INVESTOR IN PEOPLE

Guidelines for Integrated Assessment

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Guidelines for Integrated Assessment

THE SOUTH AFRICAN QUALIFICATIONS AUTHORITY

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TERMS

NOTE: All terms come from formally accepted documentation such as the SAQA Act, the NSB and ETQA Regulations and other formal policy documents published by the South African Qualifications Authority (SAQA).

Term	Description
Assessment	A structured process for gathering evidence and making judgments about an individual's performance in relation to registered national unit standards and qualifications
Applied competence	A learner's ability to integrate concepts, ideas and actions in authentic, real-life contexts which is expressed as practical, foundational and reflexive competence
Exit level outcome	A description of demonstrable and assessable end products of a learning process
Formative assessment	Assessment that takes place during the process of teaching and learning and which has as its purpose the progressive development of learners' abilities
Integrated assessment	A form of assessment which permits the learner to demonstrate applied competence and which uses a range of formative and summative assessment methods
Learning programme	The sequential learning activities associated with curriculum implementation, leading to the achievement of a particular qualification or part qualification
Programme	A coherent set of courses, leading to a qualification
Qualification	A planned combination of learning outcomes with a defined purpose(s) that is intended to provide qualifying learners with applied competence and a basis for further learning
Site-based assessment	An assessment undertaken in the workplace making use of naturally occurring evidence
Summative assessment	An assessment undertaken to make a judgment about achievement. This is carried out at the end of a learning programme
Unit standard	A coherent and meaningful outcome of learning or training that is formally recognised

ACRONYMS

ACE	Advanced Certificate in Education
CHE	Council on Higher Education
CIDA	Canadian International Development Agency
DoE	Department of Education
DoL	Department of Labour
ETQA	Education and Training Quality Assurance body
FET	Further Education and Training
GET	General Education and Training
HE	Higher Education
LGWSETA	Local Government, Water and Related Services Sector Education and Training Authority
NAP	(Draft) A New Academic Policy for Programmes and Qualifications in Higher Education
NCS	National Curriculum Statements
NPDE	National Professional Diploma in Education
NQF	National Qualifications Framework
NSB	National Standards Body
SAQA	South African Qualifications Authority
SQA	Scottish Qualifications Authority
UNISA	University of South Africa

EXECUTIVE SUMMARY

This publication stems from the need to support learning and teaching in an outcomes-based model by expanding the understanding of integrated assessment approaches.

The main audience comprises providers and institutions (such as work-based training organisations) and education and training practitioners.

The publication proposes approaches to assess applied competence, i.e. practical, foundational and reflexive competence.

It attempts to develop a common understanding of integrated assessment and the approaches that will enhance the assessment of applied competence.

Integrated assessment occurs at various levels and moments in the course of a learning programme.

An integrated assessment approach should inform curriculum and learning programme development. It should be an integral part of the learning and teaching that takes place in the classroom.

This publication explores various interpretations and definitions of integrated assessment.

It explores the purpose of assessments and the validity and reliability of these within the context of the National Qualifications Framework (NQF).

The following are the broad principles of the development and design of integrated assessment approaches:

- focusing assessment activities on the purpose of the unit standard or learning programme seeking ways to integrate theory and practice
- acknowledging that assessment is not a "once-off" event in an outcomes-based model
- acknowledging that although assessment of only an appropriate sample of evidence may take place this should be sufficient to infer that a learner is competent ensuring transparency by giving role-players access to assessment plans.

The broad guidelines for the development and design of integrated assessment approaches include the following:

- studying the level descriptors for a particular NQF level
- studying the purpose of the qualification
- analysing exit level outcomes, critical cross-field outcomes and main learning areas that deal with each dimension of the purpose of the qualification
- identifying discrete areas that need to be assessed separately
- identifying ways to help integrate teaching and learning in areas where applied competence will be assessed
- carrying out assessments according to assessment plans designing the assessment instruments
- reviewing the process, the instruments and the applications
- This publication explores examples of integrated assessment approaches.

CHAPTER 1:
INTRODUCTION

The *Guidelines for Integrated Assessment* is aimed at providers of education and training and the practitioners responsible for the delivery and assessment of learning.

The purpose of this publication is to provide guidelines for the development of assessment approaches that help the evaluation of a learner's ability to integrate knowledge. Assessments will focus on learners' ability to demonstrate applied knowledge or competence. According to the National Qualifications Framework (NQF) the evidence of applied competence is the learners' ability to integrate concepts, ideas and actions in authentic, real-life contexts. It is expressed as practical, foundational and reflexive competence, namely:

- Practical competence - the demonstrated ability to perform a set of tasks and actions in authentic contexts
- Foundational competence - the demonstrated understanding of what we are doing and why we are doing it
- Reflexive competence - the demonstrated ability to integrate our performances with our understanding so that we are able to adapt to changed circumstances and explain the reason behind these adaptations (SAQA, 2001: 11).

Within the NQF model, the terms "applied competence" or "applied knowledge" encompass all types of knowledge, i.e. practical and theoretical, and the ability to reflect within a particular context. In the past theoretical knowledge in particular, was privileged. It was decided that the NQF would value all types of knowledge and, depending on the context,. assign equal value to all dimensions of knowledge.

These guidelines are about assessment in an outcomes-based model. In this model the teaching, learning and assessment support the learners' progressive attainment of skills, attitudes and knowledge, both practical and theoretical. The purposes and outcomes of unit standards and qualifications describe this knowledge. It is assumed that readers are familiar with the core principles of outcomes-based assessment: fairness, validity, reliability, practicability and authenticity. SAQA has described these principles in the *Criteria and Guidelines for the Assessment of NQF registered Unit standards and Qualifications* (SAQA, 2001)[1].

Some may argue that an additional publication dealing with outcomes-based assessment approaches is not necessary. However according to international practice, the application of the assessment of integrated learning is still very limited. For example, Biggs (2001:7) states that in the United States of America, the mind-shift that assessment is part of the learning process rather than an end in itself, has not yet taken place. Assessment should be in the *service of learning and the learner* but the main focus is still on using it as a *selection tool*. Biggs ascribes this to deeply entrenched historical notions of assessment. From the earliest ages assessment has been used to "select the best individuals in terms of stable characteristics", or norms.

[1] Obtainable from www.saqa.org.za

He maintains that:

> Particularly in elitist schools and universities, … education is …a selective exercise, with norm-reference examinations [considered to be] entirely appropriate… [O]ften the procedures of constructing and administering tests, establishing reliability and validity, and interpreting and reporting test scores are based on parametric statistics, as if the assumptions of polygenetic inheritance, which produce the normal curve, are appropriate for educational assessment (Biggs 2001: 6).

We need these guidelines to expand the understanding of assessment as a critical component of the teaching and learning process in which it is carried out to support learning and determine the application of knowledge in authentic situations[2]. *Integrated assessment* (described in numerous policies of the emerging South African education and training system) has been identified as the mechanism to achieve this purpose. A cursory analysis of definitions of integrated assessment suggests that the concept is poorly understood. The first task of these guidelines therefore is to establish a common understanding of integrated assessment.

The following definition and two excerpts from registered qualifications highlight the extent of the agreement (or lack of it) about the understanding of integrated assessment:

The NSB Regulations (SA, 1998:4) provide the following broad description of integrated assessment:

> A form of assessment which permits the learner to demonstrate applied competence and which uses a range of formative and summative assessment methods.

Likewise, qualifications and unit standards registered on the NQF make explicit statements about integrated assessment as for example, in the following unit standard-based qualification:

Integrated assessment at the level of qualification provides an opportunity for learners to show that they are able to integrate concepts, ideas and actions across unit standards to achieve competence that is grounded and coherent in relation to the *purpose* of the qualification.

Integrated assessment must judge the quality of the observable performance, but also the quality of the thinking that lies behind it. Assessment tools must encourage learners to give an account of the thinking and decision-making that underpin their *demonstrated performance*. Some assessment practices will be of a more practical nature while others will be of a more theoretical nature. The ratio between action and interpretation is not fixed, but varies according to the type and level of qualification.

A broad range of task-oriented and theoretical assessment tools may be used, with the distinction between practical knowledge and disciplinary knowledge maintained so that each takes its rightful place.

Excerpt 1: National Certificate: Tourism Guiding

[2] 'Authentic situations' refer to meaningful application of knowledge and may include 'simulations' or other approaches as the context requires

In another registered non-unit standard-based qualification, integrated assessment is described as follows:

> The assessment methods are unique to the different outcomes. Theory tests focus on the knowledge of learners, while the practical assignments focus on the *demonstration of skills*. Therefore, the two assessment methods cannot be separated as the one complements the other in ensuring that the *purpose* of the qualification was achieved. Theory and practice are integrated in the following ways:
> Theory: Tests and an externally moderated final examination
> Practice: Projects and assignments, case studies, portfolios containing proof of learning process

Excerpt 2: Certificate: Tourism Management

When examining the NSB definition and the above two excerpts, the notion that applied competence is theoretical knowledge (but is also more than that) emerges quite strongly. In all cases, learners are required to demonstrate, as well as to understand. Also, both of the two excerpts from the qualifications link integrated assessment to the *purposes* or the *core* of the qualifications.

In both excerpts a clear distinction is made between practical knowledge and theoretical (or discipline-based) knowledge. The weighting of the practical knowledge in the second example is at the level of formative assessment. It is not subject to external moderation. In the first example, users of the qualification are warned that the "distinction between practical knowledge and disciplinary knowledge [should be] maintained so that each takes its rightful place".

This brief analysis seems to suggest that in this instance integrated assessment is interpreted both as assessment of theoretical knowledge, and also (but separately) as assessment of practical skills. Instead of attempting to assess integrated learning (the combination of knowing, doing, understanding and *application of knowledge*) this approach perpetuates the distinction between knowledge and skills.

This publication therefore will explore the current understanding of integrated assessment and how (as a guideline for the users) it is expressed in the following: qualifications and unit standards and in policies, guidelines and practice.

It is important to realise that integrated assessment will be understood in many different ways and on different levels. It varies according to the context in which the approaches are developed and used. For example, an integrated approach may be used to assess the smallest coherent unit of learning – a unit standard, or to assess across disciplines and fields of learning.

Kraak holds the following view:

> Knowledge is problem-oriented; it attempts to solve problems by drawing on multiple disciplines, which interact in the real-world contexts of use and application, yielding solutions and new knowledge which are not easily reducible to any of the participating disciplines (Kraak 2000: 15).

This is in keeping with the notion of applied competence. Therefore, to support the development of problem-oriented knowledge, integrated assessment needs to occur throughout a learning programme. The levels where integrated assessment approaches could be used are highlighted in Figure 1.1:

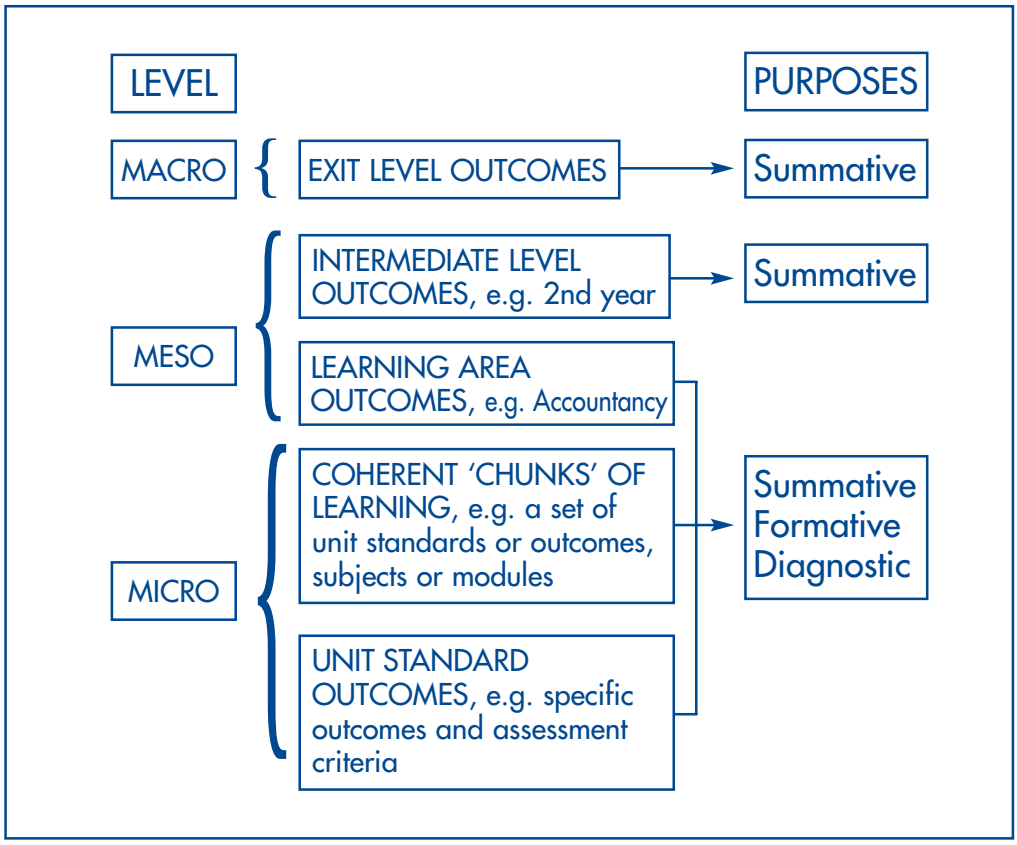


Figure 1.1: The possible different levels and purposes of integrated assessment approaches

Many possible permutations of integrated assessment exist. Mainly it depends on the context and the purpose of the assessment. It is important not to force integrated assessment across disciplines or fields of learning. For example, should the two majors of a Bachelor's degree be Sociology and French, it would be inappropriate to assess across such disciplines using a summative, integrated assessment instrument. On the other hand, should Financial Accounting and Business Economics be the majors in a Bachelor of Commerce degree, clearly these disciplines could be assessed by the integrated assessment approach at the summative level.

1 INTRODUCTION

The relationship between theory and practice varies in the different sectors and learning programmes. The way in which the idea of "theory applied in practice" is integrated in an Engineering curriculum will not be the same as the way it is integrated in an English Language or a Social Anthropology curriculum. In the NSB Regulations (1998) integrated assessment is explicitly required within the rationale and structure of a qualification. It is also required in a curriculum that will lead to the attainment of a particular qualification.

Assessment needs to be an integral part of a learning programme's teaching and learning activities. This infers that it should be part of a curriculum and learning programme development. We cannot assess in an integrated way if we do not teach and learn in an integrated way, because integrated *learning* comes before *integrated assessment*. The way in which teaching, learning and assessment activities can be developed as a coherent process is illustrated in Figure 1.2. This shows the progressive achievement of the purpose of a unit standard or qualification.

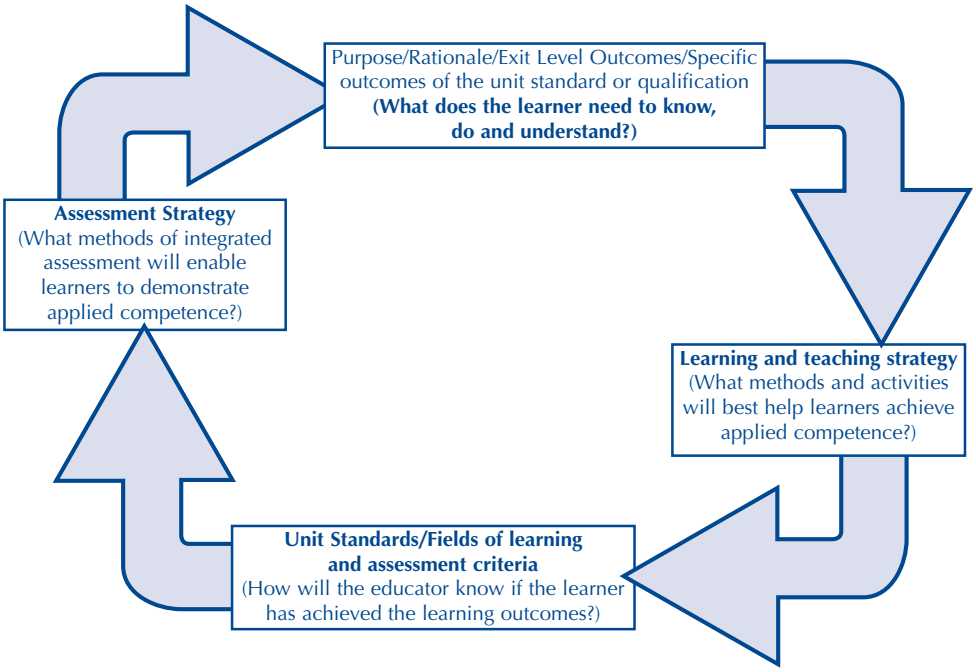


Figure 1.2: Towards teaching, learning and assessing in an integrated way

The process illustrated in Figure 1.2 suggests that careful planning of integrated teaching, learning and assessment is necessary. In a learning programme, the sequence and purpose of assessment obviously needs to support and enhance learning. It should not be seen merely as an add-on to be administered at the end of the programme.

A plan for an integrated assessment approach (especially across disciplines or fields of learning) needs to include sufficient evidence of a learner's competence. *The Criteria and Guidelines for the Assessment of NQF registered Unit standards and Qualifications* (SAQA, 2001: 37) asks: "Is there enough evidence to meet all the criteria needed to certify the learner

as competent?" The evidence considered as *sufficient* should be described in detail. The possibility that *naturally occurring evidence* may emerge through workplace practice and the like should also be borne in mind. Often "sufficiency of evidence" has been interpreted as meaning that the minute detail of a learning outcome and the assessment criteria must be assessed. Regardless of the purpose of the assessment (i.e. diagnostic, formative or summative) only a representative sample of learning can be assessed. During the planning process it must be decided which evidence will best demonstrate[3] applied competence.

"Sufficiency of evidence", is linked to the need to report on discrete disciplines or fields of learning. A plan should therefore include the details of the weighting of the composite parts of an assessment. These will relate both to the awarding of credits to the composite parts and to the integrated assessment results.

The following example shows how this could work in practice:
In the assessment of *Communication* integrated with the development and presentation of a *Business Plan*, the weighting of *Communication* will be determined by the extent to which an oral presentation of a *Business Plan* contributes towards the achievement of the required credits for *Communication*. In terms of the total number of credits required for *Communication*, an oral presentation could "count" 2 credits. The credit-rating and weighting of the integrated assessment should therefore indicate that *Communication* will "count" 2 credits, while the *Business Plan* will "count" 8 credits.

CONCLUSION

Rowntree (2003: 82) reminds us of the importance of meaningful assessment in an education and training system. He maintains that:

> If we wish to discover the truth about an educational system, we must look into its assessment procedures. What student qualities and achievements are actively valued and rewarded by the system? How are its purposes and intentions realised? To what extent are the hopes and ideals, aims and objectives professed by the system ever truly perceived, valued and striven for by those who make their way within it? The answers to such questions are to be found in what the system requires students to do in order to survive and prosper.

Many recently developed policies express the "hopes and ideals" of the education and training system of South Africa. The purpose of these policies is to create a process both accessible and enabling to support learning. Another is to develop in learners the skill of applying knowledge appropriately and in meaningful contexts. We hope that the *Guidelines for Integrated Assessment* will contribute to the growing understanding of the mechanisms to achieve meaningful learning.

[3] To 'demonstrate' encompasses practical, observation-based assessment approaches, but is also understood to mean to 'demonstrate' understanding through knowledge tests or other theory tests, as appropriate to the context within the assessment will occur.

CHAPTER 2:
WHAT IS INTEGRATED ASSESSMENT?

PURPOSE OF THIS CHAPTER

The purpose of this chapter is to develop a common understanding of integrated assessment within the context of an assessment plan or strategy. Integrated assessment will be defined; the various purposes of assessment will be explored. These purposes range from a developmental (or formative) focus, to a judgemental (or summative) focus. Because assessment is considered to be such an important tool to determine the health of an education and training system, the validity and reliability of assessment, particularly in terms of the reporting on integrated assessment will be discussed.

2.1 DEFINING INTEGRATED ASSESSMENT

Integrated assessment differs from the historical approaches to assessment. It is unavoidable therefore that the concept is interpreted in different ways. The following definitions and descriptions of integrated assessment are presented to explore the commonalities (and differences) in understanding:

(i) … integrated assessment should [assess] the ability to combine key foundational, practical and reflexive competence with some critical cross-field outcomes and apply these in a practical context for a defined purpose. The context should be relevant to real life application (SAQA/CIDA, 2003: 62).

(ii) … it should measure the extent to which candidates have integrated the knowledge, skills, personal qualities taught and/or modelled through the different unit standards which make up the programme (proposed Advanced Certificate in Education – School Management and Leadership) (www.saqa.org.za).

(iii) … assessment should ensure that the candidate is a consistently competent individual, capable of undertaking the whole activity being assessed rather than small time-consuming and trivial tasks. It is advisable to plan to assess not only one outcome as a whole activity, but several….across a number of different units. This process is called integration of assessment. Integrating assessment in this way will considerably lighten the burden on both assessor and candidate and will lead to more coherent and meaningful assessments (Scottish Qualifications Authority, 1997: 23).

(iv) Integrated assessment at the level of qualification provides an opportunity for learners to show that they are able to integrate concepts, ideas and actions across unit standards to achieve competence that is grounded and coherent in relation to the purpose of the qualification ((www.saqa.org.za) National Certificate: Tourism: Guiding)

(v) … making use of integrated tasks and activities, and a variety of methods, tools, techniques and contexts in assessing learners' performance (Department of Education (DoE), Draft revised National Curriculum Statement for Grades R – 9 (Schools)).

(vi) … the integration of knowledge and skills across subjects and terrains of practice is crucial for achieving applied competence as defined in the NQF … the NCS [National Curriculum Statements] seeks to promote an integrated learning of theory, practice and reflection (DoE, Qualifications and Assessment Policy Framework Grades 10 – 12 (Schools)).

(vii) The testing again and again of the same restricted range of skills and abilities can no longer be justified; instead of simply writing about performance, students should be required to perform in authentic or simulated real-world contexts. This demands innovative assessment approaches and methods, which ensure that all learning outcomes are in fact assessed, and that assessments add value to student learning (CHE, Draft New Academic Policy for Programmes and Qualifications in Higher Education (NAP), 2001: 112).

(viii) Integrated assessment refers to:

- Assessing a number of outcomes together
- Assessing a number of assessment criteria together
- Assessing a number of unit standards together
- Using a combination of assessment methods and instruments for an outcome/outcomes
- Collecting naturally occurring evidence (such as in a workplace setting)
- Acquiring evidence from other sources such as supervisor's reports, testimonials, portfolios of work previously done,
- logbooks, journals, etc. (SAQA, 2001: 55).

(ix) Integrated assessment at qualifications level enables learners to show that they are able to integrate concepts, ideas and actions across unit standards to achieve competence that matches the purpose of the qualification (LGWSETA, 2004: 13).

The key elements emerging from these definitions and descriptions of integrated assessment include the following:

KEY ELEMENT	SOURCE (see above)
The need to demonstrate applied competence, including the provision of evidence of the achievement of critical cross-field outcomes	(i); (vi)
Relating the assessment to a defined purpose (of unit standards and qualifications)	(i); (iv); (ix)
The context in which the assessment should be undertaken is key	(i); (v); (vii)
The practicability and efficiency of assessment approaches are important	(iii); (vii); (viii)
Integrated assessment approaches should "add value to student learning"	(iii); (vii)
Specifically linking the underpinning theory with practice makes integrated assessment a more authentic and coherent method to evaluate learning	(iii); (iv); (vii)
Integrated assessment should make use of a variety of assessment instruments whereby more than one mode of learning is assessed	(v); (vii); (viii)
Integrated assessment aims to assess in an appropriate manner, the extent to which learners can "integrate concepts, ideas and actions"	(i); (ii); (iv); (vi); (ix)
Integrated assessment is the assessment of knowledge, skills and personal qualities	(ii); (vi)

Table 2.1: Key elements emerging from various interpretations of integrated assessment

2

WHAT IS INTEGRATED ASSESSMENT?

Clearly integrated assessment is actually no different from good practice. The purpose of this publication is to encourage a deliberate engagement with a form of assessment that promotes meaningful learning. This form of assessment supports the achievement of the purpose of the qualifications and unit standards.

In this publication, the formal definitions derived from the SAQA regulations are used.

Assessment is defined in the following way:

> A structured process for gathering evidence and making judgments about an individual's performance in relation to registered national standards and qualifications (SAQA, 2001: 16).

Integrated assessment is seen as an important mechanism to present evidence of applied competence. (See the description of it that appears in the NSB Regulations (SA, 1998: 4) quoted in the Introduction on p10).

These two definitions encapsulate many of the principles and concepts that are used to describe assessment in the emerging South African education and training system. Integrated assessment is put into practice by doing the following:

- Assessing a number of outcomes together [or]
- Assessing a number of assessment criteria together [or]
- Assessing a number of unit standards together [and]
- Using a combination of assessment methods and instruments for an outcome/outcomes [and]
- Collecting naturally occurring evidence (such as in a workplace setting) [and/or]
- Acquiring evidence from other sources such as supervisor's reports, testimonials, portfolios of work previously done, logbooks, journals, etc. (SAQA, 2001: 55).

In the new education and training model the term *applied competence* points to one of the key principles of the NQF, i.e. that knowledge should reflect foundational, practical and reflexive competencies. This means that learners must be able to demonstrate *understanding* of the underpinning theory, i.e. the basis of their *practice* in a particular context and through reflection, be able to *integrate performance* with *understanding* (SAQA, 2001: 21).

The NSB definition also suggests that integrated assessment is not a once-off event because it "uses a range of formative and summative assessment methods". These assessments may have more than one purpose and may take different forms. In the *Criteria and Guidelines for the Assessment of NQF registered Unit standards and Qualifications* (SAQA, 2001: 26) *formative assessment* is broadly described as "assessment that takes place during the process of learning and teaching", with the purpose of supporting learning. *Summative assessment* is used to make a "judgement about [learner] achievement" that is used at a particular point (usually at the end) of a learning programme to measure progress in terms of the requirements of national standards and qualifications so that credits can be awarded.

Summative assessments take place throughout a curriculum (refer to Figure 1.1), at points when a judgement is made about whether a learner is able to progress to the next level/semester/unit of learning. The curriculum will therefore consist of a series of small or large learning programmes. A learning programme can be considered small if it covers only a particular unit of learning, (for example a skills programme, or short course, or part of the module) and large if it ends only at the completion of a full year of study in a discipline (refer to Figure 3.4 and 3.5 in chapter 3).

It is important that a learning programme should have a range of assessments (i.e. diagnostic, formative and summative) planned to take place at the appropriate moments. The NSB Regulations state that designers of qualifications should ensure that "integrated assessment [is] appropriately incorporated to ensure that the purpose of the qualification is achieved" (SA, 1998: 8).

Integrated assessment should offer an *opportunity to demonstrate the depth and breadth of learning* at all stages and in a variety of ways throughout the learning programme. As mentioned in Chapter 1, integrated assessment can be used at different levels and for different purposes during a learning programme. For example, at *qualification exit level* , a set of integrated assessments could be used when credits have been accumulated over time and at different learning sites (possibly through a series of skills programmes). This would be done in order to assess the integration of knowledge and skills in terms of the purpose of the qualification (LGWSETA, 2004). This approach contrasts with assessing a learner in discrete parts of a qualification (i.e. in terms of subject areas) where the assumption is that the overall purpose of the qualification has been achieved. In practice, educators seldom have an overview of the purpose of the qualification. Instead they focus on their own disciplines and the linkages between the parts of the qualification are not necessarily made. This suggests that it may be necessary to develop assessments at the qualification exit level that will evaluate learning across subjects and *terrains of practice*.

Throughout the learning programme, educators must seek to assess the *application of knowledge within their disciplines*, both for formative (or developmental), as well as for summative (or judgemental) purposes. This means that coherent "chunks of learning", including theory and practice, will be assessed. This can be achieved through "clustering" of unit standards and learning outcomes. The advantage is that the understanding of *theory, in support of practice*, is assessed. It also avoids duplicating the assessment of learning outcomes that overlap with outcomes in other disciplines or modules.

Integrated assessment, in terms of the assessment of more than one unit standard or learning outcome, should never be forced. Unit standards or learning outcomes will need to be assessed discretely, particularly in the early stages of a learning programme. However, educators should guard against over-assessment where each outcome "(or worse, each assessment criterion) [is assessed separately resulting in] hundreds of little fragmented meaningless assessments of the check-list type, taking up valuable learner and educator time without anything of value being learnt" (LGWSETA, 2004: 13). Assessments are important moments in the course of learning programmes. The cost and practicability of assessment

should be carefully considered when planning integrated assessment.

2.2 THE PURPOSES OF (INTEGRATED) ASSESSMENT

In line with the changing focus of the emerging South African education and training system the primary function of assessment is understood to be to support learning. For example, the following point is made in the National Curriculum Statement Grades 10—12 (DoE, 2002b: 23):

> … there are many reasons why learners' performances are assessed. These include assessment for monitoring progress, diagnosing or remediating barriers to learning, selection, guidance, supporting learning, certification, and for promotion.

This understanding of assessment is in agreement with international trends in education and training. In the *International Encyclopedia of Education* Keeves describes the purposes of assessment "as the basis for instructional decisions" (Keeves 1994: 364). These purposes include the following:

(a) placement decisions
(b) formative or monitoring decisions
(c) diagnostic decisions
(d) summative or attainment decisions.

Assessment also serves the purpose of quality assuring the process and the instruments of assessment and the performance of assessors[4].

Assessment is increasingly seen to be in the service of learning and the learner. Mothata confirms this when he argues that "the overall message [emerging from the new approach to assessment is] that assessment is now more about learning than testing; assessment for the benefit of the learner and their teacher rather [than] for accountability to some outside body or programme" (Mothata et al., 2003: 86).

Yet, Brooks and Brooks observe that all too often:

> Test results become not the means to assess movement toward ends and to shift directions if necessary, but the ends themselves. Schools over-emphasize test results – teachers gauge their own efficacy by them, parents fixate on them, and students come to fear them. Ultimately, test results obscure opportunities to honor and value individual differences and instead translate differences into classifications that place, even trap, students in a range of settings such as remedial and gifted programs.
>
> Further, most tests, particularly fact-based, multiple-choice tests are unreliable as indices of what students do or do not "know". In preparing for tests, student must guess which discrete bits of information the teacher – or the state – consider most important. Worst of all, in most school settings, testing is not part of the instructional program (Brooks and Brooks 1993:85).

[4] The different purposes of assessment which are discussed in detail in the *Criteria and Guidelines for the Assessment of NQF regsitered Unit standards and Qualifications* (SAQA, 2001) are not included here. Consult the SAQA website: www.saqa.org.za for an electronic copy

For assessment to be meaningful it should be fully integrated into teaching and learning and should guide decisions about the activities that will support and enhance learning. Assessment should not be an "add-on" used at the end of a learning programme in the form of a once-off written examination. This type of examination does not provide learners or educators with opportunities to determine the gaps in learning where remediation can be undertaken. Neither does a written examination generally attempt to assess the integration of learning in line with the purpose of a qualification. This does not mean that written examinations cannot be used as a form of assessment. However, an over-reliance on one form of assessment and assessing only one mode of learning is no longer defensible (SAQA, 2000).

Unisa's National Professional Diploma in Education (NPDE) General Tutorial Letter states the following:

> … assignments and examinations by their very nature cannot tell us everything about what you know and can do … In order to get a better picture of your overall achievements, we need to offer you additional opportunities to demonstrate what you can do [through the] inclusion of integrated assessment (UNISA 2004: 3).

Other key purposes of assessment such as ensuring accountability of providers within the system and measuring the health of the system must be taken into account when drafting an assessment plan. The NCS Grade R – 9 (Schools) suggests that:

> … assessment of learner performance should be a routine part of monitoring the performance of the education system … systemic assessment [should be] undertaken at the end of each phase within the general education and training phase (DoE, 2000: 94).

Monitoring both the efficacy of policies and the effectiveness of teaching and learning is an important purpose of assessment. Nuttal notes in the *International Encyclopedia of Education* that monitoring is "of major importance" [to most countries] and that they "devote substantial resources "to this aspect. The purpose of such monitoring is as follows:

> … [to] provide information about how the educational system as a whole is functioning, and usually … chart[s] changes in the level of student achievement over time. This monitoring or evaluation can contribute to demonstrating the accountability of the educational system, and the information derived from national monitoring commonly attracts much public attention and is extensively used in political debate (Nuttal 1994: 3904).

For example, a national monitoring system is required to report on discrete parts (or subjects) of qualifications in the South African Senior Certificate examination. This could influence the design of integrated assessment and have an impact on the way in which results of such assessments are reported. Large-scale assessments (such as the Senior Certificate examinations) rely heavily on the validity and reliability of the results. The next section therefore includes a brief discussion of the validity and reliability of integrated assessment approaches.

2.3 VALIDITY AND RELIABILITY[5]

The Council on Higher Education (CHE) maintains the following:

> … if we are to take assessment seriously, it is important to grasp how [validity and reliability] apply to … education practice and to understand that there tends to be a trade-off between these two qualities of assessment (CHE, 2001, 113).

Validity is concerned with the appropriateness, usefulness and meaningfulness of inferences made from the assessment results. Validity, therefore, refers to "measuring what is says it is measuring, be it knowledge, understanding, subject content, skills, information, behaviours" (SAQA, 2001: 17). The questions "Are we assessing the right things?" and "Are we assessing things right?" are important and provide guidance in terms of the fitness *of* and fitness *for* purpose of the assessment (CHE, 2001: 114).

The following strategies could improve the validity of assessment:

- Clarifying learning outcomes and their links to specific assessment criteria within an overall assessment strategy
- Ensuring that the methods selected are "fit for purpose"
- Using a range of assessment methods to ensure that all learning outcomes are assessed. Avoiding testing only those which are easy to test.
- Establishing good links between assessment, learning and personal development, by allowing students some element of choice, encouraging self-assessment and reflection (CHE, 2001: 114).

The validity of assessment is best achieved by setting authentic or applied tasks in the learning programme that closely simulate real world contexts.

The following may be concluded:

> … the closer the assessment is to the teaching and learning process, the more valid, accurate and fair it is likely to be … due to high levels of validity, assessment results should be dependable and comparable, although not necessarily statistically reliable (CHE, 2001:116).

Reliability in assessment is about consistency and the extent to which in similar contexts same judgements can be made in order to analyse the results statistically (SAQA, 2001: 18). The Scottish Qualifications Authority (SQA) maintains the following:

> … an assessment which is reliable gives consistent results on different occasions with different candidates and different assessors. Achieving a reliable assessment involves minimising the factors which give rise to errors (SQA 1997: 17).

Errors may arise from assessor practices, the environment for the assessment or from the sample of learning that is to be assessed.

[5] Validity, reliability, and practicality are discussed in detail in the *Criteria and Guidelines for the Assessment of NQF registered Unit standards and Qualifications* (SAQA, 2001) see Chapter 3. Consult the SAQA website: www.saqa.org.za for an electronic copy.

In integrated assessment it is not always possible to reconcile the requirement of statistical reliability with the criteria of validity and authenticity. In the past in many a standardised assessment, validity was sacrificed for reliability. In international literature the assessing of learning and the assessing of system efficacy are not considered to be entirely comfortable bedfellows. For example, Whitford and Jones (2001: 1163) argue that standardised tests do not provide a clear picture of learning achievements. They suggest that assessing learning with the same instruments and at the same time as assessing for accountability confuses the issue. It is unclear "whether it is the school or the student that is being assessed" and as a result "learning and achievement are fundamentally confused". Accountability, according to them, "reduces school quality to a numeric formula" and this approach is "over-simplified and ill-suited to evaluate many important aspects of schooling".

Integrated assessment plans have to take into account the requirements of reliability and validity. Currently, standardised testing is still the most commonly used tool to evaluate student learning. It is intended to measure simultaneously both the success (and lack thereof) of the learners and of the education and training system. The task of designers of assessment strategies (including integrated assessment approaches) is to balance the requirements of validity and reliability as far as possible. The following are some useful ways of reducing inconsistencies in evaluating assessment results:

- establish clear [and common] manageable assessment criteria
- use internal moderation (where [educators] meet during and after the [assessment] to compare … interpretations of the criteria and marking categories or bands)
- establish institutional frameworks to ensure consistency in the use of numerical quantification and verbal descriptions of [*inter alia*] level descriptors
- use several assessment tasks including a range of assessment methods (CH2001:155)
- evaluate the assessment criteria for efficacy and relevance.

CONCLUSION

All over the world educators are increasingly convinced of the following:

> … the intent of instruction is to promote students' abilities as thinkers, problem-solvers, and inquirers… Assessments, if they are to be aligned with current views on instruction and human learning, must more closely resemble meaningful learning tasks and assess the acquisition of high-level thinking and reasoning abilities as integral to subject-matter knowledge (*International Encyclopedia of Education*, 1994: 370).

Integrated *assessment* approaches therefore need to support integrated *learning*. They need to develop and measure learners' abilities not only to understand the underpinning theory, but also to apply it in authentic contexts and to reflect on what they are doing, and why.

CHAPTER 3:
TOWARDS DESIGNING INTEGRATED ASSESSMENT APPROACHES

PURPOSE OF THIS CHAPTER

The purpose of this chapter is to highlight the need for the planning of assessment as an integral part of teaching and learning. This is in keeping with the stated ideal that assessment should be undertaken in support of meaningful learning. The planning entails the articulation of principles and the development of policies and infrastructure that consciously promote the implementation of integrated assessment approaches. In addition, the broad principles guiding the design of appropriate fit for purpose, integrated assessment approaches will be discussed and the broad steps to facilitate such designs will be provided.

3.1 PLANNING FOR INTEGRATED ASSESSMENT

The target audience of this publication are the education and training practitioners of particular providers (including workplace-based providers). However, it is the responsibility of the Education and Training Quality Assurance (ETQA) body to articulate education and training principles and to provide clear guidelines regarding delivery and assessment. This suggests that ETQAs should provide guidance and coherent definitions at the policy decision-making level to facilitate the interpretation of integrated assessment.

An over-arching assessment strategy needs to be developed. Providers need to implement the strategy following the principles set down by the ETQA. They will expand on and contextualise the assessment approaches for particular institutions. Such strategies should take into account the following:

- the provider's reporting and quality assurance requirements
- the ways in which responsibility for different aspects of assessment are shared between different assessors
- the composition of summative judgements within the context of a qualification, e.g. the role and weighting of exams, work-based assessment, group-based assessment, peer- and self-assessment, etc.
- the role of external examiners or external moderators, for example are they focusing on the validity of the assessment or only on its reliability?
- policy requirements for individual learners, e.g. the use of learning contracts, transcripts or records of achievement, a process for learner appeals, etc (CHE, 2001: 115,116).

The assessment strategy expresses the provider's generic approach to assessment. Depending on the context, the strategy could include guidelines as to how the generic approach will be implemented in a provider's various structures, e.g. faculties, departments or sub-units. The relevant unit standards and qualifications will also be mentioned. This stage entails curricula development. In the NQF context a curriculum has to do with the following:

- Determining the purpose and values of the learning.
- Analysing the needs and nature of the learners.

- Deciding on the outcomes or learning objectives.
- Selecting the content, the subject matter that will support achieving the outcomes.
- Deciding on the activities, methods and media for teaching and learning.
- Planning how [and when] assessment will be done.
- Planning the evaluation of the overall effectiveness of curriculum delivery (Bellis, 2000: 6).

The next level of planning involves what happens in the classroom. In the document National *Qualifications Framework and Curriculum Development* (SAQA, 2000: 5) a learning programme is defined as "sequential learning activities, associated with curriculum implementation, [which leads] to the achievement of a particular qualification or part qualification" (such as unit standards or skills programmes).

The various heads (of departments; subject heads; heads of training divisions and education and training practitioners) will be responsible for planning and designing assessment approaches and instruments. They will be guided by the broad principles and proposed steps for the development of integrated assessment approaches. They will focus on the purpose of unit standards, learning outcomes and qualifications.

In planning it is important to provide for the following aspects:

- opportunities for inter-disciplinary assessments
- opportunities to assess theory and practice together within one field of learning
- a logical sequence ensuring that integrated assessment approaches enable the progressive attainment of applied competence
- opportunities for review and quality assurance interventions.

Figure 3.1 shows the planning cycle – starting with the development of ETQA policies and guidelines. ETQAs are responsible for verifying that learning programmes leading to nationally registered qualifications and unit standards use integrated assessment appropriately within a particular context.

This is followed by policies and guidelines at an institutional level, agreed integrated assessment approaches at qualifications level, through to integrated assessment approaches to be used across and within subject areas and coherent "chunks of learning" in the classroom as illustrated in figure 3.1:

3 TOWARDS DESIGNING INTEGRATED ASSESSMENT APPROACHES

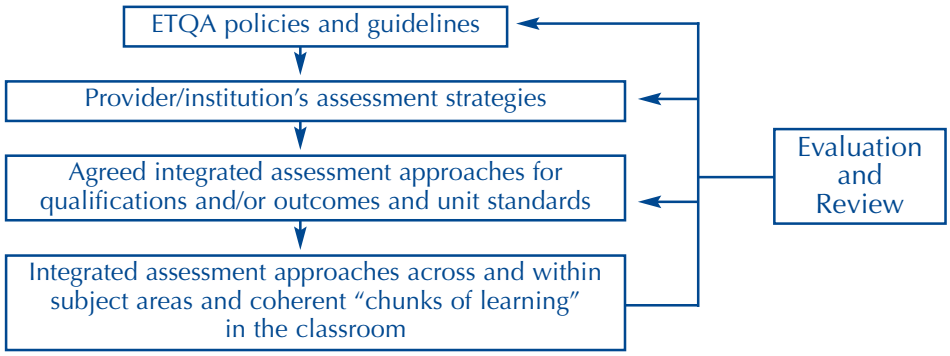


Figure 3.1: The planning cycle

In planning for integrated assessment, designers should be aware that there are several ways of talking about integrated assessment. (Chapter 2 may also be consulted for the various definitions of integrated assessment). For example:

- In integrated assessment we talk of the integration of skills, knowledge and attitudes required for the demonstration of applied competence in a particular area – the so-called 'head, hand and heart'. This includes, where appropriate, the assessment of critical cross-field outcomes. This kind of integration may take place within the smallest unit of learning, i.e. one unit standard, or across a number of units of learning or coherent "chunks of learning".
- Assessment should be of the whole, for example in terms of the title and purpose of the unit standard and/or outcome. Designers should avoid assessing small fragmented parts of the learning.
- Assessment should be of clusters of learning areas that have something in common. These may represent skills programmes, clusters for job purposes or exit level outcomes.
- Assessment could be across domains, terrains and disciplines, if appropriate, in line with the purpose of the unit standards, outcomes and qualifications.
- Integrated assessment should not be forced across units of learning and/or disciplines if it is not viable.

3.2 BROAD GUIDING PRINCIPLES FOR THE DESIGN OF INTEGRATED ASSESSMENT APPROACHES

A set of broad guiding principles for the design of integrated assessment approaches were developed in a consultative workshop that included stakeholder representation from Higher Education, Further Education and Training (FET) and General Education and Training (GET) (public and private). These guidelines are discussed below.

The key over-arching principle that emerged is that integrated assessment is not different from good assessment within the context of outcomes-based assessment approaches. As indicated in Chapter 1, the principles of fairness, validity, reliability and practicability apply to all outcomes-based assessment approaches. All meaningful assessments should attempt to incorporate the evaluation of understanding and the ways in which understanding supports and enhances practice. The extent to which it is possible to apply this principle in all forms of assessment will be dependent on the context.

It is acknowledged that many assessments will be undertaken on small (discrete) parts of learning in order to reinforce it, and to check whether learners are ready to progress to the next level of a learning programme. This is the formative and developmental purpose of assessment. However, practitioners agree that assessment should not be undertaken to test recall merely by being able to name facts. Rather the facts should be used within the context to demonstrate understanding. Such assessments are also considered to be integrated assessments. A decision about undertaking assessment should be guided by the following questions:

- Why are we assessing? (What is the rationale for the assessment?)
- What is it that we are assessing? (What do we want to find out?)
- What evidence is needed to provide proof of applied competence? (What will tell the assessor that the learner understands, knows and can do?)
- Which method is appropriate to use according to the purpose of the assessment? (Which instruments and approaches will allow learners to demonstrate applied competence?)

These questions could be used to evaluate the emerging integrated assessment approach.The application of the broad guiding principles and the procedure necessary to design integrated assessment approaches are demonstrated in Chapter 4.

Bearing in mind the above questions, the broad principles guiding the design of integrated assessment approaches are discussed below. These include the following:

1. Focus assessment activities on the purpose of the unit standard or learning outcome
2. Seek ways to link theory and practice in integrated assessment
3. Remember that assessment is not a once-off event
4. Provide sufficient evidence
5. Make assessment plans accessible to role players so that they are familiar with them

These guiding principles emerged from the consultative workshop with representatives from key stakeholder bodies.

3.2.1 Focus assessment activities on the purpose of the unit standard or learning outcome

The purpose of the qualification, unit standard or learning outcome describes the core competences that will be assessed and credited. Often assessment has been of the small, discrete parts of the unit of learning, rather than of the whole. For example, in the unit standard: *Apply technical knowledge and skills to align business unit performance to business goals* (sub-field Generic Management) the specific outcomes are the following:

a) Develop a performance management programme for a business unit
b) Investigate different performance management systems
c) Monitor performance in terms of a performance agreement
d) Investigate ways of addressing under-performance issues

Each of these specific outcomes has between three and seven assessment criteria. If an assessment is undertaken for each of the specific outcomes, or for each of the assessment

criteria, the learner will be subjected to between four and 18 assessments. This would be to achieve only five credits in relation to the overall 150 credits of the qualification. Clearly this type of assessment is not feasible, practicable nor even meaningful. The assessment should seek ways in which the *technical knowledge and skills* (i.e. the purpose of the unit standard) are evidenced through one or two assessments covering the full range of learning as applicable.

3.2.2 Seek ways to link theory and practice in assessment

The definitions and descriptions in Chapter 2 show that internationally it is considered more meaningful to assess the theory as it is applied in practice in real-life situations as far as possible. This notion is becoming increasingly important in the assessment of learning. For example, in the draft Advanced Certificate in Education (ACE) (School Management) an on-site assessment is a requirement. Where a site-based assessment is not possible, a defensible equivalent is required. Where simulations, role-plays and/or case studies are used, these should be supported by evidence that the learner can apply the knowledge and skills in a real situation. In this qualification there is a conscious effort to link theory and practice. In some interpretations (see for example Chapter 1) integrated assessment is seen both as the assessment of theoretical knowledge and (but separately) of practical skills. As mentioned before (see Chapter 1 p 12), this approach effectively perpetuates the distinction between knowledge and skills. Integrated assessment approaches are intended to assess applied competence, which is a combination of knowing, doing, understanding and the application of knowledge.

3.2.3 Remember that assessment is not a once-off event

In keeping with the principle that assessment should support learning, clearly a single assessment will not provide opportunities for diagnoses, development and remediation. A range of assessments intended to build and support understanding and application will be more appropriate. However, the results of formative assessments could form part of a portfolio of evidence for a summative evaluation of the overall purposes of the unit(s) of learning.

3.2.4 Provide sufficient evidence

There is a mistaken perception that outcomes-based assessment promotes an "all-or-nothing" approach, i.e. a learner is either competent or not yet competent. Outcomes-based assessments are carried out in terms of the overall purpose of unit standards and qualifications. The assessment is of the outcome. However, not all outcomes that make up the qualification or unit standard are equally "important". The core of the standard/qualification specifies the key competencies that are critical to achieve (see 3.2.1 above). In an assessment plan the various assessments should be appropriately weighted. Elective parts of a qualification cannot "count" as much as the core or fundamental parts. The credit-rating of the composite parts of the qualification will provide guidance in this regard. It may happen that "elective" components in one qualification are the "core" components of another. The weighting of the assessment should therefore be adjusted to link directly with the main purpose, i.e. the core of the unit standard, unit of learning or qualification.

Sufficiency (of evidence) may mean the following:

- The sample of the learning to be assessed is sufficiently representative of the overall purpose of the unit(s) of learning.
- Assessors are convinced that learners can provide sufficient evidence in relation to the sample mentioned above for them to infer that the performance can be repeated at the same level and with the required quality.

3.2.5 Make assessment plans accessible to role players so that they are familiar with the plan

The principles of transparency and fairness mean that at the start of the learning programme learners should have access to and are familiar with the following:

- the purpose of the assessment(s) (i.e. formative or summative).
- how the assessment(s) will be conducted (i.e. written, oral, assignment, project, case study, workplace-based, etc.) at what stage assessments will be conducted (i.e. at intermediate stages or at exit level stage).
- what the assessment(s) is/are intended to evaluate and what the criteria are for successful achievement.
- the weighting of the assessment(s) in relation to the overall purpose of the unit(s) of learning.
- how and when feedback will be provided.

3.3 BROAD GUIDELINES FOR THE DESIGN OF INTEGRATED ASSESSMENT APPROACHES

The following non-prescriptive guidelines were developed at the consultative workshop. They attempt to assist education and training practitioners to make sense of and to integrate assessment activities with learning and teaching in a supportive way. It is hoped that these guidelines will clarify the purposes of assessment throughout the learning programme and facilitate the sequencing of assessment "moments". The guidelines (or steps) include the following:

1. Study the level descriptors for a particular NQF level
2. Study the purpose of the qualification
3. Analyse the exit level outcomes, the critical cross-field outcomes and the main learning areas that deal with each dimension of the purpose of the qualification
4. Identify discrete areas that need to be assessed separately
5. Identify ways to facilitate integrated teaching and learning in areas where applied competence will be assessed
6. Sequence the assessment in accordance with the assessment plan
7. Design the assessment instruments
8. Review the process, instruments and application

3.3.1 Study the level descriptors for a particular NQF level

Level descriptors are those statements describing learning achievement at a particular level of the NQF. Level descriptors furthermore attempt to ensure the following:

> … coherence across fields of learning in the allocation of qualifications and standards to particular levels, and (shall) [to] facilitate the assessment of the international

comparability of standards and qualifications (Regulations relating to Level Descriptors for Levels 1 to 4 of the National Qualifications Framework, No 1348, September 2003: 3).

It is necessary to consider carefully the level, breadth and depth of learning required on a generic basis and at a particular level of the NQF to get an idea of what should be taught, learnt and assessed to ensure that learners meet the requirements for credits on a particular level. Level descriptors will form part of a matrix against which the purpose, exit level outcomes and assessment criteria can be matched to ensure that the full range of learning is covered in the learning programme. This will include the teaching, learning and assessment activities that inform the assessment plan.

For example, level descriptors on NQF level 4 indicate the following:

A learning programme leading to the award of a qualification or unit standards at NQF level 4 shall develop learners who demonstrate the following attributes:	
(a) applied competence	
(i)	a capacity to take the initiative to address any shortcomings they find a fundamental knowledge of the most important areas of one or more fields or disciplines, in addition to the fundamental areas of study
(ii)	an informed understanding of the key terms, rules, concepts, established principles and theories in one or more fields or disciplines
(iii)	an understanding of the organisation or operating environment as a system within a wider context
(iv)	an ability to apply essential methods, procedures and techniques of the field or discipline
(v)	an ability to apply and carry out actions by interpreting information from texts and operational symbols or representations
(vi)	an ability to use their knowledge to solve common problems within a familiar context;
(vii)	an ability to adjust an application of a common solution within relevant parameters to meet the needs of small changes in the problem or operating context
(vii)	an ability to motivate the change using relevant evidence
(vii)	a basic ability to gather relevant information, to analyse and evaluate it
(x)	an ability to communicate and present information reliably and accurately verbally and in writing
(b) autonomy of learning	
(i)	a capacity to take personal responsibility for learning within a supervised environment
(ii)	a capacity to take decisions about and responsibility for actions
(iii)	a capacity to evaluate their personal performance against given criteria
(iv)	a capacity to take the initiative to address any shortcomings they find.

Table 3.1: Level descriptors for NQF level 4

3.3.2 Study the purpose of the qualification

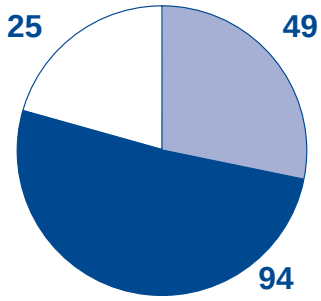
The *purpose* of the qualification highlights its core or rationale.[6] The assessment plan should therefore focus on the ability to demonstrate applied competence in terms of the requirements stated for the qualification. This should be in keeping with the breadth, depth and level of learning required for a qualification at a particular NQF level.

The assessment of these aspects will carry the most weight in terms of the overall assessment. For example, the purpose of the following qualification indicates that *managerial and entrepreneurial* competencies within a particular context will "count" the most:

> **Purpose of the Bachelor of Commerce: Tourism Management**
> The overall purpose of this qualification is to develop future managers and entrepreneurs in the tourism sphere

Excerpt 3: Bachelor of Commerce: Tourism Management

In the assessment plan, at the exit level outcome (or summative level) integrated assessment will occur in terms of the extent to which learners display applied competence in *management* and in *entrepreneurship*. The context of the qualification and the rules of combination will influence the weighting. For example, in the draft qualification *National Certificate: Information Technology: Systems Development*, the relative weighting between the composite components of the qualification out of a total of 168 credits is 49 credits for the fundamental components 94 credits for the core components and 25 credits for the elective components. This is illustrated in Figure 3.2.



The relative weighting between fundamental, core and elective components of the qualification

Figure 3.2: Weighting of assessment results

3.3.3 Analyse the exit level outcomes, the critical cross-field outcomes and the main learning areas that deal with each dimension of the purpose of the qualification

(1). Analyse the purpose of the qualification.

(2). Match the exit level outcomes or specific outcomes (for unit standards) and the critical cross-field outcomes with the level descriptors and the purpose of the qualification/unit standard/unit of learning.

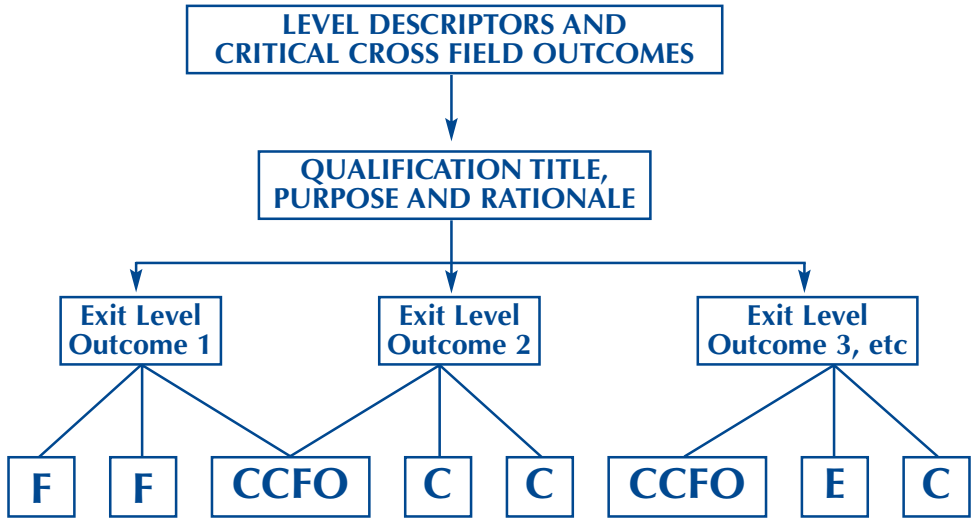
(3). Link the composite parts of the unit(s) of learning with 2 above, for example in a matrix.

[6] For additional details on a model for designing integrated assessment approaches, please refer to the publication obtainable from the website: www.saqa.org.za *Criteria and Guidelines for the Implementation of the Recognition of Prior Learning* (SAQA, 2004).

(4). Indicate the relationship between the following:[7]

- The level descriptors
- The title, purpose and rationale for the qualification/unit standard/unit of learning
- The exit level outcomes/specific outcomes (for unit standards)[8]
- The critical cross-field outcomes
- The assessment criteria
- The range

The relationship between these parts within the context of the qualification can be presented as follows:



Key: F – Fundamental components or unit standards of a qualification
C – Core components or unit standards
E – Elective components or unit standards
CCFO – Critical cross-field outcomes

Figure 3.3: The relationship between the various components of qualifications

3.3.4 Identify discrete areas that need to be assessed separately

As mentioned before (see Chapter 1, p 13; Chapter 2, p.24; Chapter 3, p. 35), integration should not be forced. The use of integrated assessment approaches to cover multiple learning areas is dependent on the context of the qualification. However, this does not mean that if a learner is to be assessed in a discrete learning area, it is not necessary to assess applied competence in that particular area. It only means that integrated assessment across disciplines is not justified in that case and the learner will therefore be assessed within the context of a particular unit of learning.

[7] Descriptions of each of these components are available in Appendix 4.
[8] Two types of qualifications are registered on the NQF: unit standard-based qualifications and non-unit standard-based qualifications. Unit standard-based qualifications are made up of unit standards, which are the smallest coherent units of learning linked to the overall purpose and exit level outcomes of the qualification, while non-unit standard-based qualifications specify only exit level outcomes and assessment criteria and are not made up of distinct unit standards.

3.3.5 Identify ways to facilitate integrated teaching and learning in areas where applied competence will be assessed

It needs to be emphasised once again that an assessment plan should not be an add-on, conceptualised and conceived at the end of a learning programme. Assessment, to be *in the service of the learner and of learning* must be integral to the development of the curriculum and the learning programme. Furthermore, in order to assess applied competence, it needs to be at the forefront of *what is being taught*. All learning and teaching activities undertaken in the course of the learning programme must focus on integrating understanding, practice and reflection.

A useful guide for conceptualising the teaching, learning and assessment activities as a coherent whole appears as Figure 1.2: "Towards teaching, learning and assessing in an integrated fashion" in Chapter 1.

3.3.6 Sequence the assessment in accordance with the assessment plan

In the beginning stages of a learning programme, opportunities for inter-disciplinary or inter-unit standard integrated assessment may be limited. This is because "novice" learners need to be exposed to the basic operations, concepts and principles of a field of learning before they can be expected to form linkages between various components. At the beginning stages of a learning programme integrated assessment could focus on how theory and practice can be integrated in that particular field of learning. As learners progress in the learning programme, an assessment plan should make clear at what stages and for what purposes inter-disciplinary (or inter-unit standard) integrated assessments will take place. For example, if a programme consists of *Communication, Accounting* and *Business Management*, then the assessment plan should indicate why and when integrated assessments could be undertaken. This is illustrated in figure 3.4.:

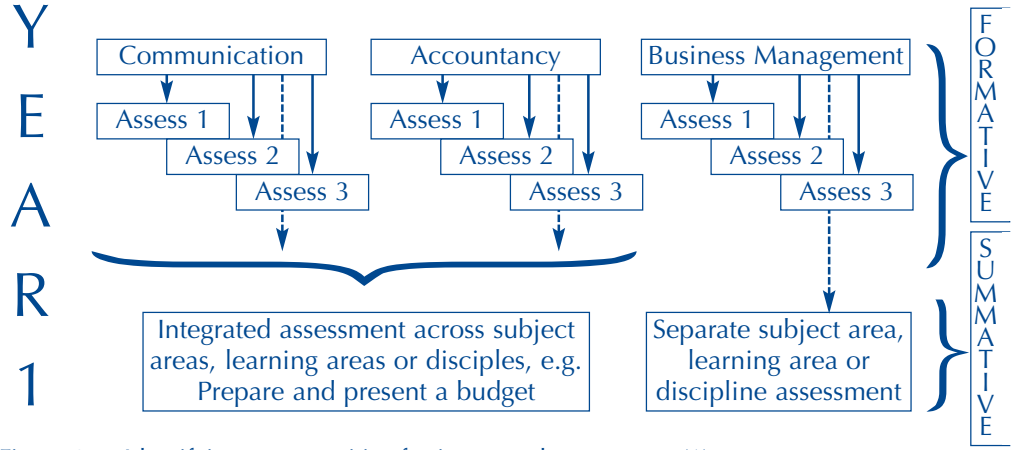


Figure 3.4: Identifying opportunities for integrated assessment (1)

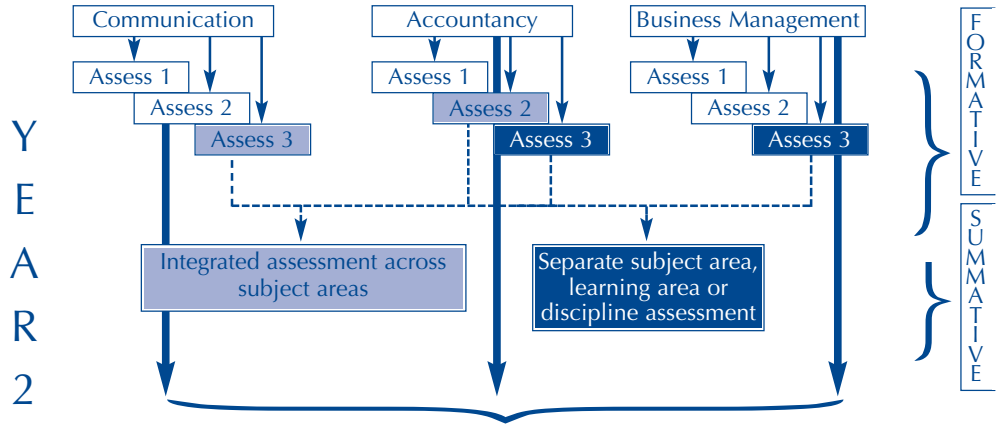
Note:

- *"YEAR 1" can be replaced with "Semester/Term" or any other appropriate logical end point of the learning programme.*
- *It may be necessary to develop a range of integrated assessment approaches.*

3 TOWARDS DESIGNING INTEGRATED ASSESSMENT APPROACHES

As mentioned before, in the early stages of a learning programme it may be necessary to structure a much greater range of formative (or developmental) assessments before inter-disciplinary/inter-field of learning integrated assessments can be undertaken. The use of the latter can be increased when learners becomes familiar with the differing concepts and principles of the various disciplines/fields of learning. This is illustrated in Figure 3.5.

Figure 3.5: Identifying opportunities for integrated assessment (2)



Integrated assessment across subject areas, learning or disciplines, e.g. Prepare and present a business plan

Note:

- *Integrated assessment will not always occur across subject areas. Coherent "chunks of learning" within a particular subject area, learning areas or discipline should also be assessed through integrated assessment approaches. As noted before , a range of integrated assessment approaches may be required.* The above diagrams show that there are many possible and appropriate opportunities for making use of integrated assessment approaches. The context, including the infrastructure and resources of the provider, will determine the feasibility of such processes.

3.3.7 Design the assessment instruments

At the point when assessment instruments are designed practitioners should decide how best learners will be able to demonstrate applied competence (refer to Figure 1.2 Chapter 1). **To reiterate, assessment should not be a once-off procedure, applied at the end of the learning programme, but should be integral to the teaching and learning throughout the learning programme**. A range of assessment instruments will be needed for different purposes, for example for diagnostic or formative purposes and for summative purposes. The assessment instrument must indicate clearly the relative weighting in relation to the assessment.

3.3.8 Review the process, instruments and application

This is a critical part of the overall process and will be used for quality assurance purposes. More importantly it should be used to evaluate the integrated assessment approaches developed and to test the effectiveness and practicability of the instruments and their application.

CONCLUSION

The principles and approach described in this chapter are intended to simplify complex curriculum questions. This does not imply that it is a simple process but that it is a useful tool with which to develop approaches to assessment that will enhance and encourage meaningful learning.

The broad principles and guidelines given in this chapter are not intended to be prescriptive. It is to be expected in a new approach to assessment that such guidelines will improve with practice. It is also important to remember that assessments must be contextualised for the qualification and for the situation within which they will take place. An important and critical principle is the need for holistic planning. Assessment strategies can no longer be planned and implemented as an end in themselves. The key to assessment is the way in which integrated assessment can be used to assess applied competence.

The final chapter of this publication will deal with the application of the principles and guidelines proposed in this chapter.

CHAPTER 4:
EXAMPLES OF INTEGRATED ASSESSMENT APPROACHES

PURPOSE OF THIS CHAPTER

The purpose of this chapter is to provide examples of integrated assessment approaches. The examples are not exhaustive and do not claim to be generalisable to all contexts, but they attempt to use the broad principles and guidelines for the design of integrated assessments proposed in Chapter 3.

INTRODUCTION

The following two examples will attempt to demonstrate how integrated assessment approaches can be applied in different contexts. The first example is of a summative assessment at the end of the three-year learning programme that uses a non-unit standard-based qualification (or exit level outcomes qualification). The second example explores the use of integrated assessment using a unit standard-based qualification.

4.1 INTEGRATED ASSESSMENT: EXAMPLE 1 — NON-UNIT STANDARD-BASED QUALIFICATION

This example is based on the NQF registered qualification entitled *Certificate: Tourism Management* (NQF level 5, Identity number: 36030). The description of the qualification is attached as Appendix 1. This assessment could be part of a set of assessments (including, where appropriate, a written examination) and therefore focuses on the macro level of integrated assessment, namely the purpose, rationale and exit level outcomes of the qualification (refer to Figure 1.1). The first step is to study the level descriptors for a particular NQF level:

NQF level 5[9]	Applied Competence	Autonomy of Learning
TYPICALLY, A PROGRAMME LEADING TO THE AWARD OF A QUALIFICATION OR UNIT STANDARD AIMS TO DEVELOP LEARNERS WHO DEMONSTRATE THE FOLLOWING ATTRIBUTES:		
a fundamental knowledge of the main areas of one or more fields or disciplines b an informed understanding of the important terms [used], rules concepts, principles and theories in one or more fields or disciplines c. an understanding of the organisation or operating environment as a system within a wider context and in relation to the society; Does this mean a particular professional society or society in general? If the latter, it should be merely 'society' without a definite article. d an ability to effectively apply essential methods, procedures and techniques of the field or discipline e an ability to interpret, convert and evaluate texts and operational symbols or representations f an ability to use 'acquired' knowledge to solve well-defined problems both routine and unfamiliar within a familiar context g an ability to adjust an application of a solution within relevant parameters to meet the needs of changes in the problem or operating context h an ability to evaluate the change using relevant evidence efficient information-gathering, analytical and synthesising, and evaluating skills; j presentation skills using appropriate technologies k an ability to communicate information coherently and reliably both verbally and in writing using basic conventions of an academic/professional discourse		l. the capacity to take personal responsibility for learning within a supervised environment; m. an ability to take personal decisions about and personal responsibility for actions; and n. an ability to evaluate personal performance against given criteria.

Table 4.1: Level descriptors for NQF level 5

The level descriptors for NQF level 5 indicate that at this level learners are expected to have applied competence in the following (amongst others):

- the fundamental areas of one or more disciplines
- the rules, principles and theories relevant to specific disciplines/fields of learning
- the operational symbols, procedures, operations and techniques of the discipline/ field of learning
- the use of procedures and techniques to solve routine problems
- information-gathering, analysis and presentation skills
- presenting and communicating coherent and reliable information using the conventions of academic/professional discourse.

[9] The level descriptors for NQF levels 5 – 8 have not been finalised. These draft level descriptors were made available for public comment between 3 December 2001 and 28 February 2002. In this publication they are used only as examples.

4

EXAMPLES OF INTEGRATED ASSESSMENT APPROACHES

Level descriptor and autonomy of learning: NQF level 5	Generic critical cross-field outcomes
The ability to select and use a range of procedures and techniques to solve routine problems.	Identifying and solving problems where responses to problems show that critical and creative thinking has been used to make responsible decisions.
The ability to work within a system within a wider context and in relation to society.	Working effectively with others as a member of a team, group, organisation or community.
The capacity to take responsibility for one's learning within a structured learning environment.	Organising and managing oneself and one's activities responsibly and effectively.
The skills to effectively gather information, to analyse and present such information.	Collecting, analysing and critically evaluating information.
The ability to present and communicate information coherently and reliably using the basic conventions and formats of an academic/professional discourse.	Communicating effectively using visual, mathematical and/or language skills in oral and/or written presentations.
The ability to interpret and apply the operational symbols, procedures and techniques of a discipline or field.	Using science and technology effectively and critically; showing responsibility towards the environment and the health of others.
Comprehensive knowledge of the main areas of one or more disciplines or fields; A sound understanding of a discipline or field's key terms, rules, concepts, established principles and theories.	Demonstrating an understanding of the world as a set of related systems by recognising that problem-solving contexts do not exist in isolation.
The ability to evaluate personal learning and to identify personal strengths and weaknesses.	Reflecting on and exploring a variety of strategies to learn more effectively.
The capacity to take personal responsibility for learning within a structured learning environment.	Participating as responsible citizens in the life of local, national and global communities.
	Being sensitive to different cultures, assigned meanings and perceptions across a range of social contexts.
The ability to select and use a range of procedures and techniques to solve routine problems.	Developing entrepreneurial opportunities.

Matrix 4.1: Matching the level descriptors and critical cross-field outcomes

The design of integrated assessment approaches in assessment instrument(s) should seek to determine the extent to which learners have achieved applied competence in relation to a qualification pitched at a particular NQF level.

As indicated in Chapter 3, the level descriptors provide the broadest description of what learners who achieve qualifications at this level have achieved on successful completion. They also give guidance in relation to the depth and breadth of learning required. At NQF level 5, for example, it is not required of learners to have acquired detailed, in-depth knowledge of a discipline or field, rather they need to have mastered the "main areas of one or more disciplines/fields" (refer to Table 4.1).

By matching the level descriptors and the critical cross-field outcomes, planners are assured that both the depth and breadth and critical generic outcomes are incorporated into the plan.

4.1.2 Study the purpose of the qualification

In keeping with the guidelines given in Chapter 3 for the design of integrated assessment approaches, the next step is to analyse the title, purpose and rationale of the qualification. The purposes and rationale of the *Certificate: Tourism Management* are as follows:

CERTIFICATE: Tourism Management NQF level 5

Certificate: Tourism Management NQF level 5
Purpose of the qualification:

- To promote an understanding of the interrelated nature of the sectors in the tourism industry
- To enhance learners' knowledge of legal and ethical principles applicable to the tourism industry, e.g. the impact of tourism
- To develop management supervisory skills
- To ensure improvement of management and customer service standards in the tourism industry
- To develop innovative thinking, leading to entrepreneurial skills, particularly to develop economic growth in developing regions in order to alleviate poverty through tourism Small-, Medium- and Micro Enterprises (SMMEs) Rationale

With the recent decline in tourism in western countries, Africa is gaining popularity among tourists. Due to the higher standard of living of a large part of the South African population, domestic tourism has also grown. Tourism creates employment, generates income and alleviates poverty – this is the most important reason why a qualification like this is necessary. However, this Tourism Management qualification does not intend to train learners for the transport or travel agency sectors, but rather to train practitioners to ensure sustainability in the tourism industry.

Excerpt 4: Certificate: Tourism Management

The *purpose* of a qualification highlights the *core*, the *rationale* of the qualification.
In keeping with the breadth and depth of learning required at this level, a summative assessment plan should focus on the ability to demonstrate applied competence in terms of the purposes of the qualification.
In this case, the core of the qualification deals with the following three aspects:

(i) Knowledge and understanding of the tourism industry, including the legal and ethical principles applicable to tourism
(ii) Management skills
(iii) The development of entrepreneurial skills

Aspects of the integrated assessment dealing with the core should receive the greatest weighting of the component parts. Theoretically, the relative weighting in terms of the components of this particular qualification could be equal core credits for "knowledge and understanding of the tourism industry", "management skills" and "entrepreneurial skills", with less credits for fundamentals such as "mathematical literacy" and "communication". The least (and remaining) credits are allocated in terms of the rules of combination for elective components.

At this point it is important to decide on the purpose of assessment. The purpose of an integrated assessment will inform the planning. Once practitioners have a good oversight of a qualification and its components and their relative "importance", they have to decide why and where integrated assessment will take place. In this case the purpose is a summative assessment. A careful consideration of the relative weighting of each of the parts of the assessment is therefore critical.

4 EXAMPLES OF INTEGRATED ASSESSMENT APPROACHES

4.1.3 Analyse the exit level outcomes, the critical cross-field outcomes and the main learning areas that deal with each dimension of the purpose of the qualification

As mentioned before, the exit level outcomes and their associated unit standards and assessment criteria (in the case of non-unit standards-based qualifications) are important sources of information as to what should be assessed to determine applied competence and to indicate the quality of the evidence to be produced by learners. At this point, possibilities for integrated assessment emerge. The matrix below lists the exit level outcomes and their associated assessment criteria and links these with the fundamental, core or elective learning areas of the qualification:

	Exit level outcome	Associated assessment criteria	Fundamental Core or Elective Learning Areas
1	Demonstrate verbal and non-verbal communication skills for service excellence	1.1 Read to interpret and write to produce common formats of written communication 1.2 Listen to interpret and speak to produce common formats of oral communication 1.3 Interpret and produce common formats of non-verbal communication	Communication (fundamental)
2	Use technology efficiently	2.1 Use computer software to produce verbal and non-verbal communication 2.2 Access information through the Internet 2.3 Access and use e-mail 2.4 Operate technological aids used for office administration and communication	Communication (fundamental)
3	Manage time and resources efficiently	3.1 Tourism activity is correctly planned 3.2 Organisation of time and resources is outlined 3.3 Control measures are indicated 3.4 Supervising skills are correctly applied 3.5 Apply the basic management functions in a small tourism activity	Management (core)
4	Apply basic entrepreneurial skills	4.1 Research feasibility of a business idea 4.2 Do basic market research 4.3 Produce a basic business plan	Entrepreneurship (core)
5	Apply basic knowledge and skills to efficiently manage a business	5.1 Demonstrate knowledge of basic economic principles and policies 5.2 Assist in the organisation of management functions	Economics Management (core)
6	Implement and produce proper financial management accounts	6.1 Compile and process accounting data of a going concern 6.2 Financial transactions are correctly recorded in a general ledger 6.3 A trial balance is correctly drawn up 6.4 Account for assets and liabilities 6.5 Compile company annual financial reports	Financial accounting (elective)
7	Demonstrate an understanding of the dynamics of the inter-related sectors of the tourism industry	7.1 Describe the composition of the tourism industry 7.2 Describe the different sectors of the tourism industry 7.3 Describe the roles and interrelationships between the tourism sectors 7.4 Identify trends in the tourism industry	Travel and Tourism (core)

Matrix 4.2: Exit level outcomes, associated assessment criteria and learning areas

In a set of summative assessments, assessment designers could therefore identify the following opportunities for integrated, inter-disciplinary assessments:

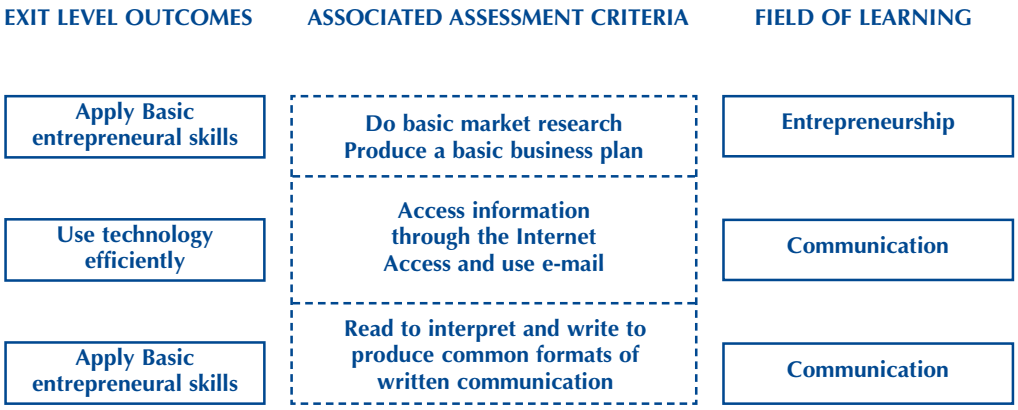


Figure 4.1: Opportunities for inter-disciplinary integrated assessment

In Figure 4.1 the use of the Internet and e-mail communication are integrated in an assessment of the ability to undertake market research and to produce a business plan.

However, it will not always be possible to assess every aspect of the qualification in an integrated fashion. The areas where assessment will be of discrete parts of the qualification must be identified.

4.1.4 Identify discrete areas that need to be assessed separately

In this case, because of the technical nature of financial accounting, it may not be possible to assess the full range of learning through a single integrated assessment. Therefore it may be necessary to design an integrated assessment instrument that for example deals with the application of knowledge particularly within the accounting discipline:

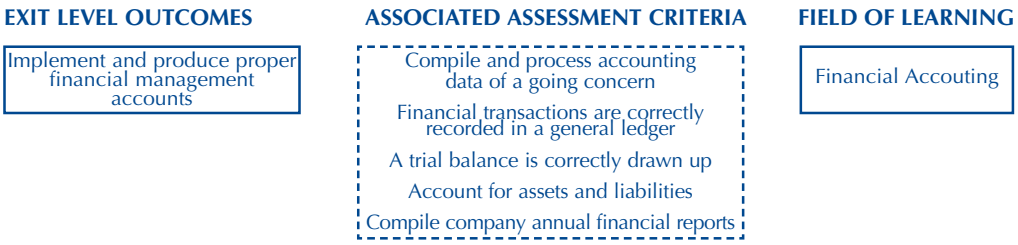


Figure 4.2: Integrated assessment within a particular discipline/field of learning

Integrated assessment comes after integrated teaching and learning. Practitioners must identify ways in which the teaching and learning will support the application of integrated understanding, knowledge and skills.

4.1.5 Identify ways to facilitate integrated teaching and learning in areas where applied competence will be assessed

Figure 1.2 in Chapter 1 is a useful model for developing integrated approaches to teaching,

learning and assessment. For example, in the *Certificate: Tourism Management*, it would be sensible to structure teaching and learning activities dealing with *management* together with those dealing with management of a *tourism enterprise* and those dealing with the *economic environment* that may impact on the management of such an enterprise. The following exit level outcomes, associated assessment criteria and the fields of learning could be *taught* in an integrated manner:

EXIT LEVEL OUTCOMES	ASSOCIATED ASSESSMENT CRITERIA	FIELD OF LEARNING
Manage time and resources effeciently	Tourism activity is correctly planned Organisation of time and resources is outlined Control measures are indicated Supervising skills are correctly applied Apply the basic management functions in a small tourism activity	Financial Accouting
Apply basic knowledge and skills to efficiently manage a business	Demonstrate knowledge of basic economic principles and policies Assist in the organsation of management functions	Economics and Management

Figure 4.3: Opportunities for inter-disciplinary integrated teaching and learning

4.1.6 Sequence the assessments in accordance with the assessment plan

In this example the assessment is a summative assessment dealing with the exit level outcomes of the qualification. Therefore it will occur at the end of the learning programme. However, the assessments that will help develop the abilities of learners to reach this point must be clearly spelt out. The sequencing of assessment is illustrated in Figures 3.4 and 3.5 (Chapter 3). For the *Certificate: Tourism Management*, the sequence of the formative (or developmental) assessments could be as follows:

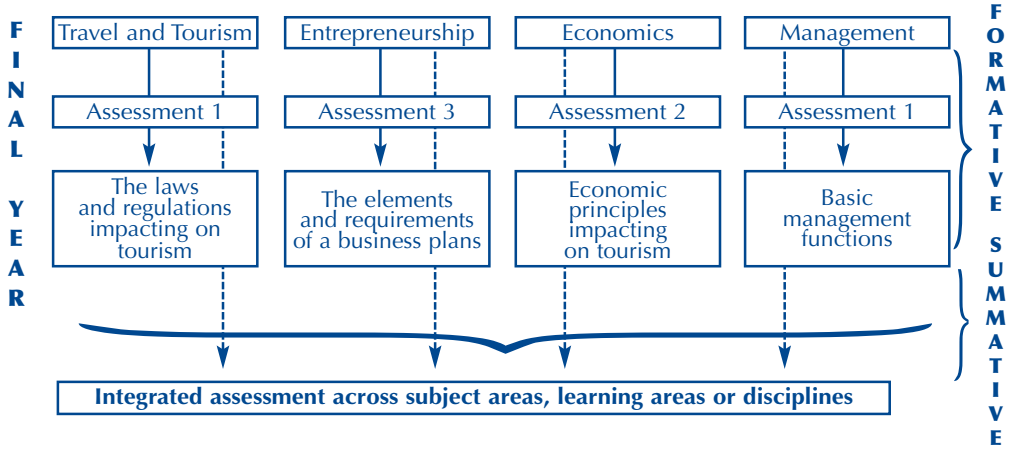


Figure 4.4: Sequencing assessment activities

4.1.7 Design the integrated assessment instruments

At this stage, the assessment designer(s) should have a clear idea of how, for what purpose and where integrated assessment approaches can be used. The next step is to design assessment instruments and to decide on the weighting of each component part of the assessments. Below is an example of an integrated assessment instrument that can be used as part of a set for the *Certificate: Tourism Management*.

Conduct **research** into the **feasibility** of a **tourism activity** in a particular context. Your research must culminate in a **report** and an **oral presentation** giving the details of your findings.

The report must reflect:

- The proposed tourism activity, based on an analysis of regional, national and international trends in the tourism industry as appropriate.
- The economic, ethical, social and environmental **impact** of the proposed tourism activity.
- A business plan detailing the **resources, risk management and financial management** needed to initiate and sustain the activity.
- The other **role players/partners** who will be needed to initiate and sustain the activity.

A project of this nature will cover most of the exit level outcomes and their associated criteria for the *Certificate: Tourism Management*. For example, each of the highlighted words above encapsulates a host of the criteria. To test the coverage of the exit level outcomes, the associated assessment criteria and learning areas, the different elements of the assessment could be placed in a matrix, as follows:

Highlighted Word	Exit Level Outcomes	Assessment criteria
Research	Use technology efficiently	1.1; 2.2; 4.1; 4.2
Feasibility	Apply basic entrepreneurial skills	1.1; 2.2; 4.1; 4.2; 5.1;
Tourism activity	Demonstrate an understanding of the dynamics of the interrelated sectors of the tourism industry, the legal and ethical issues and possible impact	7.1; 8.1; 8.2
Report	Demonstrate verbal and non-verbal communication skills	1.1; 1.2; 1.3; 2.1; 2.4
Oral presentation	Demonstrate verbal and non-verbal communication skills	1.1; 1.2; 1.3; 2.3; 2.4
Trends	Demonstrate an understanding of the dynamics of the interrelated sectors of the tourism industry	7.4; 9.6
Impact	Demonstrate basic knowledge of legal and ethical principles pertaining to the tourism industry Demonstrate an understanding of the potential positive and negative physical/environmental, economic and social/community consequences of tourism	9.1; 9.3; 9.5
Resources	Apply basic knowledge and skills to effectively manage a business Manage time and resources efficiently	3.1; 3.2; 4.3; 5.2; 8.3
Risk management	Apply basic knowledge and skills to effectively manage a business Manage time and resources efficiently	3.3; 3.4; 3.5; 9.2; 9.4
Financial management	Apply basic knowledge and skills to effectively manage a business Manage time and resources efficiently Implement and produce proper financial management accounts	6.1; 6.2; 6.4
Role players/ partners	Demonstrate an understanding of the dynamics of the interrelated sectors of the tourism industry	7.2; 7.3

Matrix 4.3: Coverage of exit level outcomes by the integrated assessment instrument

4

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Keeping in mind that the areas where separate assessments of discrete learning areas were identified earlier, the relative weighting of each of the component parts of this integrated assessment should be defined and agreed. This should be in line with the overall purpose of the qualification. The purpose of the qualification indicated three key aspects that will indicate applied competence, namely

(i) Knowledge and understanding of the tourism industry, including the legal and ethical principles applicable to tourism
(ii) Management skills
(iii) The development of entrepreneurial skills

These aspects will therefore carry the most weight in terms of the assessment. Matrix 4.4 can be used as the basis for a marking guide. It demonstrates the notion of weighting in relation to the overall purpose (the core) of the qualification. It also enables the assessor to report on the composite parts of the assessment:

Overall Purpose of the qualification	Evidence from the assessment	Associated assessment criteria	Relative Weighting
Knowledge and understanding of the tourism industry, including the legal and ethical principles applicable to tourism	The proposed tourism activity, based on an analysis of regional, national and international trends in the tourism industry as appropriate. The economic, ethical, social and environmental impact of the proposed tourism activity	7.1; 7.2; 7.3; 7.4; 8.1; 8.2; 9.6; 9.1; 9.3; 9.5	30%
Management skills	A business plan detailing the resources, risk management and financial management needed to initiate and sustain the activity	3.1; 3.2; 3.3; 3.4; 3.5; 4.3; 5.2; 6.1; 6.2; 6.4; 8.3; 9.2; 9.4	40%
The development of entrepreneurial skills	Conduct research into the feasibility of a tourism activity in a particular context The other role players/partners that will be needed to initiate and sustain the activity	1.1; 2.2; 4.1; 4.2; 5.1; 7.2; 7.3	20%
Other exit level outcomes such as: The use of technology Communication	Conduct research Your research must culminate in a report and an oral presentation giving the details of your findings	1.1; 2.2; 4.1; 4.2 1.1; 1.2; 2.1; 2.3; 2.4	10%

Matrix 4.4: The relative weighting of the composite parts of the integrated assessment

4.1.8 Review the process, instruments and application

The final step is a standard step as part of the internal moderation of assessment results, the quality assurance of the assessment process, including the quality assurance of assessor practice, and the review of the assessment instrument for appropriateness and effectiveness[10].

[10] For more details on internal and external moderation, refer to the Criteria and Guidelines for the Assessment of NQF registered Unit Standards and Qualifications (SAQA, 2001), obtainable from: www.saqa.org.za

4.2 INTEGRATED ASSESSMENT: EXAMPLE 2 — UNIT STANDARD-BASED QUALIFICATION

The second example is based on the NQF registered qualification entitled *National Certificate: Generic Project Management* (NQF level 4, Identity number: 21160).
The description of the qualification is attached as Appendix 1. As before, the assessment will be a part of a set of assessments (including a written examination where appropriate) and could focus on formative (the meso level – refer to Figure 1.1), as well as summative assessments (the macro level).

In keeping with the need to develop a holistic assessment strategy, the first step is to study the level descriptors for a particular NQF level: Consult Table 4.2 where the Level descriptions for NQF level 4 are given.

4.2.1 Study the level descriptors for a particular NQF level

A learning programme leading to the award of a qualification or unit standards at NQF level 4 develop learners who demonstrate
(a) applied competence
(i) a fundamental knowledge of the most important areas of one or more fields or disciplines, in addition to the fundamental areas of study;
(ii) an informed understanding of the key terms, rules, concepts, established principles and theories in one or more fields or disciplines;
(iii) an understanding of the organisation or operating environment as a system within a wider context;
(iv) an ability to apply essential methods, procedures and techniques of the field or discipline;
(v) an ability to apply and carry out actions by interpreting information from texts and operational symbols or representations;
(vi) an ability to use knowledge to solve common problems within a familiar context;
(vii) an ability to adjust an application of a common solution within relevant parameters to meet the needs of small changes in the problem or operating context;
(viii) an ability to motivate the change using relevant evidence;
(ix) a basic ability to gather relevant information, analytical and evaluating skills ; and
(x) an ability to communicate and present information reliably and accurately in writing and verbally.
(b) autonomy of learning
(i) a capacity to take responsibility for learning within a supervised environment;
(ii) a capacity to take decisions about and responsibility for actions;
(iii) a capacity to evaluate their performance against given criteria; and
(iv) a capacity to take the initiative to address any shortcomings they find.

Table 4.2: Level descriptors for NQF level 4

The level descriptors for NQF level 4 indicate that at this level learners are expected to have applied competence in:

- the most important areas of one or more fields/disciplines
- the use of key terms, rules, concepts, established principles and theories in the above fields/disciplines
- the operating environment as a system within a wider context

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- methods, procedures and techniques of the field/discipline
- gathering, analysing and evaluating, as well as and interpreting information from texts and symbols
- solving common problems
- adjusting applications within the operating context and motivating why
- communicating and presenting information

Level descriptor and autonomy of learning	Generic critical cross-field outcomes
The ability to solve common problems The ability to adjust applications within the operating context and motivate why	Identifying and solving problems where responses to problems show that critical and creative thinking has been used to make responsible decisions
	Working effectively with others as a member of a team, group, organisation or community
The capacity to take decisions about and responsibility for actions	Organising and managing oneself and one's activities responsibly and effectively
Gathering, analysing and evaluating, as well as interpreting information from texts and symbols	Collecting, analysing and critically evaluating information
Communicating and presenting information	Communicating effectively using visual, mathematical and/or language skills in oral and/or written presentations
The use of key terms, rules, concepts, established principles and theories in the above fields/disciplines	Using science and technology effectively and critically, showing responsibility towards the environment and the health of others
The operating environment as a system within a wider context	Demonstrating an understanding of the world as a set of related systems by recognising that problem-solving contexts do not exist in isolation
The capacity to evaluate personal performance against given criteria The capacity to take the initiative to address any shortcomings they find	Reflecting on and exploring a variety of strategies to learn more effectively
	participating as responsible citizens in the life of local, national and global communities
	Being sensitive to different cultures, assigned meanings and perceptions across a range of social contexts

A matrix is useful to match level descriptors and critical cross-field outcomes:
Matrix 4.5: Matching level descriptors and critical cross-field outcomes

Note: There is not always a one-to-one relationship between the level descriptors and critical cross-field outcomes. Also, some critical cross-field outcomes will only become evident in practice, e.g. "working effectively with others as a member of a team, group, organisation or community". The next step, if the guidelines are found to be useful, is to study the purpose of the qualification.

4.2.2 Study the purpose of the qualification

The purpose of this qualification provides a description of the core competences, as well as the context within which this qualification will be offered:

National Certificate: Generic Project Management
Purpose of the qualification: The primary purpose of the qualification is to provide learners with: • A foundation of basic project management skills which can be used to build further project management related competences • Competence to be effective project team members • Competence to execute small, simple projects • Competence to provide assistance to a project manager of large projects Rationale: This qualification reflects the needs of the project management sector, both now and in the future, for a general (not sector specific) skills pool. This qualification is intended for a project level that will include working as a leader in the context of a small project/sub-project involving few resources and having a limited impact on stakeholders and the environment or working as a contributing team member on a medium to large project when not a leader. The prospective candidate for this qualification may be a person who is entering the workplace or has been working in the workplace and has limited formal project management training/competence. Such a person may be working part time or full time with projects. They may be a team member or in a specialised support role such as Project Secretary, Project Administrator, procurement or cost support, planner – estimator support.

Excerpt 5: National Certificate: Generic Project Management

The *purpose* of the qualification highlights the *core*, the *rationale* of the qualification.
In this case, the core of the qualification deals with:

- Basic project management skills to execute small projects
- Support functions to assist with large projects

At this point it is important to decide on the purpose of assessment. The purpose of an integrated assessment will inform the planning. Once practitioners have a good oversight of a qualification and its components and their relative "importance", they have to decide why and where integrated assessment will take place. In keeping with the core of the qualification, the purpose of assessment could be formative or summative. In formative integrated assessments the purpose could be the progressive exposure to and application of project management skills. A summative assessment could assess the extent to which learners can apply basic project management skills in the execution of a small workplace project.

4.2.3 Analyse the exit level outcomes, the critical cross-field outcomes and the main learning areas that deal with each dimension of the purpose of the qualification

In a matrix, the following opportunities for integrated assessments emerge

Exit level outcome	Unit standard titles	Fundamental, Core or Elective learning areas
Contribute and provide assistance to a project's scope, life cycle activities and the effective execution of the project plan by applying the correct range of project management tools and ensuring project work is carried out according to plan	• Provide assistance in implementing and assuring project work is conducted in accordance with the project quality plan • Apply a range of project management tools • Contribute to project initiation, scope definition and scope change control • Schedule project activities to facilitate effective project execution • Use language and communication in occupational earning programmes	Core (6 credits) Core (8 credits) Core (9 credits) Core (8 credits) Fundamental (5 credits)
Support the implementation of the project plan in response to outcomes evaluated and assessed and provide related inputs to keep the project on track	• Contribute to the management of project risk within field of personal expertise • Identify, organise and coordinate project life cycle phases for control purposes • Identify, suggest and implement corrective actions to improve quality • Monitor, evaluate and communicate project schedules • Accommodate audience and context needs in oral communication • Interpret and use information from texts • Use language and communication in occupational learning programmes • Schedule project activities to facilitate effective project execution	Core (5 credits) Core (5 credits) Core (6 credits) Core (4 credits) Fundamental (5 credits) Fundamental (5 credits) Fundamental (5 credits) Core (8 credits)
Perform administrative duties related to the project and documentation requirements and administer project meetings and workshops	• Conduct project documentation management to support project processes • Implement project administration processes according to requirements • Plan, organise and support project meetings and workshops • Use language and communication in occupational learning programmes • Write texts for a range of communicative contexts	Core (6 credits) Core (5 credits) Core (4 credits) Fundamental (5 credits) Fundamental (5 credits)
Contribute to project financial management issues related to cost budgets for an element of work	• Participate in the estimation and preparation of cost budgets for an element of work and monitor and control actual cost against budget • Use mathematics to investigate and monitor the financial aspects of personal, business and national issues	Core (6 credits) Fundamental (6 credits)
Work with and support team project members working on the designated project	• Work as a project team member • Evaluate and improve the project team's performance	Core (8 credits) Core (8 credits)
Perform procurement duties related to the project undertaken	• Fulfil procurement activities and supervise procurement administration • Use mathematics to investigate and monitor the financial aspects of personal, business and national issues	Core (8 credits) Fundamental (6 credits)
Supervise a project team and implement a range of procedures and systems related to one of the following types of projects: developmental, technical or business	• Supervise a project team • Support the project environment and activities to deliver project objectives	Elective (14 credits) Elective (14 credits)

Matrix 4.6: Exit level outcomes, unit standard titles and learning areas

4.2.4 Identify discrete areas that need to be assessed separately

In cases where certain learning areas may have a "high impact", or deal with a "high risk" area, it may be necessary to design discrete, separate assessment (SAQA, 2003: 64). In other cases, it may not be possible to provide sufficient evidence of applied competence in an integrated assessment. In such cases, these areas will be assessed separately. In this example of the *National Certificate: Generic Project Management*, the mathematical unit standards may need additional and separate assessment as do the language and communication unit standards. Some of the unit standards which are not included in the above matrix include the following:

Unit standard titles	Fundamental, Core or Elective learning areas
Apply knowledge of statistics and probability to critically interrogate and effectively communicate findings	Fundamental (6 credits)
Measure, estimate and calculate physical quantities and explore, critique and prove geometrical relationships in 2 and 3 dimensional space	Fundamental (4 credits)
Engage in sustained oral communication and evaluate spoken texts	Fundamental (5 credits)
Read, analyse and respond to a variety of texts	Fundamental (5 credits)
Write for a range of contexts	Fundamental (5 credits)

Table 4.3: Unit standards to be assessed separately

4.2.5 Identify ways to facilitate integrated teaching and learning in areas where applied competence will be assessed

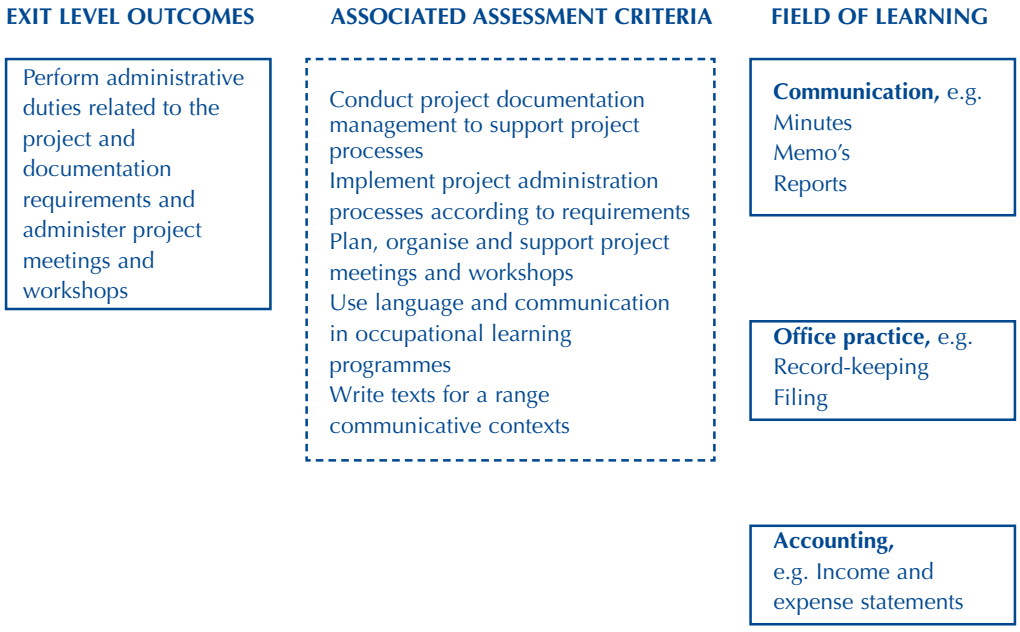

Figure 4.5: Opportunities for inter-disciplinary integrated teaching and learning

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EXAMPLES OF INTEGRATED ASSESSMENT APPROACHES

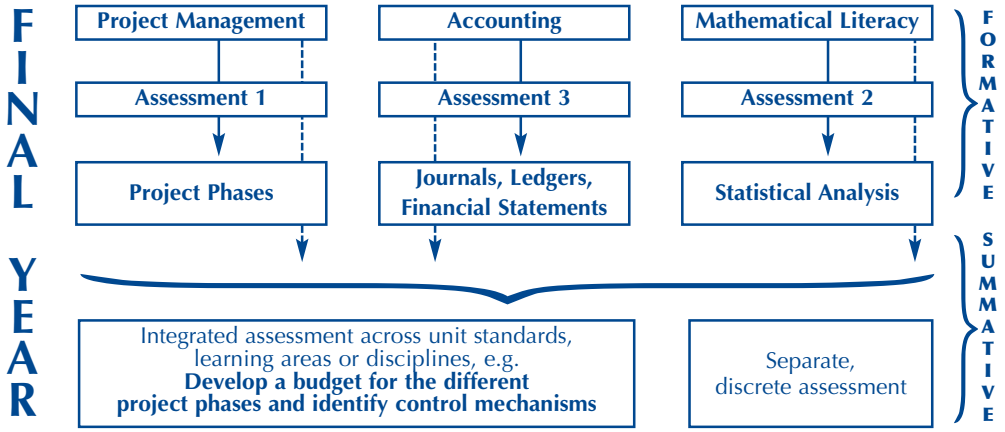

Figure 4.6: Sequencing assessment activities

4.2.7 Sequence assessment in accordance with the assessment plan

(See also Figures 3.4 and 3.5).

4.2.8 Design integrated assessment instruments

The following assessment will be conducted over a period of a few months. However, there are distinct stages in the assessment, which could be both formative and summative when the project is completed.

Identify a project that you will supervise in your work environment.

i. Develop a project plan that includes:
   - Definition of scope
   - Identification of resources required (human, financial, infrastructural)
   - Identification of risks
   - Monitoring and evaluation tools

ii. Implement the project and describe:
   - The project life cycle phases
   - The project team's performance
   - The procurement procedures and budget control
   - The documentation and administrative requirements
   - Corrective action to keep the project on track and/or to improve quality of output

iii. Develop a report to conclude the project, including:
   - The outcome and benefits of the project
   - The budget and timelines of the project
   - The review and evaluation of the process
   - The way forward on completion of the project

The different elements of the assessment can be placed in a matrix to test the coverage of the exit level outcomes, the unit standard titles and learning areas, as follows:

Highlighted word/phrase	Exit level outcomes	Unit Standard title	Credits
Supervise	Supervise a project team and implement a range of procedures and systems related to the project	• Supervise a project team • Support the project environment and activities to deliver project objective	14 14
Scope	Contribute and provide assistance to a project's scope, life cycle activities and the effective execution of the project plan by applying the correct range of project management tools and ensuring project work is carried out according to plan	• Contribute to project initiation, scope definition and scope change control • Schedule project activities to facilitate effective project execution	9 8
Resources		• Participate in the estimation and preparation of cost budgets for an element of work and monitor and control actual cost against budget	6
Risks and Corrective action	Support the implementation of the project plan in response to outcomes evaluated and assessed and provide related inputs to keep the project on track	• Contribute to the management of project risk within field of personal expertise • Identify, organise and coordinate project life cycle phases for control purposes • Identify, suggest and implement corrective actions to improve quality • Monitor, evaluate and communicate project schedules • Schedule project activities to facilitate effective project execution	5 5 6 4 8
Monitoring, review and evaluation	Support the implementation of the project plan in response to outcomes evaluated and assessed and provide related inputs to keep the project on track	• Monitor, evaluate and communicate project schedules • Evaluate and improve the project team's performance	4 8
Project phases		• Identify, organise and co-ordinate project life cycles phases for control purpose	6
Project team performance		• Evaluate and improve the project team's performahce	8
Procurement	Perform procurement duties related to the project undertaken	• Fulfil procurement activities and supervise procurement administration • Use mathematics to investigate and monitor the financial aspects of personal, business and national issues	8 6
Budget	Contribute to project financial management issues related to cost budgets for an element of work	• Participate in the estimation and preparation of cost budgets for an element of work and monitor and control actual cost against budget • Use mathematics to investigate and monitor the financial aspects of personal, business and national issues	
Documentation and administration	Perform administrative duties related to the project and documentation requirements and administer project meetings and workshops	• Conduct project documentation management to support project processes • Implement project administration processes according to requirements • Plan, organise and support project meetings and workshops • Use language and communication in occupational learning programmes • Write texts for a range of communicative contexts	6 5 4 5 5
Report		• Interpret and use information from texts • Use language and communication in occupational learning programmes • Write texts for a range of communicative contexts	5 5 5

Matrix 4.7: Coverage of outcomes by the integrated assessment instrument

4.2.9 Review the process, instruments and application

The final step is a standard step as part of the internal moderation of assessment results, the quality assurance of the assessment process, including the quality assurance of assessor practice, and the review of the assessment instrument for appropriateness and effectiveness.

CONCLUSION

It is not possible in a publication where the generic developments of integrated assessment approaches are proposed, to explore all the applications of the concept. Nevertheless, it is hoped that the guidelines provided will assist education and training practitioners to make a start and to refine the approach in practice. The guidelines and examples should be seen only as possible exemplars and should not be considered as prescriptive or final. They should be seen rather as an important starting point for discussion and debate.

LIST OF SOURCES

Bellis, I., in South African Qualifications Authority. (2000). *The National Qualifications and Curriculum Development*. Pretoria: SAQA.

Biggs, J. (2001). Assessment of student learning: where did we go wrong? *Assessment Update*, 13:6, pp. 6-11.

Biggs, J. (2001). Assessment of student learning: where did we go wrong? *Assessment Update*, 14:4, pp. 6-7.

Brooks, J.G. and Brooks, M.G. (1993). *In search for understanding. The case for constructivist classrooms*. Alexandria: The Association for Supervision and Curriculum Development.

Council on Higher Education. (2001). *A New Academic Policy for Programmes and Qualifications in Higher Education*. Discussion Document. Pretoria: CHE.

Keeves, J.P. (1994). Methods of assessment in schools. In: T. Husèn & T.N. Postlethwaite. (Eds) *The International Encyclopedia of Education*. Volume 1. Second Edition. Exeter: Pergamon. pp.362-370.

Kraak, A. (2000). Changing modes: a brief overview of the mode 2 knowledge debate and its impact on South African policy formulation. In: N. Kraak (Ed.). Changing modes. *New knowledge production and its implications for Higher Education in South Africa*. Pretoria: Human Sciences Research Council. pp. 1-37.

Local Government, Water and Related Services Sector Education and Training Authority. (2004). *Qualification Assessment Guide. Certificate in Wastewater Process Operations*. NQF level 2. LGWSETA.

Mothata, S., Van Niekerk, L. and Mays, T. (2003). Learner assessment in practice: lessons from the NPDE. *Perspectives in Education*. 21:1, pp. 81-99.

Nuttal, D.L. (1994). Monitoring National Standards: United Kingdom. In: T. Husèn & T.N. Postlethwaite. (Eds) *The International Encyclopedia of Education*. Volume 7. Second Edition. Exeter: Pergamon. pp.3906-3912.

Rowntree, D. (2003). Supply title of article/chapter. In S. Mothata, L. Van Niekerk, & T. Mays, T. Learner:1, pp. 81-99.

South Africa. Department of Education. (2002a). *Revised National Curriculum Statement R – 9 (Schools)*. Pretoria: The Department.

South Africa. Department of Education. (2002b). *Qualifications and Assessment Policy Framework Grades 10 – 12 (Schools)*. Pretoria: The Department.

South Africa Government Gazette No. 18787 of 28 March 1998. *Regulations under the South African Qualifications Authority (Act No. 58 of 1995)*. No. R452. Pretoria: Government Printers.

SAQA. (2000). *The National Qualifications Framework and Curriculum Development*. Pretoria: SAQA.

SAQA. (2001). *Criteria and Guidelines for the Assessment of NQF registered Unit standards and Qualifications*. Pretoria: SAQA.

SAQA. (2003). *Regulations on Level Descriptors*. Pretoria: Government Printer.

SAQA and the Canadian International Development Agency. (2003). *The NQF and Assessment*. Pretoria: SAQA.

SAQA. (2004). *Criteria and Guidelines for the Implementation of the Recognition of Prior Learning*. Pretoria: SAQA.

SAQA. Registered qualifications: *Certificate: Tourism Management; National Certificate: Generic Project Management; National Certificate: Tourism Guiding; Bachelor of Commerce: Tourism Management*. Retrieved from www.saqa.org.za on 12 July 2004.

Scottish Qualifications Authority. (1997). *Guide to Assessment*. Glasgow: SCOTVEC.

University of South Africa. (2004). *General Tutorial Letter for the National Professional Diploma in Education*. Pretoria: UNISA.

Whitford, B.L. and Jones, K. (2001). in Hargreaves, A. *International Handbook of Educational change*.

APPENDIX A:
DESCRIPTIONS OF QUALIFICATIONS

All qualifications and unit standards registered on the NQF are public property. Thus the only payment that can be made for them is for service and reproduction. It is illegal to sell this material for profit. If the material is reproduced or quoted, SAQA should be acknowledged as the source.

(Note: Minor editorial changes have been made to the descriptions of the qualifications to improve readability)

Acronyms that appear in the description of qualifications:

Acronym	Description
ABET	Adult basic education and training
CHN	Christelijke Hogeschool van Noord-Nederland
ELOAC	Exit Level Outcomes and Assessment Criteria
ETDP SETA	Education Training and Development Practices Sector Education and Training Authority
ISETT	Information Systems Electronics & Telecommunication Technologies Sector Education Training Authority
IT	Information Technology
MBA	Masters of Business Administration
NVQ	National Vocational Qualifications (England, Wales and Northern Ireland)
Qual	Qualification
SAATP	South African Association of Tourism Professionals
SGB	Standards Generating Body
SMMEs	Small-; Medium-; Micro Enterprises
UK	United Kingdom
Unit Stds-Based	Unit standards-based

SOUTH AFRICAN QUALIFICATIONS AUTHORITY
REGISTERED QUALIFICATION:

National Certificate: Tourism: Guiding

SAQA QUAL ID	QUALIFICATION TITLE	
20155	National Certificate: Tourism: Guiding	
SGB NAME	**ABET BAND**	**PROVIDER NAME**
SGB Tourism Guiding	Undefined	
QUALIFICATION CODE	**QUAL TYPE**	**SUBFIELD**
SRV-4-National Certificate	National Certificate	Hospitality, Tourism, Travel, Gaming and Leisure
MINIMUM CREDITS	**NQF LEVEL**	**QUALIFICATION CLASS**
144	Level 4	Regular-Unit Stds Based
SAQA DECISION NUMBER	**REGISTRATION START DATE**	**REGISTRATION END DATE**
SAQA 1036/01	2001-06-13	2004-06-13

PURPOSE OF THE QUALIFICATION

In the context of the guiding sector, this qualification will enable the creation of innovative and exciting guided experiences. A qualifying learner will be able to contribute positively towards the guiding sector as a part of Southern Africa`s tourism industry.

A learner who has achieved this qualification will be capable of combining a range of lifelong learning skills and a knowledge of South African tourism issues, integrating these within a context to produce multi-skilled guiding practices.

In addition they will be positioned to further their learning, practice and career within the guiding sector - either at further levels or in other areas of practice. Expansion into other sectors of tourism is also possible.

LEARNING ASSUMED TO BE IN PLACE

It is assumed that learners wishing to enter a programme leading to this qualification have literacy, numeracy and communication equivalent to NQF level 3.

Recognition of prior learning:
This qualification may be achieved in part or in whole through the recognition of prior learning.

RECOGNISE PREVIOUS LEARNING?

Yes

EXIT LEVEL OUTCOMES

1. Conduct, reflect on and improve a guided experience within a specific area that entertains and educates tourists by interpreting cultural and natural environments.

2. Research, use and plan an itinerary themselves.
3. Present authentic, balanced interpretation of general aspects of South African society as well as specific sites and resources.
4. Apply procedures to protect the social and cultural integrity of the host communities.
5. Supply appropriate alternatives to problems and constraints, taking into account issues such as the constraints of the facilities, tourist expectations, and the requirements of the host community.
6. Apply a range of presentation techniques appropriate to the audience, context and client profile.
7. Monitor and improve their own performance based on critical reviews and evaluation of the event.
8. Reflect on what they have learnt about themselves.

ASSOCIATED ASSESSMENT CRITERIA

Integrated assessment:

Integrated assessment at the level of qualification provides an opportunity for learners to show that they are able to integrate concepts, ideas and actions across unit standards to achieve competence that is grounded and coherent in relation to the purpose of the qualification.

Integrated assessment must judge the quality of the observable performance, but also the quality of the thinking that lies behind it. Assessment tools must encourage learners to give an account of the thinking and decision-making that underpin their demonstrated performance. Some assessment practices will be of a more practical nature while others will be of a more theoretical nature. The ratio between action and interpretation is not fixed, but varies according to the type and level of qualification.

A broad range of task-orientated and theoretical assessment tools may be used, with the distinction between practical knowledge and disciplinary knowledge maintained so that each takes its rightful place.

The learner must demonstrate an ability to consider a range of options and make decisions about:

1. Selecting appropriate sites, and planning routes and activities for both general and special interest tourist groups.
2. Adapting their tour to meet the requirements of clients from diverse backgrounds and with diverse interests and abilities.
3. Finding ways of presenting the happy and the sad, the proud and the painful, the shared and the disputed in recognising that there are aspects of heritage that are painful.
4. Ways to remain sensitive to the requirements, interests and perspectives of culturally diverse tour groups and host communities.

The learner must demonstrate an understanding of:

1. The importance to strive for authenticity and avoid shallow stereotyping - especially in respect of living cultural experiences, such as township tours, theme parks, cultural villages etc, that are constructed as commodities for tourist consumption.

2. The fact that both cultural and natural heritage are not simply `things to be discovered`, but that they are constructed and given meaning by living communities as they continually develop new ways of seeing themselves and the world around them.
3. A set of professional ethics and code of conduct.
4. Different and changing perspectives and how to respect the dignity and integrity of people.
5. The characteristics, complexity, intricacies and diverse nature of the specific area and host community.
6. The importance of the tourism industry as a whole and guiding as part of that system.
7. The legal framework in which tourists and tourist guides operate.

The learner must demonstrate an ability to:

1. Assess client responses to their experiences and adapt and improve their tour to meet client needs.
2. Reflect on information gathered prior to a tour and determine its appropriateness.
3. Assess the success of a tour against expectations of a target client group, with regard to theme, duration, value for money, benefit to the community/ies, accommodation, activities and other services provided.
4. Evaluate own performance as part of a team, but mostly as the leader of the team.

INTERNATIONAL COMPARABILITY

International comparability

The standards for the guiding industry have been compared against the United Kingdom (UK) standards and show a substantial degree of similarity. This qualification is therefore comparable to the equivalent UK qualification. However, incorporating these unit standards into a tourism qualification, adds a specific South African angle to the qualification, which is an advantage as it enhances portability within the broader tourism industry.

MODERATION OPTIONS

Anyone assessing a learner against this qualification must be registered as an assessor with the relevant ETQA.

Any institution offering learning that will enable achievement of this qualification, or assessment against this qualification must be accredited as a provider with the relevant ETQA.

Moderation of assessment will be overseen by the relevant ETQA according to agreed ETQA procedures.

Therefore anyone wishing to be assessed against this qualification may apply to be assessed by any assessment agency, assessor or provider institution which is accredited by the relevant ETQA.

NOTES

13 credits must be accumulated from any unit standards from the field of Mathematical Literacy level 4.

UNIT STANDARDS:

	ID	UNIT STANDARD TITLE	LEVEL	CREDITS
Core	8493	Maintain occupational health and safety	Level 2	2
Core	8535	Acquire an overview of South Africa	Level 4	9
Core	8600	Care for Customers	Level 4	3
Core	8531	Conduct a guided experience with customers	Level 4	10
Core	8555	Contribute to information distribution regarding HIV/AIDS in the workplace	Level 4	4
Core	8490	Contribute to sustainable tourism in South Africa	Level 4	4
Core	8532	Design a guided experience for customers	Level 4	5
Core	8533	Interpret guiding for tourists	Level 4	5
Core	8553	Operate in a business	Level 4	4
Core	8479	Operate within the national and international legal framework	Level 4	5
Core	8551	Oversee arrival and departure of customers	Level 4	3
Core	8550	Weave South African heritage into tourism	Level 4	9
Fundamental	7547	Operate a personal computer system	Level 2	6
Fundamental	8618	Organise oneself in the workplace	Level 2	3
Fundamental	8591	Analyse and understand social issues	Level 4	4
Fundamental	12154	Apply comprehension skills to engage oral texts in a business environment	Level 4	5
Fundamental	12155	Apply comprehension skills to engage written texts in a business environment	Level 4	5
Fundamental	9015	Apply knowledge of statistics and probability to critically interrogate and effectively communicate findings on life related problems	Level 4	5
Fundamental	8558	Collate, understand and communicate workplace data	Level 4	5
Fundamental	7465	Collect and use data to establish complex statistical and probability models and solve related problems	Level 4	5
Fundamental	8570	Demonstrate an understanding of issues affecting people with special needs	Level 4	4
Fundamental	8612	Demonstrate an understanding of societal values and ethics	Level 4	4
Fundamental	7485	Demonstrate understanding of real and complex number systems	Level 4	3
Fundamental	7484	Describe, represent, analyse and explain changes in shape and motion in 2- and 3-dimensional space with justification	Level 4	4
Fundamental	7482	Find the derivatives and antiderivatives of a range of simple functions and		

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UNIT STANDARDS:

	ID	UNIT STANDARD TITLE	LEVEL	CREDITS
		apply these to problems involving curve sketching, areas under curves, maxima and minima and rates of change	Level 4	3
Fundamental	7481	Find the derivatives and integrals of a range of functions including the trigonometric functions and apply these to problems	Level 4	4
Fundamental	8561	Function in a Team	Level 4	4
Fundamental	8556	Interact orally and in writing in the workplace	Level 4	10
Fundamental	8559	Plan and conduct research	Level 4	6
Fundamental	9016	Represent analyse and calculate shape and motion in 2-and 3-dimensional space in different contexts	Level 4	4
Fundamental	7466	Represent and operate on complex numbers in non-trivial situations	Level 4	2
Fundamental	7483	Solve problems involving sequences and series in real and simulated situations	Level 4	2
Fundamental	7468	Use mathematics to investigate and monitor the financial aspects of personal, business, national and international issues	Level 4	2
Fundamental	7468	Use mathematics to investigate and monitor the financial aspects of personal, business, national and international issues	Level 4	2
Fundamental	12153	Use the writing process to compose texts required in the business environment	Level 4	5
Fundamental	7470	Work with a wide range of patterns and inverses of functions and solve related problems	Level 4	6
Elective	8440	Conduct a guided nature experience in a limited geographical area	Level 2	21
Elective	8456	Conduct a limited guided nature experience	Level 3	20
Elective	8511	Conduct a guided cultural experience	Level 4	20
Elective	8514	Conduct a guided nature experience	Level 4	20
Elective	8518	Track animals and identify spoor using moderately difficult spoor	Level 4	50
Elective	8458	Conduct an advanced guided nature experience	Level 6	20
Elective	8530	Track animals and identify spoor using difficult spoor	Level 6	60
Elective	8459	View potentially dangerous animals	Level 6	30

SOUTH AFRICAN QUALIFICATIONS AUTHORITY
REGISTERED QUALIFICATION:

Certificate: Tourism Management

SAQA QUAL ID	QUALIFICATION TITLE	
36030	Certificate: Tourism Management	
SGB NAME	**ABET BAND**	**PROVIDER NAME**
	Undefined	Graduate Academy Of South Africa
QUALIFICATION CODE	**QUAL TYPE**	**SUBFIELD**
SRV-5-National Certificate	National Certificate	Hospitality, Tourism, Travel, Gaming and Leisure
MINIMUM CREDITS	**NQF LEVEL**	**QUALIFICATION CLASS**
121	Level 5	Regular-Provider-ELOAC
SAQA DECISION NUMBER	**REGISTRATION START DATE**	**REGISTRATION END DATE**
SAQA 0249/03	2003-08-13	2006-08-13

PURPOSE OF THE QUALIFICATION

- To promote an understanding of the interrelated nature of the sectors in the tourism industry;
- To enhance learners` knowledge of legal and ethical principles applicable to the tourism industry, e.g. the impact of tourism;
- To develop management supervisory skills;
- To ensure improvement of management and customer service standards in the tourism industry; and
- To develop innovative thinking, leading to entrepreneurial skills, particularly to develop economic growth in developing regions in order to alleviate poverty through tourism SMMEs.

Rationale

With recent decline in tourism to western countries, Africa is gaining popularity among tourists. Due to the higher standard of living of a large part of the South African population, domestic tourism has also grown.

Tourism creates employment, generate income and alleviate poverty - this is the most important reason why a qualification like this is necessary. However, this Tourism Management qualification does not intend to train learners for the transport or travel agency sectors, but rather to train practitioners to ensure sustainability in the tourism industry.

LEARNING ASSUMED TO BE IN PLACE

Competency in communicating in English, verbally and non-verbally. Open access of learners with a FET Certificate (NQF level 4) or equivalent. There are no other learning or experience pre-requisites

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Recognition of prior learning
In the case of appropriate prior learning or experience, learners can apply to be assessed in up to 40% of complete outcomes. Learners will have to proof competence in the outcomes indicated by them. The assessment of these learners will also be externally moderated to ensure academic quality and credibility.

RECOGNISE PREVIOUS LEARNING?
Yes

EXIT LEVEL OUTCOMES
1. Demonstrate verbal and non-verbal communication skills for service excellence.
2. Use technology efficiently.
3. Manage time and resources efficiently.
4. Apply basic entrepreneurial skills.
5. Apply basic knowledge and skills to efficiently manage a business.
6. Implement and produce proper financial management accounts.
7. Demonstrate an understanding of the dynamics of the interrelated sectors of the tourism industry.
8. Demonstrate basic knowledge of legal and ethical principles pertaining to the tourism industry.
9. Demonstrate an understanding of the potential positive and negative physical/ environmental, economical and social/community consequences of tourism.

Critical Outcome
Problem solving relates to the following outcomes: 2, 3, 4, 5, 7, 9.
Team work relates to the following outcomes: 3, 5, 9.
Self organisation and -management relates to the following outcomes: 3, 4, 5, 6, 9.
Information evaluation relates to the following outcomes: 1, 4, 6, 8.
Communication relates to the following outcomes: 1, 2, 4, 5, 6.
Use of science and technology relates to the following outcomes: 2, 6.
Inter-related systems relates to the following outcomes: 3, 4, 5, 6, 7, 8, 9.
Learner and societal development relates to the following outcomes: 1, 4, 8, 9.

ASSOCIATED ASSESSMENT CRITERIA
1.1 Read to interpret and write to produce common formats of written communication
1.2 Listen to interpret and speak to produce common formats of oral communication
1.3 Interpret and produce common formats of non-verbal communication

2.1 Use computer software to produce verbal and non-verbal communication.
2.2 Access information through the Internet
2.3 Access and use e-mail
2.4 Operate technological aids used for office administration and communication.

3.1 Tourism activity is correctly planned
3.2 Organisation of time and resources is outlined

3.3 Control measures are indicated
3.4 Supervising skills are correctly applied
3.5 Apply the basic management functions in a small tourism activity

4.1 Research feasibility of a business idea
4.2 Do basic market research
4.3 Produce a basic business plan

5.1 Demonstrate knowledge of basic economic principles and policies
5.2 Assist in the organisation of management functions

6.1 Compile and process accounting data of a going concern
6.2 Financial transactions are correctly recorded in a general ledger
6.3 A trail balance is correctly drawn up
6.4 Account for assets and liabilities
6.5 Compile company annual financial reports

7.1 Describe the composition of the tourism industry
7.2 Describe the different sectors of the tourism industry
7.3 Describe the roles and inter-relationship between the tourism sectors
7.4 Identify trends in the tourism industry

8.1 Know and understand the meaning and impact of the Tourism White Paper (1996) on the tourism industry
8.2 Demonstrate knowledge of the ethics of the tourism industry, e.g. responsible tourism
8.3 Apply the principles of sustainable tourism

9.1 Explain the physical/environmental impact of tourism
9.2 Describe managerial/environmental strategies to protect the physical environment
9.3 Explain the economical impact of tourism
9.4 Describe strategies to enhance the economic impact
9.5 Explain the social impact of tourism on the local community
9.6 Interpret statistics and information about regional, national and international tourism trends

Integrated assessment
The assessment methods are unique to the different outcomes. Theory tests focus on the knowledge of learners, while the practical assignments focus on the demonstration of skills. Therefore, the two assessment methods cannot be separated as the one complements the other in ensuring that the purpose of the qualification was achieved.

Theory and practice are integrated in the following ways:
Theory: Tests and an externally moderated final examination.
Practice: Projects and assignments, case studies, portfolios containing proof of learning progress.

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INTERNATIONAL COMPARABILITY

This qualification is on par with similar international qualifications. However, it is focused on the South African tourism industry, legislation and the need to develop entrepreneurship.

The qualification is in line with the educational objectives of the South African Association of Tourism Professionals (SAATP).

The Graduate Academy of South Africa has consulted the Leisure Management qualifications offered by the Christelijke Hogeschool van Noord-Nederland (CHN), a leader in the training of Leisure, Hospitality and Tourism.

The CHN (Leeuwarden, Friesland) is also a pioneer in the application of practical education strategies such as Problem based Learning applied by the Graduate Academy of South Africa.

ARTICULATION OPTIONS

Vertical articulation: The completion of this national certificate provides vertical access to the Diploma in Tourism Management.

Horizontal articulation: The completion of this national certificate provides horizontal access to other qualifications in commerce offered by the institution, namely Diploma in Marketing Management and Diploma in Public Relations Management
The horizontal articulation is subject to the completion of outstanding electives. This will be assessed on an individual basis after consultation with the learner.

MODERATION OPTIONS

Recommendation of a moderation body or bodies

Moderation includes both internal and external moderation.

All assignments and tests are internally moderated.

Appointed public higher education institution, professional association or industry representative does external moderation. All industry-based projects, portfolios and final examination are moderated externally.

CRITERIA FOR THE REGISTRATION OF ASSESSORS

Appointment of external moderators is subject to the approval of the institution`s Academic Board.

Assessors have to meet any three of the following criteria:

- Assessors have to have 5 (five) years industry experience;
- Assessors have to prove that credible and appropriate academic qualifications have been met;
- Assessors have to have a credible MBA or appropriate Doctorate degree;
- Assessors have to be a member of an appropriate professional body e.g. SAATP; and

- Assessors have to be in appropriate employment of a South African public higher education institution.

UNIT STANDARDS:
This qualification is not based on unit standards.

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SOUTH AFRICAN QUALIFICATIONS AUTHORITY
REGISTERED QUALIFICATION:

Bachelor of Commerce: Tourism Management

SAQA QUAL ID	QUALIFICATION TITLE	
7113	Bachelor of Commerce: Tourism Management	
SGB NAME	ABET BAND	PROVIDER NAME
	Undefined	University of Pretoria
QUALIFICATION CODE	QUAL TYPE	SUBFIELD
SRV-6-National First Degree	National First Degree	Hospitality, Tourism, Travel, Gaming and Leisure
MINIMUM CREDITS	NQF LEVEL	QUALIFICATION CLASS
426	Level 6	Regular-Provider-ELOAC
SAQA DECISION NUMBER	REGISTRATION START DATE	REGISTRATION END DATE
SAQA 3133/00	2003-07-01	2006-06-30

PURPOSE OF THE QUALIFICATION

The overall purpose of this qualification is to develop future managers and entrepreneurs in the tourism sphere that:

- have a sound background in the economic and business sciences
- think and act within a strategic and systems framework
- have an in-depth knowledge of the operational and management aspects of the key components of tourism
- have had practical and industry exposure to the key facets of tourism

The B Com programme in Tourism Management has the following key focuses, namely:

- To equip learners with a sound strategic foundation that is essential to function effectively in an operational and managerial capacity in the dynamically changing socio-economic environment. To provide learners with a holistic and integrated understanding of the tourism system and the key components of tourism
- To equip learners with the necessary approaches and operational/management tools and techniques to enable them to operate and manage tourism enterprises in the key sectors of the tourism industry
- To provide learners with appropriate practical experience and industry exposure to complement the academic focus and thereby to provide them with a competitive advantage when embarking on a career in tourism industry

LEARNING ASSUMED TO BE IN PLACE

Matriculation certificate

Other:

The student is required to obtain a M-score of 12 as well as a D symbol for standard grade or an E symbol for higher grade mathematics.

RECOGNISE PREVIOUS LEARNING?

No

EXIT LEVEL OUTCOMES

B Com (Tourism Management)

Learning outcomes:

After completion of the B Com (Tourism Management) programme the graduate will have the competence to operate and/or manage any of the key functional areas of a tourism business and be in position to become an entrepreneur in the tourism sphere

Critical cross-field outcomes:

After completing the programme the graduates will be able to:

1. Identify and solve problems and make strategic and operational decisions using critical and creative thinking in the field tourism management.
2. Work effectively with co-workers as members of a team, group organisation and clients and community stakeholders.
3. Organise and manage themselves and their activities responsibly and effectively within the norms and standards of the relevant industry.
4. Collect, analyse, organise and critically evaluate and utilise relevant information for planning and decision making.
5. Communicate effectively within an organisation as well as with external stakeholders using relevant visual, symbolic, and/or language skills.
6. Use relevant technology effectively in operating and managing a tourism business.
7. Demonstrate a commitment to operate in a socially responsible and environmentally sustainable way.
8. Demonstrate an understanding of the tourism system and the inter-relationship and interdependency of its components.

The programme provides theoretical, practical and industry interactive learning opportunities which include:

- The development of a variety of strategies to learn more effectively
- Participating as a responsible citizen in the life of particularly local and regional communities and being culturally and aesthetically sensitive across a range of contexts
- Exploring local and global education and career opportunities
- Identifying and developing entrepreneurial opportunities in the tourism sector

APPENDIX A

ASSOCIATED ASSESSMENT CRITERIA

The student must demonstrate his/her proficiency to:

- deal effectively with the operational and managerial functions and strategic issues in the key sectors of the tourism industry
- conduct a feasibility study, develop and implement a strategic an d business plan for a tourism enterprise.

All other listed critical outcomes (NSB Regulations, 1998: 8) will be addressed in the learning programme

Integrated assessment:
Portfolios
Simulations and case studies
Work-place assessments
Written examinations
Oral examinations/evaluations
Other:
The successful completion of industry recognised practical short courses as an integral part of the programme, e.g. Galileo and Fidelio

ARTICULATION OPTIONS

Related qualifications:
B Com (Hons) Tourism Management

B Com (Hons) Tourism Management serves as an entry point to the related qualification

MODERATION OPTIONS

External assessors are involved for each of the learning fields. These assessors should meet the same requirements than those stated for assessors mentioned in Assessors criteria

CRITERIA FOR THE REGISTRATION OF ASSESSORS

Qualifications required:
At least an honours degree in tourism management or in the relevant learning field for which the assessor is appointed or selected.
Career experience required:
At least 3 years management experience in the tourism or related industries

UNIT STANDARDS:

This qualification is not based on unit standards.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY
REGISTERED QUALIFICATION:

National Certificate: Information Technology: Systems Development

SAQA QUAL ID	QUALIFICATION TITLE	
24294	National Certificate: Information Technology: Systems Development	
SGB NAME	**ABET BAND**	**PROVIDER NAME**
SGB Information Systems and Technology	Undefined	
QUALIFICATION CODE	**QUAL TYPE**	**SUBFIELD**
PHY-4-National Certificate	National Certificate	Information Technology and Computer Sciences
MINIMUM CREDITS	**NQF LEVEL**	**QUALIFICATION CLASS**
178	Level 4	Regular-Unit Stds Based
SAQA DECISION NUMBER	**REGISTRATION START DATE**	**REGISTRATION END DATE**
SAQA 2352/04	2004-02-11	2007-02-11

PURPOSE OF THE QUALIFICATION

The purpose of this qualification is to build a foundational entry into the field of Computer Sciences and Information Technology, specifically into the field of Systems Development, covering basic knowledge needed for further study in the field of Systems Development at Higher Education Levels.

The qualification can be acquired in the traditional way of formal study as well as in the workplace, through learnerships. Acquiring the qualification through learnerships has the potential of addressing the problems of the past, where newly qualified people getting into the industry struggled to get employment, because they were required to have practical experience. The workplace experience can now be gained while acquiring the qualification through the various learnership schemes that are planning to use this qualification.

A qualifying learner at this level will be a well-rounded entry-level Systems Developer with a good fundamental knowledge of the Information Technology field, coupled with interpersonal and business skills, preparing for later specialisation in Systems Development fields.

The qualification is designed to:

- provide learners with an entry level for further study in Information Technology and related fields, as well as for initial employment in the computer industry.
- allow many of the listed unit standards to be used in Learnership Schemes in the Information Systems and Technology sector, as well as other sectors where Information Technology is a key requirement.
- provide a foundational qualification for people who are pursuing a career in the computer

industry, or related fields. People with this qualification have an introductory level of understanding about computer industry concepts and/or are able to work in areas of Information Technology with little technical complexity, for example entry-level computer programming, as junior project team member.

- allow the credits achieved in the National Certificates in Information Technology (level 2 and 3) to be used as foundation (i.e. learning assumed to be in place) for the requirements of this qualification.
- have a flexible structure to allow for changing requirements in the computer industry, and to allow providers to create learning programmes with a predominantly Information Technology component but tailored to meet local, national or international needs.

Rationale of the qualification:
This qualification has been formulated such that it reflects the workplace-based needs of the Information Technology Industry as expressed by its stakeholders.
The input has been used to ensure that the qualification provides the learner with accessibility to be employed within the IT Industry.

The introduction of national qualifications in Information Technology based on unit standards will allow learners to qualify for a national qualification by accumulating the required credits via short learning programmes or workplace practical experience or both. It also allows learners to achieve the qualifications through recognition of prior learning and/or learnerships schemes, overcoming past barriers in the methods of achieving formal qualifications.

Academically this National Certificate is intended to be an entry-level qualification in the area of Systems Development. The qualification builds on knowledge areas covered in National Certificates and short learning programmes at NQF level 2 to 4, and it facilitates entry into the Systems Development field. It aims to enhance readiness for further study in Information Technology and related fields at the Further Education level, provides a pathway into further study at Higher Education level, as well as providing for initial employment in the computer industry.

One of the most important needs for this qualification is to provide for the recognition of prior learning. There are currently no unit standard-based registered qualifications for Software Development. However, programmes are written, installed, maintained and upgraded on a daily basis in a number of different industry sectors. People with workplace experience in the areas covered by this qualification will now be allowed to request assessment and get recognition for prior learning.

The qualification provides the learner with the flexibility to articulate in the Telecommunications, Information Technology and Electronic Industries and other industries where IT is a key component, like the Financial Services Industry.

LEARNING ASSUMED TO BE IN PLACE

It is assumed that the learner is competent in skills gained at the further education and

training band, with exposure to computing as an advantage, but not a requirement. A learning assumption of this qualification is foundational skills in English and Mathematics at NQF level 3. Further learning assumed is the ability to use a personal computer competently, and competence in the unit standard, "Participate in formal meetings", NQF level 2 (ID 14911).

The assumed learning can be acquired in the traditional way of formal study as well as in the workplace. Acquiring the competencies in a workplace (either via formal learnerships or normal on-the-job training) has the potential of addressing the problems of the past, where formal qualifications were only obtainable by way of formal study.

Recognition of prior learning:
Many of the competencies used in the Information Technology profession have traditionally been acquired through short courses and on-the-job training, which did not provide formal recognition of the knowledge and skills acquired. These competencies are still today viewed by most industries as invaluable, with the sad reality that there is no formal recognition. The nature of the Information Technology field means that competence is developed experientially, therefore the assessment processes should recognise experience versus theoretical knowledge. Recognition of prior learning will now allow people with these valuable competencies to be assessed and recognised formally.

Any learner wishing to be assessed may arrange to do so without having to attend further education or training. For recognition of prior learning the learner will be required to submit a portfolio of evidence of relevant experience, in a prescribed format, to be assessed for formal recognition. The assessor and learner will decide jointly on the most appropriate assessment procedures, subject to the assessment rules of the relevant ETQA. Learning assumed to be in place must be assessed by the assessor prior to any assessment relating to this qualification.

RECOGNISE PREVIOUS LEARNING?
Yes

QUALIFICATION RULES
Learners undertaking this Qualification will be required to do all 86 Fundamental credits and all 56 Core credits. For the achievement of the minimum 178 credits required, they will be required to do at least 36 credits in the elective component.

EXIT LEVEL OUTCOMES
A learner will be able to:
1. Communicate effectively with fellow IT staff and users of information systems.
2. Demonstrate an understanding of different types of computer systems and the use of computer technology in business.
3. Demonstrate an understanding of problem solving techniques, and how to apply them in a technical environment.
4. Demonstrate an understanding of Computer Technology Principles.

5. Demonstrate an understanding of Computer Programming Principles.
6. Work effectively as a team member within a development project environment.
7. Carry out, under supervision, a small size task to demonstrate an understanding of the knowledge, techniques and skills needed to understand the fundamentals of Computer Programming.

ASSOCIATED ASSESSMENT CRITERIA

In particular, assessors should check that the learner is able to demonstrate an ability to consider a range of options and make decisions, meeting the following criteria:

1. Effective Communication is demonstrated with fellow IT staff and with users of information systems, in the form of written and verbal communication.
2. An understanding of different types of computer systems and the use of computer technology in business is demonstrated, being able to describe the different computers systems and associated hardware and network configurations and investigate (sometimes under supervision) its use within organisations.
3. The ability to identify different problem solving techniques, and when and how to apply them, is demonstrated.
4. A fundamental understanding of Computer Technology Principles are demonstrated by explaining computer architecture, networking and operating systems concepts, as well as different data storage methods.
5. An understanding of Computer Programming Principles is demonstrated by producing program segments explaining various programming principles.
6. Working effectively as a team member within a development project environment, taking part in team activities and understanding different roles within different support teams.
7. Knowledge of the techniques and skills needed to understand fundamental programming principles are demonstrated by creating a computer program that combines the assessed outcomes in fundamental programming.

Integrated Assessment:

Development of the competencies may be through a combination of formal and informal learning, self-learning, training programmes and work-based application.

The practical, applied, foundational and reflective competencies demonstrated for the group of assessment criteria in this qualification, must prove that the whole competence is more than the sum of the parts of the competencies.

Providers should conduct diagnostic and formative assessment. Formative, continuous and diagnostic assessments should also take place in the work place, if applicable. The learner should also be able to assess him or herself and determine readiness for a summative assessment against this qualification.

During integrated assessments the assessor should make use of formative and summative assessment methods and should assess combinations of practical, applied, foundational and reflective competencies. Input to completing the Integrated Assessment typically make use of combinations of the following assessment methods:

1.Time-constrained written examinations

2. Coursework Evaluations
3. Continuous Evaluation
4. Practical Evaluation.

INTERNATIONAL COMPARABILITY

The concept of qualifications based on unit standards is not unique to South Africa. This qualification and unit standards have been evaluated against, and are comparable to core knowledge and specialised knowledge elements found in the following International Qualifications Frameworks:

- New Zealand NQF,
- Australian NQF,
- British NVQs.

Furthermore input to the development of the qualification has been benchmarked against the following International sources, where the outcomes and assessment criteria, degree of difficulty and notional learning time has been compared:

- City and Guilds Certificate and Diploma for Programmers (refer 7261 IT Scheme administered by ISETT),
- NCC Education`s International Certificate and Diploma in Computer Studies for IT Professionals,
- Microsoft MCSD certification
- E-Skills

This qualification combines the NQF principles and requirements, with Internationally accepted Knowledge Areas required in a System Development Qualification.

ARTICULATION OPTIONS

This qualification has been developed for professional practice across the industry and is intended to ensure professionalism within junior positions in the industry ensuring the upliftment of the standards in general. It is applicable to small and large businesses alike, and builds on other certificates from a range of sub-sectors and will provide articulation with a range of qualifications.

Upon successful completion of the qualification, the learner will be a Systems Developer able to carry out competently the exit level outcomes in a business environment. The purpose of this qualification is stated as being a foundational qualification at the Further Education band, allowing for further study in Information Technology and related fields at Higher Education entry level (National Certificate). This will allow the qualified learner to progress to further qualifications either in Systems Development or other IT domains, or in other related industries where IT is a key component.

In particular, this qualification has been designed to allow entry into either the National Certificates in Systems Support at NQF level 5 or the National Certificate in Systems Development at NQF level 5, but can also be used as foundational to other IT qualifications that will be defined in future.

APPENDIX A

MODERATION OPTIONS

- Anyone assessing a learner or moderating the assessment of a learner against this Qualification must be registered as an assessor or moderator with the relevant ETQA.
- Any institution offering learning that will enable the achievement of this Qualification must be accredited as a provider with the relevant ETQA.
- Assessment and moderation of assessment will be overseen by the relevant ETQA according to the ETQA`s policies and guidelines for assessment and moderation.
- Moderation must include both internal and external moderation of assessments at exit points of the qualification, unless ETQA policies specify otherwise.
- Moderation should also encompass achievement of the competence described both in individual unit standards as well as the integrated competence described in the qualification.
- Anyone wishing to be assessed against this Qualification may apply to be assessed by any assessment agency, assessor or provider institution that is accredited for assessment by the relevant ETQA.

To ensure that national standards are maintained, the final assessment should be conducted on the following basis, which will be under the control of the relevant ETQAs (ISETT SETA or other relevant ETQAs):

- National assessment of written papers and/or practical assignments needs to be undertaken, by the relevant ETQA. This must include the necessary assessment tools (e.g. marking schemes) to ensure consistent assessment. This function can be performed by the ETQA itself or a nominated body or bodies.
- Assessment can be institutional or workplace based and must be done by a registered assessor.
- External moderation will be undertaken as required, to ensure that the quality of NQF standards is maintained nationally.

CRITERIA FOR THE REGISTRATION OF ASSESSORS

The criteria to register as an assessor include the following:

- Assessors should be registered as assessors with the relevant ETQA, in accordance with the policies and procedures defined by the ETQA.
- Have a relevant academic qualification or equivalent recognition, at a level higher than the qualification being assessed.
- All registered assessors must have met the requirements of the generic assessor standard, and should be certificated by the ETDP SETA or by the relevant ETQA in agreement with the ETDP SETA in this regard.

NOTES

Knowledge Areas covered by the qualification

This qualification addresses the following knowledge areas being developed for the IT qualifications framework, inter alia:

- Competence in creating program segments with no supervision or complete programs with limited supervision and direction from others

- Contributing to solving user application problems and meeting their support needs
- Investigating customer requirements and creating program designs
- Apply problem solving techniques to given customer requirements in creating program designs
- Analysing data and contributing to system testing, over a variety of application areas
- Understand the structure of a typical systems development project team, knowing the different roles and knowing when to ask for assistance in performing the above tasks.

Level Description of the qualification
The above knowledge areas listed display competences that are complex and non-routine, which are appropriate at this level. They involve the application of knowledge and skills in a limited range of varied work activities, performed in a wide variety of contexts. Some level of responsibility and autonomy is allowed, where control or guidance of others is often required, although complete responsibility is assumed for the quantity and quality of the individuals own outputs. Collaboration with others, perhaps through membership of a work group or team, may often be a requirement.

This also supports the SAQA approved level descriptors at this level, as listed below:
Foundational Competence
- Possession of wide-ranging scholastic/technical skills.
- Possession of a broad knowledge base incorporating some theoretical concepts.
- Demonstrate the ability to access, analyse and evaluate information independently.
- Employ a range of responses to well defined but often unfamiliar or unpredictable problems.

Practical Competence
- Operate in a variety of familiar and unfamiliar contexts under broad guidance and evaluation.
- Select from a considerable choice of procedures.
- Give presentations to an audience.

Reflexive Competence
- Complete responsibility for quantity and quality of output.
- Possible responsibility for the quantity and quality of output of others.

Foundational Competence: Progression is manifested by the change from routine responses at level 3 to generation of responses at level 4.
Practical Competence: There is evidence of progression in terms of the range of skills, choice of actions and the ability to present information to others.
Reflexive Competence: Progression is marked by a significant increase in responsibility for individual outputs and the need to interact with others. At level 4, the learner can assume leadership roles of a limited nature.

Qualification Naming and Specialisation Description:
The Information Technology sub-field has been broken into various domains, of which

Systems Development is one. Qualification names will be linked to these domains, with specialisation descriptions attached to the qualification certification document being produced. The reason for this is firstly to reduce the number of qualifications needed to be registered to a manageable level, and secondly to have the qualification linked to the typical structure of the Information Technology industry. Finally we want to have the qualification certification document to reflect fields of specialisation, for unit standards that has been achieved within listed fields of specialisation. These specialisation fields are defined as part of the elective unit standards for the qualification, which will allow flexibility in future to add new specialisation fields without having to redefine the whole qualification. This is very important to the IT industry which is a very dynamic and fast changing industry.

UNIT STANDARDS:				
	ID	**UNIT STANDARD TITLE**	**LEVEL**	**CREDITS**
Core	14918	Describe the principles of Computer Programming	Level 3	5
Core	14913	Explain the principles of computer networks	Level 3	5
Core	14910	Apply the principles of Computer Programming	Level 4	8
Core	14933	Demonstrate an understanding of creating multimedia/web-based computer applications with scripting	Level 4	6
Core	14924	Demonstrate an understanding of information systems analysis	Level 4	3
Core	14930	Demonstrate an understanding of the principles of developing software for the internet	Level 4	3
Core	14909	Describe the difference between programming in Object Orientated and Procedural Languages	Level 4	4
Core	14915	Design a computer program according to given specifications	Level 4	8
Core	14917	Explain computer architecture concepts	Level 4	7
Core	14944	Explain how data is stored on computers	Level 4	7
Fundamental	9302	Access information in order to respond to client enquiries in a financial services environment	Level 3	2
Fundamental	8968	Accommodate audience and context needs in oral communication	Level 3	5
Fundamental	9303	Communicate verbally with clients in a financial environment	Level 3	3
Fundamental	8969	Interpret and use information from texts	Level 3	5
Fundamental	8970	Write texts for a range of communicative contexts	Level 3	5
Fundamental	12154	Apply comprehension skills to engage		

UNIT STANDARDS:				
	ID	UNIT STANDARD TITLE	LEVEL	CREDITS
		oral texts in a business environment	Level 4	5
Fundamental	12155	Apply comprehension skills to engage written texts in a business environment	Level 4	5
Fundamental	9015	Apply knowledge of statistics and probability to critically interrogate and effectively communicate findings on life related problems	Level 4	5
Fundamental	14927	Apply problem solving strategies	Level 4	4
Fundamental	8974	Engage in sustained oral communication and evaluate spoken texts	Level 4	5
Fundamental	14920	Participate in groups and/or teams to recommend solutions to problems	Level 4	3
Fundamental	8975	Read analyse and respond to a variety of texts	Level 4	5
Fundamental	9016	Represent analyse and calculate shape and motion in 2-and 3-dimensional space in different contexts	Level 4	4
Fundamental	8979	Use language and communication in occupational learning programmes	Level 4	5
Fundamental	7468	Use mathematics to investigate and monitor the financial aspects of personal, business, national and international issues	Level 4	2
Fundamental	8976	Write for a wide range of contexts	Level 4	5
Elective	114636	Demonstrate an understanding of preventative maintenance, environmental and safety issues in a computer environment	Level 3	6
Elective	14912	Investigate the use of computer technology in an organisation	Level 3	6
Elective	10313	Comply with service levels as set out in a Contact Centre Operation	Level 4	10
Elective	14908	Demonstrate an understanding of testing IT systems against given specifications	Level 4	6
Elective	14926	Describe information systems departments in business organisations	Level 4	3
Elective	14921	Describe the types of computer systems and associated hardware configurations	Level 4	6
Elective	10025	Handle a range of customer complaints	Level 4	4
Elective	14919	Resolve computer user's problems	Level 4	5
Elective	10135	Work as a project team member	Level 4	8

APPENDIX A

SOUTH AFRICAN QUALIFICATIONS AUTHORITY
REGISTERED QUALIFICATION:

National Certificate: Generic Project Management

SAQA QUAL ID	QUALIFICATION TITLE	
21160	National Certificate: Generic Project Management	
SGB NAME	**ABET BAND**	**PROVIDER NAME**
SGB Project Management	Undefined	
QUALIFICATION CODE	**QUAL TYPE**	**SUBFIELD**
BUS-4-National Certificate	National Certificate	Project Management
MINIMUM CREDITS	**NQF LEVEL**	**QUALIFICATION CLASS**
146	Level 4	Regular-Unit Stds Based
SAQA DECISION NUMBER	**REGISTRATION START DATE**	**REGISTRATION END DATE**
SAQA 0641/02	2002-04-10	2005-04-10

PURPOSE OF THE QUALIFICATION

The primary purpose of the qualification is to provide learners with:

- A foundation of basic project management skills which can be used to build further project management related competencies
- Competence to be an effective project team member
- Competence to execute small, simple projects
- Competence to provide assistance to a project manager of large projects

Project level will include working as a leader in the context of a small project / sub-project involving few resources and having a limited impact on stakeholders and the environment or working as a contributing team member on a medium to large project when not a leader.

Rationale for the qualification:
This qualification reflects the needs of the project management sector, both now and in the future, for a general (not sector specific) skills pool.
This qualification is intended for a Project level that will include working as a leader in the context of a small project / sub-project involving few resources and having a limited impact on stakeholders and the environment or working as a contributing team member on a medium to large project when not a leader. Once having gained this competence they may continue into further project management competence and complexity or into management within an organisation or of their own organisation.

This qualification is intended for those with prior work experience or the NQF level 3 qualification in project management or an equivalent. The learners accessing this standard will be working in or with project management teams or using a project approach. These projects may be technical projects, business projects or developmental projects and will cut across a range of economic sectors. This standard will also add value to learners who are running their own business and recognise that project management forms an integral

component of any business.

The prospective candidate for this qualification may be a person who is entering the work place or has been working in the workplace and has limited formal project management training / competence. Such a person may be working part time or full time with projects. They may be a team member or in a specialised support role such as Project Secretary, Project Administrator, procurement or cost support, planner - estimator support. For the specialist roles there will be a growth in competence gained with experience.

The learners may be from any sector, working in formal business, government, in the community or in rural areas. They may be working as supervisors of small projects or teams on a project, or they may be team members, providing administrative support or specialised procedure support such as procurement.

The qualification gives accessibility and flexibility to the learner and to the employed. The level of flexibility reflects the multiple job roles, organisational requirements and changing technological nature of the industry and at the same time it allows the individual to work towards a nationally recognised qualification.

LEARNING ASSUMED TO BE IN PLACE

Learners accessing this qualification will have demonstrated competence against standards in project management practices or equivalent of NQF level 3.

Recognition of prior learning:
Historically project management has been an `accidental` profession. A large number of practitioners have experience but no formal underpinning knowledge. It is therefore essential to recognise prior learning and the application in the work place. The nature of project management means that competence is developed experientially, therefore the assessment processes will recognise experience versus theoretical knowledge. Portfolios of evidence will be important contributions to the assessment process.

RECOGNISE PREVIOUS LEARNING?

Yes

EXIT LEVEL OUTCOMES

On achieving this qualification a learner will be able to:

- Contribute and provide assistance to a project`s scope, life cycle activities and the effective execution of the project plan by applying the correct range of project management tools and ensuring project work is carried out according to plan.
- Support the implementation of the project plan in response to outcomes evaluated and assessed and provide related inputs to keep the project on track.
- Perform administrative duties related to the project and documentation requirements and administer project meetings and workshops.
- Contribute to project financial management issues related to cost budgets for an element of work.

- Work with and support team project members working on the designated project.
- Perform procurement duties related to the project undertaken.
- Supervise a project team and implement a range of procedures and systems related to one of the following types of projects; developmental, technical or business.

Unit standards will be utilised to provide depth of specification of the outcomes, ranges and the assessment criteria and processes.

ASSOCIATED ASSESSMENT CRITERIA

Integrated Assessment:
Development of the competencies may be through a combination of informal and formal learning, self-learning, training programmes and work-based application. Providers should conduct diagnostic and formative assessment. Formative, continuous and diagnostic assessments should also take place in the work place. The learner should be able to assess him or herself and determine readiness for a summative assessment against this qualification.

INTERNATIONAL COMPARABILITY

Project Management is a discipline with globally recognised best practices and qualifications. This qualification and set of unit standards utilises international and local recognised best practice and standards in project management. The UK level NVQ 3 in Project Management has been referred to in development of the qualification.

This qualification will provide an entry point to further learning for NQF level 5 and above qualifications and international qualifications, which are at that higher level.

International institutions that have been referenced include:

- Project Management Institute (Global)
- Association for Project Management (UK)
- International Project Management Association (Europe)
- Australian Institute for Project Management (Australia)

MODERATION OPTIONS

The summative assessment will be directed through an ETQA. Professional Institutes, locally and internationally can also act as independent referees. Local institutes include PMISA and CEASA. Both have been active in the development of standards and qualifications and have strong working relations with the leading international project management institutes.

NOTES

Total credits for qualification without second language: 146
Total credits for qualification with second language: 166

UNIT STANDARDS:				
	ID	UNIT STANDARD TITLE	LEVEL	CREDITS
Core	10150	Provide assistance in implementing and assuring project work is conducted in accordance with the project quality plan	Level 3	6
Core	10140	Apply a range of project management tools	Level 4	8
Core	10137	Conduct project documentation management to support project processes	Level 4	6
Core	13835	Contribute to project initiation, scope definition and scope change control	Level 4	9
Core	10141	Contribute to the management of project risk within own field of expertise	Level 4	5
Core	10142	Fulfill procurement activities and supervise procurement administration	Level 4	8
Core	10131	Identify, organise and co-ordinate project life cycle phases for control purposes	Level 4	5
Core	10144	Identify, suggest and implement corrective actions to improve quality	Level 4	6
Core	10139	Implement project administration processes according to requirements	Level 4	5
Core	10143	Monitor, evaluate and communicate project schedules	Level 4	4
Core	10134	Participate in the estimation and preparation of cost budgets for an element of work and monitor and control actual cost against budget	Level 4	6
Core	10136	Plan, organise and support project meetings and workshops	Level 4	4
Core	10133	Schedule project activities to facilitate effective project execution	Level 4	8
Core	10135	Work as a project team member	Level 4	8
Core	14214	Evaluate and improve the project team`s performance	Level 5	8
Fundamental	8968	Accommodate audience and context needs in oral communication	Level 3	5
Fundamental	8969	Interpret and use information from texts	Level 3	5
Fundamental	8973	Use language and communication in occupational learning programmes	Level 3	5
Fundamental	8970	Write texts for a range of communicative contexts	Level 3	5
Fundamental	9015	Apply knowledge of statistics and probability to critically interrogate and effectively communicate findings on life related problems	Level 4	5

APPENDIX

A

UNIT STANDARDS:				
	ID	**UNIT STANDARD TITLE**	**LEVEL**	**CREDITS**
Fundamental	8974	Engage in sustained oral communication and evaluate spoken texts	Level 4	5
Fundamental	12417	Measure, estimate & calculate physical quantities & explore, critique & prove geometrical relationships in 2 and 3 dimensional space in the life and workplace of adult with increasing responsibilities	Level 4	4
Fundamental	8975	Read analyse and respond to a variety of texts	Level 4	5
Fundamental	8979	Use language and communication in occupational learning programmes	Level 4	5
Fundamental	7468	Use mathematics to investigate and monitor the financial aspects of personal, business, national and international issues	Level 4	2
Fundamental	8976	Write for a wide range of contexts	Level 4	5
Elective	10148	Supervise a project team of a business project to deliver project objectives	Level 5	14
Elective	10146	Supervise a project team of a developmental project to deliver project objectives	Level 5	14
Elective	10147	Supervise a project team of a technical project to deliver project objectives	Level 5	14
Elective	10149	Support the project environment and activities to deliver project objectives	Level 5	14

APPENDIX B:

Level descriptors NQF level 1 - 4

STAATSKOERANT, 26 SEPTEMBER 2003 • No. 25501

GOVERNMENT NOTICE

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

No. 1348 **26 September 2003**

The South African Qualifications Authority has, under section 14 of the South African Qualifications Authority Act, 1995 (No. 58 of 1995), with the approval of the Minister of Education and in consultation with the Minister of Labour, made the regulations in the Schedule.

SCHEDULE

Definitions

1. In these regulations any word or expression to which a meaning has been assigned in the Act shall have such meaning and, unless the context indicates otherwise -

"applied competence" means the ability to put into practice in the relevant context the learning outcomes required in obtaining a qualification;

"autonomy of learning" means the capacity of a learner for lifelong learning and includes the extent to which a learner can undertake action for learning independently, the extent to which a learner takes responsibility for his or her own learning and the extent to which a learner is self-reflexive about and can evaluate the quality of his or her learning and eventually that of others;

"field" means a particular area of learning used as an organizing mechanism for the NQF;

"level descriptor" means that statement describing learning achievement at a particular level of the NQF;

"National Qualifications Framework" (NQF) means the National Qualifications Framework as already in the Act;

"operational literacy" means an ability to use basic procedures and operations to complete complex tasks;

"unit standard" means registered statements of desired education and training outcomes and their associated assessment criteria together with administrative and other information as specified in the National Standards Bodies Regulations, 1998.

Purpose

2. Level descriptors for levels 1 to 4 of the NQF shall ensure coherence across fields of learning in the allocation of qualifications and standards to particular levels, and shall facilitate the assessment of the international comparability of standards and qualifications.

Level descriptors, NQF level 1

3. A learning programme leading to the award of a qualification or unit standards at NQF level 1 shall develop learners who demonstrate with regard to:

(a) applied competence –

(i) a general knowledge of one or more areas or fields of study, in addition to the fundamental areas of study;
(ii) an understanding of the context within which the learner operates;
(iii) an ability to use key common tools and instruments;
(iv) sound listening, speaking, reading and writing skills;
(v) basic numeracy skills including an understanding of the symbolic systems;
(vi) an ability to recognise and solve problems within a familiar, well-defined context;
(vii) an ability to recall, collect and organise given information clearly and accurately; and
(viii) an ability to report information clearly and accurately in spoken and written form;

(b) autonomy of learning –

(i) a capacity to apply themselves to a well-defined task under direct supervision;
(ii) an ability to sequence and schedule learning tasks;
(iii) an ability to access and use a range of learning resources; and
(iv) an ability to work as part of a group.

Level descriptors, NQF level 2

4. A learning programme leading to the award of a qualification or unit standards at NQF level 2 shall develop learners who demonstrate with regard to:

(a) applied competence –

(i) a basic operational knowledge of one or more areas or fields of study, in addition to the fundamental areas of study;
(ii) an understanding of the context within which the learner operates in a wider context;
(iii) an ability to use a variety of common tools and instruments;
(iv) the ability to apply literacy and numeracy skills to a range of different but familiar contexts;
(v) an ability to use their knowledge to select and apply known solutions to well-defined routine problems;
(vi) a basic ability to collect, organise and report information clearly and accurately and
(vii) an ability to express an opinion on given information clearly in spoken and written form;

(b) autonomy of learning –

(i) a capacity to work and learn in a disciplined manner in a well-structured and supervised environment;
(ii) an ability to manage their time effectively; and
(iii) an ability to develop sound working relationships and an ability to work effectively as part of a group.

Level descriptors, NQF level 3

5. A learning programme leading to the award of a qualification or unit standards at NQF level 3 shall develop learners who demonstrate with regard to:

(a) applied competence –

(i) a basic understanding of one or more fields' or disciplines' key concepts and knowledge, in addition to the fundamental areas of study;
(ii) an understanding of the organization or operating environment as a system;
(iii) application of skills in measuring the environment using key instruments and equipment;
(iv) an ability to use their knowledge to select appropriate procedures to solve problems within given parameters;
(v) a basic ability to summarise and interpret information relevant to the context from a range of sources;

(vi) an ability to take a position on available information, discuss the issues and reach a resolution; and
(vii) produce a coherent presentation and report, providing explanations for positions taken;

(b) autonomy of learning –

(i) a capacity to operate within clearly defined contexts;
(ii) an ability to work and learn within a managed environment; and
(iii) capacity to actively contribute to team effectiveness.

Level descriptors, NQF level 4

6. A learning programme leading to the award of a qualification or unit standards at NQF level 4 shall develop learners who demonstrate with regard to:

(a) applied competence –

(i) a fundamental knowledge base of the most important areas of one or more fields or disciplines, in addition to the fundamental areas of study;
(ii) an informed understanding of the key terms, rules, concepts, established principles and theories in one or more fields or disciplines;
(iii) an understanding of the organization or operating environment as a system within a wider context;
(iv) an ability to apply essential methods, procedures and techniques of the field or discipline;
(v) an ability to apply and carry out actions by interpreting information from text and operational symbols or representations;
(vi) an ability to use their knowledge to solve common problems within a familiar context;
(vii) an ability to adjust an application of a common solution within relevant parameters to meet the needs of small changes in the problem or operating context;
(viii) an ability to motivate the change by using relevant evidence;
(ix) a basic ability in gathering relevant information, analysis and evaluation skills; and
(x) an ability to communicate and present information reliably and accurately in writing and verbally;

(b) autonomy of learning –

(i) a capacity to take responsibility for their own learning within a supervised environment;
(ii) a capacity to take decisions about and responsibility for actions;
(iii) a capacity to evaluate their own performance against given criteria;

(iv) a capacity to take the initiative to address any shortcomings they find.

Short title

7. These Regulations shall be called the Level Descriptor Regulations (NQF levels 1 to 4), 2003.

APPENDIX C:

Draft level descriptors NQF level 5 – 8

These draft level descriptors incorporate the four sub-levels on NQF level 8 (Post-graduate 1 – 4) as published in the Government Gazette in the period between December 2001 and February 2002. The level descriptors above level 5 of the NQF have not been finalised and are included in this publication to be used as an example only.

NQF level	Applied competence	Autonomy of learning
Typically, a learning programme leading to the award of a qualification or unit standards at this level should develop learners who demonstrate:		
5	a. a fundamental knowledge base of the main areas of one or more fields or disciplines[11] b. an informed understanding of the important terms, rules, concepts, principles and theories in one or more fields or disciplines c. an understanding of the organisation or operating environment as a system within a wider context and in relation to the society d. an ability to effectively apply essential methods, procedures and techniques of the field or discipline e. an ability to interpret, convert and evaluate text[12] and operational symbols or representations f. an ability to use their knowledge to solve well-defined problems both routine and unfamiliar within a familiar context g. an ability to adjust an application of a solution within relevant parameters to meet the needs of changes in the problem or operating context; h. an ability to evaluate the change using relevant evidence[13] i. efficient information-gathering, analysis and synthesis, and evaluation skills j. presentation skills using appropriate technological skills; k. an ability to communicate information coherently using basic conventions of an academic / professional[14] discourse reliably in writing and verbally	l. a capacity to take responsibility for their own learning within a supervised environment m. take decisions about and responsibility for actions n. evaluate their own performance against given criteria

[11] The purpose of the qualification will determine whether one or more fields is covered.
[12] Text will include operation manuals, written instructions and so forth.
[13] This could include health and safety requirements, operation procedures and so forth.
[14] Professional incorporates what has traditionally been known as vocational.

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NQF level	Applied competence	Autonomy of learning
Typically, a learning programme leading to the award of a qualification or unit standard at this level aims to develop learners who demonstrate:		
6	a a solid knowledge base in at least one discipline/field b a sound understanding of one or more discipline/field's key terms, rules, concepts, established principles and theories; some awareness of how the discipline/field relates to cognate areas c effective selection and application of the central procedures operations and techniques of a discipline/field d an ability to solve well-defined but unfamiliar problems using correct procedures and appropriate evidence e a critical analysis and synthesis of information; presentation of information using basic information technology f an ability to present and communicate information reliably and coherently, using academic/professional discourse conventions and formats appropriately	a. capacity to evaluate their own learning and identify their learning needs within a structured learning environment b. a capacity to take the initiative to address these needs c. a capacity to assist others with identifying learning needs

NQF level	Applied competence	Autonomy of learning
Typically, a learning programme leading to the award of a qualification or unit standard at this level should develop learners who demonstrate:		
7	a. a well-rounded and systematic knowledge base in one or more disciplines/fields and a detailed knowledge of some specialist areas b. a coherent and critical understanding of one or more discipline/ field's terms, rules, concepts, principles and theories; an ability to map new knowledge onto a given body of theory; and an acceptance of a multiplicity of 'right' answers c. effective selection and application of the essential procedures, operations and techniques of a discipline/ field; an understanding of the central methods of enquiry and research in a discipline/ field; and a knowledge of at least one other discipline/ field's mode of enquiry d. an ability to deal with unfamiliar concrete and abstract problems and issues using evidence-based solutions and theory-driven arguments e. well-developed information retrieval skills; critical analysis and synthesis of quantitative and/ or qualitative data; presentation skills following prescribed formats, using IT skills appropriately f. an ability to present and communicate information and their own ideas and opinions in well-structured arguments, showing an awareness of audience and using academic/ professional discourse appropriately	g. a capacity to operate in variable and unfamiliar learning contexts, requiring responsibility and initiative h. a capacity to accurately self-evaluate and identify and address own learning needs i. an ability to interact effectively in a learning group

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NQF level	Applied competence	Autonomy of learning
Typically, a programme leading to the award of a qualification at this level aims to develop learners who demonstrate:		
8	a. a comprehensive and systematic knowledge of one or more disciplines /fields with depth, specialisation and up-to-date knowledge in some areas b. an informed and critical understanding of the theory and research methodology of one or more disciplines/fields and an understanding of how these relate to research problems in the field: an ability to relate theory to practice and vice versa and an ability to think epistemologically c. an ability to select and apply research methods effectively and to undertake a research project in an area of specialisation d. an ability to deal with complex problems using the intellectual, research and technological resources and tools provided by a discipline/profession e. effective information retrieval and processing skills; an ability to critically engage with current research and scholarship in an area of specialisation f. an ability to present and communicate academic/ professional work effectively, using the full resources of an academic/professional discourse appropriately	a. a capacity to operate in complex, unfamiliar contexts, requiring personal responsibility and initiative b. a capacity to accurately self-evaluate and take responsibility and initiative c. a capacity to manage learning tasks independently, professionally and ethically d. a capacity to critically evaluate own and others' work with justification

NQF level	Applied competence	Autonomy of learning
Typically, a programme leading to the award of a qualification at this level aims to develop learners who demonstrate:		
8 PG 1	a. a comprehensive and systematic knowledge base in one or more disciplines/ fields and a depth of knowledge in some specialist areas, informed by current developments in the field b. an informed and critical understanding of the principles and theories of one or more disciplines/fields and of emerging issues and debates in an area of specialisation; acceptance of the provisional nature of knowledge and of the boundaries and limitations of a discipline/field c. effective application of a discipline/ field's basic methods of enquiry, research and technology d. an ability to identify, analyse and deal with concrete and abstract problems using evidence-based solutions and theory-driven arguments e. an ability to identify information needs and retrieve information accordingly; critical analysis, synthesis and evaluation of quantitative and/or qualitative data; an ability to engage with journal articles, scholarly reviews and primary sources f. an ability to present and communicate academic/professional work effectively, catering for a range of audiences and using academic/professional discourse appropriately	a a capacity to operate in unfamiliar contexts, requiring personal responsibility and initiative b. a capacity to accurately self-evaluate and take responsibility for continuing professional /academic development c. a capacity to maintain professional working relationships d. an awareness of the social and ethical implications of applying knowledge to particular contexts

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NQF level	Applied competence	Autonomy of learning
Typically, a programme leading to the award of a qualification at this level aims to develop learners who demonstrate:		
8 PG 2	a. a comprehensive and systemic knowledge base in a discipline/field and a depth of knowledge in some areas of specialisation b. a coherent and critical understanding of the principles and theories of a discipline/field; and ability to critique current research and advanced scholarship in an area of specialisation; an ability to make sound theoretical judgements based on evidence and an ability to think epistemologically c. an understanding of a range of research methods, techniques and technologies and an ability to select these appropriately for a particular research problem in an area of specialisation d. an ability to identify, analyse and deal with complex and/or real world problems and issues using evidence-based solutions and theory-driven arguments e. efficient and effective information retrieval and processing skills; the identification, critical analysis, synthesis and independent evaluation of quantitative and/or qualitative data; an ability to engage with current research and scholarly or professional literature in a discipline/field f. an ability to present and communicate academic/professional work effectively, catering for a range of audiences by using a range of different genres appropriate to the context	a. a capacity to operate effectively in complex, ill-defined contexts b. a capacity to self-evaluate exercising personal responsibility and initiative c. a capacity to continue to learn independently for continuing academic/professional development

NQF level	Applied competence	Autonomy of learning
Typically, a programme leading to the award of a qualification at this level aims to develop learners who demonstrate:		
8 PG 3	a. a comprehensive and systematic knowledge base in a discipline/field with specialist knowledge in an area at the forefront of the discipline/field or area of professional practice b. a coherent and critical understanding of the theory, research methodologies and techniques relevant to a discipline/field; an ability to rigorously critique and evaluate current research and participate in scholarly debates in an are of specialisation; an ability to relate theory to practice and vice versa and to think epistemologically c. mastery of the application of research methods, techniques and technologies appropriate to an area of specialisation; an ability to undertake a research project and write up a research dissertation under supervision d. an ability to identify, analyse and deal with complex and/or real world problems and issues drawing systematically and creatively on the theory, research methods and literature of a discipline/field e. advanced information retrieval and processing skills; identification, critical analysis, synthesis and independent evaluation of quantitative and/or qualitative data; an ability to undertake a study of the literature and current research in an area of specialisation under supervision f. an ability to effectively present and communicate the results of research to specialist and non-specialist audiences using the resources of an academic/professional discourse; the production of a dissertation or research report which meets the standards of scholarly/professional writing	a. a capacity to operate effectively in complex, ill-defined contexts b. a capacity to c critically self-evalauate and continue to learn independently for continuing professional development c. a capacity to manage learning tasks autonomously, professionally and ethically d. a capacity to critically evaluate own and others' work with justification

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NQF level	Applied competence	Autonomy of learning
Typically, a programme leading to the award of a qualification at this level aims to develop learners who demonstrate:		
8 PG 4	a. a comprehensive and systemic grasp of a discipline/field's body of knowledge with expertise and specialist knowledge in an area at the forefront of the discipline, field or professional practice b. a critical understanding of the most advanced research methodologies, techniques and technologies in a discipline/field; an ability to participate in scholarly debates at the cutting edge of an area of specialisation; an ability to apply knowledge, theory and research methods creatively to complex, practical, theoretical and epistemological problems c. substantial, independent research and advanced scholarship resulting in the (re) interpretation and expansion of knowledge which is judged publishable by peers d. an ability to identify, conceptualise, design and implement research projects that address complex, ill-defined problems at the cutting edge of a discipline/field e. advanced information retrieval and processing skills; an ability to independently undertake a study and evaluation of the literature and current research in an area of specialisation f. an ability to effectively present and communicate the results of research and opinion to specialist and non-specialist audiences using the full resources of an academic/ professional discourse; the production of thesis which meets international standards of scholarly/ professional writing	a. a capacity to operate autonomously in specialised, complex, ill-defined and unpredictable contexts b. intellectual independence and research leadership through managing advanced research and development in a field professionally and ethically c. a capacity to critically evaluate own and others' work on the basis of independent criteria

APPENDIX D:

Description of level descriptors, critical cross-field outcomes and the composite components of the qualification

COMPONENT	LEVEL DESCRIPTOR	TITLE, PURPOSE, RATIONALE	EXIT LEVEL OUTCOMES	CRITICAL CROSS-FIELD OUTCOMES	SPEFICIC OUTCOMES (for unit standard -based qualifications)	ASSESSMENT CRITERIA	RANGE
DESCRIPTION	Level Descriptors are broad generic statements describing learning achievement at a particular level of the NQF, e.g. level 4 or 5 (see Appendix B)	The Title is a coherent and meaningful outcome (milestone/ end point) of learning or training that is formally recognised. The Purpose and Rationale provides a broad description of what holders of the qualification can do	The qualification is further defined by a number of Exit Level Outcomes. These provide a means to organise learning into coherent clusters, thus facilitating integrated assessment	Critical cross-field outcomes are generic outcomes that inform all teaching and learning	The unit standard title, which is broken down into smaller, more manageable outcomes, i.e. into Specific Outcomes	The Assessment Criteria are associated with the standard of performance and are used by the assessor to determine whether the outcome has been met. In line with the rules of combination for the qualification, the composite parts of the qualification are indicated as fundamental, core or elective	The Range refers o the context(s) in which the individual is expected to perform

Description of level descriptors, critical cross-field outcomes and the composite components of the qualification

NOTES