocational issues. OBE in itself has many different forms. A danger that arises with these different forms is that old curricula, with their apartheid baggage, could be dressed up in OBE jargon. This is partly due to the generic use of the term OBE by the Ministry of Education, as well as by educators. Spady distinguishes between three broadly defined approaches: traditional, transitional and transformational OBE (Killen 1998: 2). The differences between these forms of OBE will now be explained.

4.2.1 Traditional OBE

Traditional OBE uses the existing curriculum as the starting point to formulate outcomes. This implies that outcomes are generated from the existing curriculum. Similar to objectives, outcomes are written from the existing syllabus content in traditional subjects. In this understanding of OBE, education planning and implementation are based on subject matter categories, also referred to as a disciplinary approach (Mode 1 knowledge production). The long-term outcomes of learning and how they relate to each other in society are not clearly discernable. These outcomes are therefore not generalizable to other learning areas or contexts outside of school (Spady 1994:18-19). My experience with the interim registration of qualifications on the Higher Education Music SGB reveals that most post-secondary education institutions that offer Music qualifications in South Africa have merely applied traditional OBE, re-organising their existing learning programmes according to the given templates required by SAQA. Since these learning programmes have been in place for some years now, they have been granted interim registration until 30 June 2003. In the case of most of these learning programmes, a generic model has been used to restructure existing programmes in order to obtain interim registration.

4.2.2 Transitional OBE

Transitional OBE focuses on higher order competencies and their role in relating and potentially integrating unconnected, content-focused curriculum areas in education planning and implementation. Spady (1994: 193) suggests the term "interdisciplinary" (Mode 2 knowledge production) to characterise this approach. Less emphasis is placed on particular kinds of knowledge and information because the curriculum design processes start with outcomes and not with the existing syllabi in mind. These outcomes are "relatively complex

... are generalizable across content areas and require substantial degrees of integration, synthesis, and functional application" (Spady 1994: 19).

4.2.3 Transformational OBE

A curriculum designed around long-term outcomes, which relate to the future life performance roles of learners, is referred to as transformational (Spady 1994: 18). This radical option, and perhaps the most complex of the three types, has been adopted in South Africa (Killen 1998: 2). According to the principles of the transformational OBE approach, the existing education system and curriculum impede the development of a new society and do not meet the long-term real life needs of the learners.

The critical outcomes (see Chapter 4.2.4) that underpin this approach, describe the package of competencies in terms of knowledge, skills, attitudes and values, which learners will need in order to be lifelong learners. Spady (1994: 19) emphasises that transformational outcomes "require the highest degrees of ownership, integration, synthesis, and functional application of prior learning because they must respond to the complexity of real life performances". Killen (1998: 26-27) makes it very clear that these outcomes are performance abilities and not just content, scores, averages, percentages or credits, and stresses that these outcomes must drive the curriculum, not vice versa. National Government in South Africa proposes outcomes driving curriculum and training and the transformational OBE approach to bring about education transformation. Such transformational OBE is adopted in the design of the qualification in Music Technology offered in the present study.

By striving to integrate education and training into a single, coherent and unified approach, it should be possible for all learners to achieve national qualifications through a variety of mechanisms and delivery systems. This integration principle is to be achieved by means of the NQF (SAQA 2000a: 2-3). "The important thing to remember about the NQF is that its intention is to bring about transformation" (SAQA 1997: 2). In other words, it is not just a classification system for qualifications.

4.2.4 Critical outcomes

One of the most significant ways in which SAQA has changed the requirements for curriculum design is through the development of a set of critical outcomes. The critical outcomes or critical cross-field outcomes adopted by SAQA support all learning programmes and curricula in South Africa. These outcomes express the characteristics and competencies that all South African learners should demonstrate, regardless of their age, sex, profession and status in society (Killen 1998: 7).

There are eight critical outcomes of which the eighth includes "developmental outcomes" (DoE 1997: 10). These outcomes, when reached, will ensure that learners acquire the knowledge, competencies, attitudes and values that will allow them to contribute to their own success, as well as to the success of their family, community and nation as a whole (DoE 1997:13). These critical outcomes are, as the name suggests, not dependent on or restricted to a specific learning context. They represent the knowledge, competencies, attitudes and values, which are flexible and transferable from one context or problem situation to another. In these outcomes are embedded the seeds for cultivating lifelong learning ability. They are the formulations of the life roles to be performed by learners.

The original eight critical outcomes proposed by SAQA (DoE 1997: 16) are reduced to seven in the *Discussion document* (Technical committee 1997: 82). The critical outcomes state that the learner will

- Identify and solve problems in which responses show that responsible decisions using critical and creative thinking have been made.
- Work effectively with others as a member of a team, group, organisation or community.
- Organize and manage oneself and one's activities responsibly and effectively.
- Collect, analyse, organize and critically evaluate information.
- Communicate effectively using visual, mathematical and/or language skills in the modes of oral and/or written presentation.
- Use science and technology effectively and critically, showing responsibility toward the environment and health of others, and
- Demonstrate an understanding of the world as a set of related systems by recognizing that problem-solving contexts do not exist in isolation.

The developmental outcomes should be read in conjunction with the above listed critical outcomes. To enhance the full personal development of a learner, as well as social and

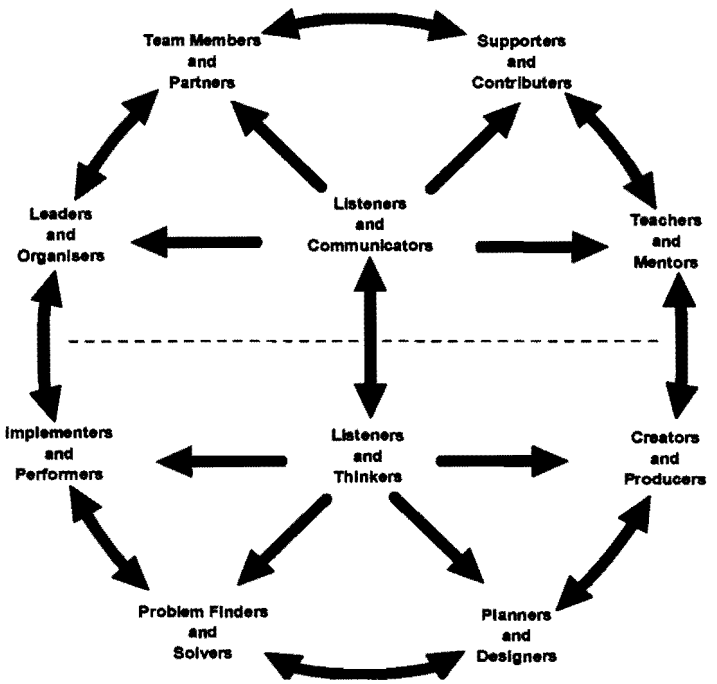
economic development *per se,* any learning programme needs to make an individual aware of the importance of the following outcomes (Technical committee 1997: 82):

- Reflect on and explore a variety of strategies to learn more effectively.
- Participate as responsible citizens in the life of local, national and global communities.
- Be culturally and aesthetically sensitive across a range of social contexts.
- Explore education and career opportunities.
- Develop entrepreneurial opportunities.

These critical and developmental outcomes are instrumental in realising the vision of South African education, which is to prepare individuals to become lifelong learners. They form the backbone of transformational OBE. The NQF is the system of progression and articulation in education, which will make continued learning possible, but the critical outcomes describe the competencies needed to sustain a culture of lifelong learning. These outcomes encapsulate the real life roles that learners have to perform. Spady (1994: 21) suggests ten life performance roles that require complex applications of many kinds of knowledge and all kinds of competencies as people confront the challenges surrounding them in their social systems. These ten life performance roles are divided into two groups of five each (suggested by the dotted line in Figure 4.4). He suggests that five of the life performance roles deal with social and interpersonal performance roles that inherently involve interactions among people (Spady 1994: 69-71). These roles are indicated in Figure 4.4 above the dotted line (Spady 1994:70):

- Listeners and communicators are to comprehend and express ideas, information, intention, feeling and concern for others in ways that are clearly understood and appreciated.
- Educators and mentors enhance the thinking, skills, performance orientation and motivation of others through the mediation they provide, the counsel they give, and the example they set.
- Supporters and contributors invest time, ideas and resources to improve the quality of life of those around them.
- Team members and partners contribute their efforts to collaborative endeavours and seek agreement on goals, procedures, responsibilities and rewards, setting aside personal preferences, anticipating obstacles, and supporting the participation of others to achieve the results.
- Leaders and organizers initiate, coordinate, and facilitate the accomplishment of collective tasks by perceiving and defining intended results, determining how they might be accomplished, anticipating roadblocks, and enlisting and supporting the participation of others to achieve the results.

Figure 4.4: Fundamental life performance roles (Spady 1994: 69)



Below the dotted line in Figure 4.4 are performance roles, inherently more technical and strategic in character. These are the roles that individuals potentially should carry out entirely on their own, but which also might involve others. These include (Spady 1994: 70-71):

- Learners and thinkers develop and use cognitive tools and strategies to translate new information and experiences into sound action. They might use their repertoire of knowledge and strategies to extend their capacities for successful action by assimilating, analysing and synthesizing new ideas and experiences.
- Implementers and performers apply basic and advanced ideas, information, skills, tools and technologies as they carry out the responsibilities associated with all life roles.
- Problem finders and solvers, anticipate, explore, analyse and resolve problems by examining their underlying causes from a variety of perspectives and then develop potential solutions to them.
- Planners and designers develop effective plans, methods, and strategies for anticipating and resolving issues and problems and for charting new courses of action.
- Creators and producers seek new possibilities for understanding or doing things and who translate those possibilities into original, workable products or processes that change the working or living environment.

Spady's life roles are similar to the critical cross-field outcomes that aim to prepare individuals to become lifelong learners. The critical outcomes in South Africa represent these life performance roles.

From the explanation in this section (Chapter 4.2.4) it is apparent then that, when one refers to OBE in the South African context, one is actually referring to transformational OBE.

With transformational OBE as the education philosophy that shapes the education structure for South Africa, the design of all new and existing qualifications needs to be reviewed. Designers of new qualifications need to take into account the new education policy and position these qualifications within the broader international and national context of curriculum and curriculum development.

Education reform has generally been coupled with political change; this is a phenomenon that has occurred over years in many other countries. Therefore, the political and education changes manifesting themselves in South Africa are not unique. What is significant, though, is that education reforms need to be interpreted and critically evaluated from the broader perspective of curriculum theory.

The transformation of curriculum generally has serious implications for every dimension of education and the role-players that deal with curriculum. Learning institutions in South Africa seeking to change their curriculum practice need to take cognisance of what government is trying to achieve through its education reforms. Since this research deals with the design of a new qualification, issues pertaining to curriculum and the implications thereof will now be examined.

4.3 Definition of curriculum

Since education is everybody's business, the idea of curriculum is elusive and epistemologically ill defined. There does not seem to be any consensus as to where curriculum matters end and the rest of education begins.

As long as thirty years ago, Rule (Lewy 1991: 26) identified some 119 different definitions for curriculum that may be delineated along the lines of the specific and prescriptive versus

the broad and general (Ornstein & Hunkins 1998: 10). It is not my aim to trace the many changes of meaning that the concept "curriculum" has undergone, but to determine its meaning in the context of NQF, OBE and C2005. For this reason I have used two definitions to construct a working definition of curriculum for this study. The first definition by Van Rooy describes curriculum as "the interrelated totality of aims, learning content, evaluation procedures and teaching-learning activities and opportunities and experiences which guide and implement the didactic activities in a planned and justified manner" (1996: 92).

The second even broader definition stated in the document issued by the South African national Department of Education describes curriculum as "everything planned by educators that will help develop the learner", including "everything that influences the learner, from the educators and the learning programmes, assessment criteria and extra-mural programmes, right down to the physical buildings" (1997: 10). These definitions suggest that curriculum is a planned course of study intended to bring about a behavioural change. Both definitions ignore the political change and transition in South Africa since 1995. This political change and transition resulted in a movement away from Christian National Education, as was epitomized by the apartheid government, toward OBE, which is the policy of the current government. The transition from one to the other deliberately focuses on correcting the imbalanced education, social and economic sectors maintained by the previous government prior to the 1994 democratic elections in South Africa. The international context in both definitions is also ignored as a significant aspect of change. Finally, curriculum needs to be seen as the sum total of all the activities that happen in a school. With the above-mentioned definitions, the covert or hidden outcomes of learning are not part of curriculum assessment. Therefore the working definition proposed is:

> Curriculum is considered a plan or programme for instruction and learning prepared in the light of national education needs, visions and goals in the milieu of international practices and trends which contain references to selected and sequenced learning content.

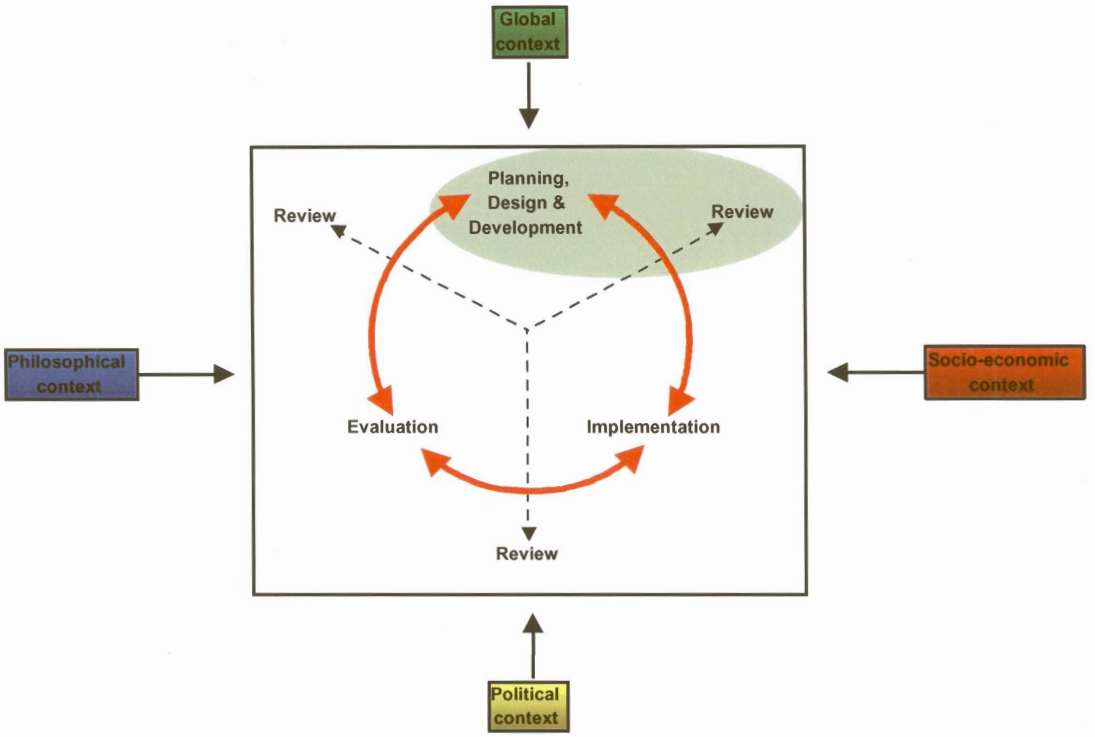
4.4. Curriculum development process

The process of curriculum development could be standardized in three key stages: planning, design and development; implementation; and evaluation. These three stages in the curriculum development process will briefly be explained. It should be mentioned that stage 1 comprises three components: planning, design and development.

1. • Curriculum **planning** – refers to the way in which particular aspects of life, knowledge, attitudes and values are selected from the total culture of society (for purposes of transmission) and are put into practice.
   • Curriculum **design** – refers to the organizational pattern of the structure of a curriculum.
   • Curriculum **development** – refers to the writing of instructional objectives, content, activities and evaluation procedures.
2. **Implementation** – refers to the process of putting a change in the curriculum into practice.
3. **Evaluation** – refers to the process of studying the merit or worth of the whole of the curriculum.

It should be noted that curriculum design does not necessarily precede curriculum development in a linear fashion. Instead, the two processes work and occur simultaneously. Each stage is reviewed prior to the introduction of the next stage. Therefore, the curriculum development process could be described as a cyclical, reflective, interactive process as shown in Figure 4.5.

Figure 4.5: Curriculum development process



The curriculum development process does not exist in a vacuum. It is located within the broader global, philosophical, socio-economic and political context, which all have a direct impact on the development process. This study is located within the oval shaded area, indicated in Figure 4.5 above.

Prior to curriculum development, a curriculum model has to be identified, which outlines the theory of the aspects to be considered, the sequence of events and how actions should be planned.

Various models of curriculum design exist (see Dixon 1998: 24-30), among which are three traditional models: the objectives model (product or output model), the process model (input model), and the situation analysis model or culture-analysis model. OBE uses a modified situation analysis model where the terminology differs somewhat. For this reason the objectives model and process model will not be discussed.

Kachelhoffer (1987: 86) cites the situation analysis model, which is cyclical in nature and comprises primarily four components (situation analysis, objectives, learning content/ experiences/opportunities and evaluation) as the most common model.

According to Dixon (1998: 25), the revised "outcomes-based situation analysis model" would comprise: situation analysis; learning outcomes; assessment criteria, range statements and performance indicators replacing learning content, learning experiences and learning opportunities and evaluation (of the whole process).

Using this OBE model as a framework, I propose a model in Chapter 5.2 that forms the basis of the qualification design in Music Technology.

4.5 Summary

The broad systemic and curricula implications for education transformation in South Africa suggested in this chapter indicate that the current education system needs to be radically re-examined. The new system needs to adopt transformational OBE as its guiding philosophy and be underpinned by democracy, transparency, accountability, equality and accessibility to all learners.

At present no clear implementation guidelines exist as to how the issue of transformation ought to manifest itself to bring about change within the current education context. Therefore, a developmental approach to transformation needs to be explored by considering traditional (disciplinary) and transitional (interdisciplinary) OBE as well. A direct move towards transformational OBE would have catastrophic implications for education. The new structure should reflect a shift towards transformational OBE that is underpinned by critical cross-fields and Spady's life performance roles (hereafter referred to as life roles). In other words, educators need to manage the continuum for systemic change in order to achieve the ideal of transformational OBE.

The concepts discussed in this chapter will be used to form the basis for the conceptual framework for qualification design in Chapter 5.1.