Curriculum Design and Development Practice

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Course Overview

This course well help you to design and develop curriculums, qualifications and courses within the national qualifications framework.

This course provides you a step by step approach from designing a qualifications framework to delivering a full curriculum, course or qualification with supporting documentation.

Course Outcomes

After you have completed this course you will be able to:

- Design a learning framework
- Design Outcomes Based Learning Programmes
- Develop Outcomes Based Learning Programmes
- Access, process adapt and use data for a wide range of texts
- Supervise a project team

Learning Map

This Learning Unit contains 4 Chapters and are set out here as follows:

Chapter Name	Chapter Outcomes
Chapter 1: **Design outcomes-based learning programmes**	✓ Drafting learning outcomes for the programme. ✓ Conducting analysis for learning design. ✓ Designing the learning programme. ✓ Drafting a brief for the development of the learning programme. ✓ Evaluating learning design. ✓ Plan and prepare for qualification design ✓ Develop a qualification ✓ Complete and review the qualification ✓ Develop a sector qualification matrix ✓ Facilitate the validation of qualifications with stakeholders ✓
Chapter 2: **Develop outcomes-based learning programmes**	✓ Planning and prepare for development. ✓ Developing learning materials. ✓ Developing learning facilitation guidelines. ✓ Piloting and evaluate the development.
Chapter 3: **Design and Develop a Qualification and Framework**	✓ Preparing for framework development. ✓ Designing the framework. ✓ Developing the framework content. ✓ Piloting and evaluating the framework.
Chapter 4: **Supervise and Manage Project Teams**	✓ Discussing and explaining the appropriateness of the various organisational structures. ✓ Supervising and monitoring a developmental project team. ✓ Reporting progress on a developmental project. ✓ Identifying and rectifying problems occurring in a developmental project. ✓ Setting up, running and closing a developmental project.

Contents

Resources for Learning Unit 1:

Recommended Reading:

Developing Learning Programmes for NQF-Registered Qualifications and Unit Standards -A Step by Step Guide by SAQA.

Book Title	Author	ISBN Number
ISO 9001:2000 Quality Management System Design	Jay Schlickman	ISBN 1-58053-526-7
Careers an organisational Perspective	AMG Schreuder, Al Theron	ISBN - 0702156582
ETD Practices in South Africa	M Meyer, J Mabaso, K Lancaster	ISBN 0409041459
Occupational directed ETD practices	Marius Meyer, Mark Orpen	ISBN 9780409023848
Practising education, training and development in SA organisations	Kiru Truman; Jo-Anne Botha; Jerome Kiley	ISBN 9780702176944
Curriculum, Plans, and Processes in Instructional Design	SanneDijkstra; Norbert M. Seel	ISBN 9781410610560

GLOSSARY OF ACRONYMS AND TERMS

Acronyms

NQF	The National Qualifications Framework
ACE	ACE Advanced Certificate in Education
CHE	Council for Higher Education
CTS	Conformance to Specifications
DoE	Department of Education
DoL	DoL Department of Labour
ETD	Education, Training and Development
ETQA	Education and Training Quality Assurance body
FET	Further Education and Training
HEQC	Higher Education Quality Committee
HI-EDQC	HI-EDQC (proposed) Higher Education and Training Qualifications and Quality Assurance Council
HRDS	HRDS Human Resource Development Strategy
HSRC	HSRC Human Sciences Research Council
ISO	International Standards Organisation
MoU	MoU Memorandum of Understanding
NAP	NAP (draft) A New Academic Policy for Programmes and Qualifications in Higher Education
NLRD	NLRD National Learners' Records Database
NQF	National Qualifications Framework
NSA	National Skills Authority
NSB	NSB National Standards Body
NSDS	NSDS National Skills Development Strategy
NSP	NSP National Skills Plan
OBE	Outcomes-based Education
QC	QC Qualifications and Quality Assurance Council
QMS	Quality Management Systems

RPL	RPL Recognition of Prior Learning
SAQA	South African Qualifications Authority
SDF	SDF Skills Development Facilitator
SETA	SETA Sector Education and Training Authority
SGB	Standards Generating Body
SMME	SMME Small-, Medium- and Micro Enterprise
SO	Specific outcome
SSP	SSP Sector Skills Plan
TOP	TOP (proposed) Trade, Occupational and Professional Qualifications and Quality Assurance Council
TQM	Total Quality Management
TUP	TUP Training of Unemployed Persons
US	Unit standard
WSIP	WSIP Workplace Skills Implementation Plan
WSP	WSP Workplace Skills Plan

Definitions

Accreditation	This means the certification, usually for a particular period of time, of a person, a body or an institution as having the capacity to fulfil a particular function in the quality assurance system set up by the South African Qualifications Authority in terms of the (SAQA) Act. Accreditation means the certification, usually for a particular period of time, of a person, a body or an institution as having the capacity to fulfil a particular function in the quality assurance system set up by SAQA in terms of the Act (No. 58 of 1995).
Applied competence	This means the ability to put into practice in the relevant context the learning outcomes acquired in obtaining a qualification
Approval/recognition	Approval/recognition refers to providers of short learning programmes that are offering learning programmes that are not aligned to unit standards and qualifications.
Assessment criteria	Assessment criteria are statements that describe the standard to which learners must perform the actions, roles, knowledge, understanding, skills, values and attitudes stated in the outcomes. They are a clear and transparent expression of requirements against which successful (or unsuccessful) performance is assessed.
Assessor	This means the person who is registered by the relevant Education and Training Quality Assurance body in accordance with criteria established for this purpose by a Standards Generating Body, to measure the achievement of specified National Qualifications Framework standards and qualifications
Course	Course refers to the content of the short learning programme whereby learners may progressively attain the applied knowledge as described in unit standards and/or qualifications.
Credit-bearing short course	A Credit-bearing short course is a type of short learning programme for which credits, in relation to the course's contribution to a unit standard and/or (part) qualification, are awarded. (Paraphrased from CHE, 2001:44). A credit-bearing short course usually contains less than 120 credits.
Critical cross-field outcome	Learners are also required to demonstrate certain life skills, which will not only enhance their learning, but will also ensure that these skills are transferable to their private lives. These skills are referred to as "generic abilities" and are expressed as "critical cross-field outcomes".
Critical outcomes	This means those generic outcomes that inform all teaching and learning
Curriculum	All of the teaching and learning opportunities that take place in learning institutions, including the aims and values of the learning, the learning outcomes, the content, activities, methods, media involved, the teaching and learning strategies, the assessment, delivery and moderation.

Education and Training Quality Assurance body (ETQA)	Means a body accredited in terms of section 5(1)(a)(ii) of the (SAQA) Act. The body is responsible for monitoring and auditing achievements in terms of national standards and qualifications and to which specific functions relating to the monitoring and auditing of national standards and qualifications have been assigned in terms of section 5(1)(b)(i) of the (SAQA) Act
Exit level outcomes	Exit Level outcomes mean the outcomes to be achieved by a qualifying learner at the point at which he or she leaves the programme leading to a qualification.
Formative assessment	Formative assessment refers to assessment that takes place during the process of learning and teaching.
Integrated assessment	This refers to that form of assessment that permits the learner to demonstrate applied competence and which uses a range of formative and summative assessment methods.
Job profile	Documentation of the skills necessary to perform each function within an organisation.
Learning programme	The sequential learning activities associated with curriculum implementation, leading to the achievement of a particular qualification or part qualification.
Learning Programme	Learning Programme Learning Programme means the sequential learning activities, associated with curriculum implementation, leading to the achievement of a particular qualification or part qualification (SAQA, 2000:5).
Moderating Body	This refers to the body specifically appointed by the Authority for the purpose of moderation
National Standards Body (NSB)	NSB refers to a body registered in terms of section 5(1)(a)(ii) of the (SAQA) Act. The body is responsible for establishing education and training standards or qualifications, and to which specific functions relating to the registration of national standards and qualifications have been assigned in terms of section 5(1)(b)(i) of the (SAQA) Act.
Non-credit-bearing short course	A non-credit-bearing short course is a type of short learning programme for which no credits are awarded in relation to unit standards or (part) qualifications depending on the purpose and/or assessment of the programme.
Outcome	An Outcome means the contextually demonstrated end products of the learning process. An outcome is the demonstrable and assessable end products of a learning process. An exit-level outcome has the same meaning, but is expressed as the overall result of learning for a qualification.
Primary focus	This means that activity or objective within the sector upon which an organisation or body concentrates its efforts
Programme	Programme means a coherent set of courses, leading to a certain qualification (SAQA, 2000:5).
Recognition of prior learning (RPL)	Recognition of prior learning is about:
	o identifying what the learner knows and can do;

	o matching the learner's skills, knowledge and experience to specific standards and the associated criteria;
	o assessing the learner against those standards; and
	o crediting the learner for skills, knowledge and experience built up through formal/informal/non-formal learning that occurred in the past.
Qualification	Qualifications are design to guide the development of learning programmes. They state what a learner needs to know, do and apply in order to be recognised in a particular area or occupation.
Reflexive competence	The demonstrated ability to integrate our performance with our understanding so that we are able to adapt to changed circumstances appropriately and responsibly and explain the reason behind these adaptations (refer to www.saqa.org.za/docs/critguide/assessment/ch03.pdf for more information).
Rubric	An instrument (often a grid or table) used to assess learners' performance on the outcomes of a particular task.
Short course	A short course is a type of short learning programme through which a learner may or may not be awarded credits, depending on the purpose of the programme.
Short Learning Programme	The term Short Learning Programme describes all short programmes, whether credits are awarded or not, and is inclusive of skills programmes, credit-bearing short courses and non-credit-bearing short courses.
Skills audit	A process whereby the skills held by an organisation/individual are compared with the skills required by an organisation/individual.
Skills profile	Documentation of the skills held by employees within an organisation.
Skills Programme	A Skills Programme is occupationally based and when completed will constitute credits towards a qualification registered on the NQF. Provisioning is undertaken by a training provider accredited by an ETQA (Skills Development Act No. 97 of 1998). A skills programme is a type of short learning programme.
Standards Generating Body (SGB)	This refers to a body registered in terms of section 5(1)(a)(i) of the (SAQA) Act. The body is responsible for establishing education and training standards or qualifications, and to which specific functions relating to the establishment of national standards and qualifications have been assigned in terms of section 5(1)(b)(i) of the (SAQA) Act
Summative assessment	Summative assessment is assessment for making a judgment about achievement. This is carried out when a learner is ready to be assessed at the end of a programme of learning.
Unit standard	Unit standard A unit standard is a description of the outcomes of learning for which the learner will receive credit. This means registered statements of desired education and training outcomes and their associated assessment criteria together with administrative and other information as specified in these regulations

	A unit standard is comprised of the following:
	o unit standard title – a coherent and meaningful outcome (milestone/end-point) of learning or training that is formally recognised;
	o specific outcomes – the title broken down into smaller, more manageable outcomes;
	o assessment criteria – the associated standards of performance used by the assessor to determine whether the outcome has been met; and
	o range – the contexts in which the individual is expected to perform.
Quality Management Systems	Quality Management Systems means the combination of processes used to ensure that the degree of excellence specified is achieved. A quality management system is the sum of the activities and information an organization uses to enable it to better and more consistently deliver products and services that meet and exceed the needs and expectations of its customers and beneficiaries, more cost effectively and cost efficiently, today and in the future.
Quality Assurance	Quality Assurance means the sum of activities that assure the quality of products and services at the time of production or delivery. Quality assurance procedures are frequently applied only to the activities and products associated directly with the goods and services provided to external customers.
Quality Audits	Quality Audits are activities undertaken to measure the quality of products or services that have already been made or delivered. In itself a quality audit has no impact on quality.
Quality Control	Quality Control is undertaken by the person(s) who make the product (or deliver the service) for internal purposes.

Abbreviation	Description
ABET	Adult Basic Education and Training
ATR	Annual Training Report, reflects the actual data for the past year starting 1st April of the past year to the 31st March of the current year
BBBEE	Broad-Based Black Economic Empowerment
BEE	Black Economic Empowerment
Disability	The Employment Equity Act of 1998 defines people with disabilities as 'people who have a long-term or recurring physical or mental impairment that substantially limits their prospects of entry into or advancement in employment'. Physical impairments include hearing and visual impairments, paralysis, amputations and problems with internal organs. Mental impairment includes clinically defined mental and emotional illnesses and learning disabilities.
DoL	The Department of Labour
ESSA	Employment Services for South Africa
ICT	Information and Communications Technology
ISDF	Independent Skills Development Facilitator, has the same responsibilities as an SDF but works as a consultant, i.e. an ISDF is not an employee of the client organisation
Isett	Information Systems, Electronics and Telecommunications Technologies
IT	Information Technology
L Number	Same as SDL Number, found on your EMP201 form
NQF	National Qualifications Framework
NSDS	National Skills Development Strategies
OFO	Organising Framework for Occupations
SARS	South African Revenue Services
SASCO	South African Standard Classification of *Occupations*
SAQA	South African Qualifications Authority
SDA	Skills Development Act (No. 97 of 1998) as amended by the Amendment - Skills Development Act – 2003 and 2008
SDF	Skills Development Facilitator, someone nominated within the organisation to assume responsibility for gathering and submitting the ATR and WSP data to a Seta
SDL	Skills Development Levy
SDL Number	Skills Development Number, found on your EMP201 form
SDLA	Skills Development Levies Act (No. 9 of 1999)

Abbreviation	Description
Seta	Sector Education Training Authority
SIC	Standard Industrial Classification
SME	Small and Micro Enterprise. Organisations having 49 or fewer employees.
SOP	Standard Operating Procedure
SSP	Sector Skills Plan
the dti	The Department of Trade and Industry
WSP	Workplace Skills Plan, looks forward, covering the period 1st April of the current year to 31st March of the next year

Chapter 1:
Design Outcomes Based Learning Programmes

Learning Outcomes:

The following learning outcomes are covered in this module.

- ✓ Drafting learning outcomes for the programme.
- ✓ Conducting analysis for learning design.
- ✓ Designing the learning programme.
- ✓ Drafting a brief for the development of the learning programme.
- ✓ Evaluating learning design.

A Note on Terminology

In this module use the following terms in these senses:

A **programme** is a broad term covering all the components of a systematic attempt to provide training. A programme would normally include specific courses or events.

A **course** is a component of a programme aimed at meeting some specific purpose.

A **module** is a one of a set of units of identical or very similar size and duration that usually deal with one specific part of a course or programme. A term often used, somewhat innacurately, as a synonym for a course within a programme. Both programmes and courses can be broken up into modular components but many courses are not really modular.

Curriculum is a broad term covering everything that is designed to happen in a programme or course. Literally the term means a **course to be run**, and hence, educationally, a course to be followed and completed. Thus the term curriculum covers the ideas and guidelines (in the form of official documents such as syllabi or course description) about **what** is taught. It explicitly or implicitly will have a rationale for **why** something should be taught and **to whom**. The curriculum's guidelines to trainers and the texts and manuals it prescribes will influence **how** something is taught, and **when** and **where**. What actually **happens** in the training process (whether it was consciously intended or was unintended) is also part of the curriculum.

Introduction to Planning and Design of Learning Programmes

A "Good" Learning Programme

"Would you tell me, please, which way I ought to go from here?", "That's depends a good deal on where you want to get to."... (Alice in Wonderland, Chapter VI, P 64; Carroll, 1960)

1. Challenges learners to higher level learning.
   All learning programmes require some "lower level" learning, i.e., comprehending and remembering basic information and concepts. But many courses never get beyond this. Examples of "higher level learning" include problem solving, decision making, critical thinking, and creative thinking.
2. Uses active forms of learning.
   Some learning will be "passive", i.e., reading and listening. But "higher level learning," almost by definition, requires active learning. One learns to solve problems by solving problems; one learns to think critically by thinking critically; etc.
3. Gives frequent and immediate feedback to learners on the quality of their learning.
   Higher level learning and active learning require frequent and immediate feedback for learners to know whether they are "doing it" correctly.
   "Frequent" means weekly or daily; feedback consisting of "two mid-terms and a final" is not sufficient.
   "Immediate" means during the same class if possible, or at the next class session.

4. Uses a structured sequence of different learning activities.
   Any course needs a variety of forms of learning (e.g., lectures, discussions, small groups, writing, etc.), both to support different kinds of learning goals and different learning styles. But these various learning activities also need to be structured in a sequence such that earlier classes lay the foundation for complex and higher level learning tasks in later classes.

5. Has a fair system for assessing and grading learners.
   Even when learners feel they are learning something significant, they are unhappy if their grade does not reflect this. The grading system should be objective, reliable, based on learning, flexible, and communicated in writing.

What are Learning Outcomes

Learning programme outcomes describe what learners are required to know and be able to do as a result of the learning programme. The outcomes thus describe the end state, and do not describe all the learning along the way.

Learning outcomes are accompanied by criteria, which are statements that define the quality of performance expected by competent learners i.e. they specify the critical indicators of competence.

Outcomes may also be accompanied by clarifying statements that provide information on the context and scope of the required performance, as well as any other clarifying information that may be required to define the required result of learning.

What is Outcomes-based (Competency-based Modular) Training?

Outcomes-based (Competency-based Modular) Training is training that is focused on the ability of the learner to perform at a desired level or standard.

In Outcome-based training, a set of performance objectives are clearly defined beforehand. They should be defined in such a way that they can only be attained if specific actions or tasks are carried out to a prescribed minimum standard of performance.

Each program must specify the competencies to be demonstrated by the learner as well as the criteria for successfulperformance.

The individual learner must successfully master the knowledge, skills and attitudes of the objectives.

The role of the trainer or facilitator is to facilitate the resources and conditions to ensure that the learner obtains the required level of mastery.

*Because of the Specific Nature of Outcomes-based training there are **different design steps to be taken**, according to Opperman (1988:5), which are the following:*

Design Steps to Consider

Job Analysis

This involves the identification, description and analysis of the duties and tasks a learner must perform as well as the skills a learner must possess or acquire for a particular job.

Formulation of Performance Objectives

This involves the formulation of measurable performance objectives derived from the specified tasks. A performance objective is a description of a level of performance a learner has to attain. This consists of three important elements"

- A practical action the learner has to carry out
- The condition under which the action has to be carried out
- Criteria or standards with which the learners have to comply before they can be regarded as being competent to master the knowledge, skill or attitude defined in the objective.

Sequencing Performance Objectives

This step involves the performance objective to be arranged and placed in a particular order. It is now determined how many underlying sub-objectives, subtasks or steps are required to master a specific terminal performance objective.

The order in which the learner should complete the subordinate tasks to arrive at the terminal objective is now determined.

Development of Instructional Modules

In this step a planned series of learning experiences is designed to help the learner master specific objectives. This should be a self-contained instruction module with the following characteristics:

Self-contained – should give clear guidelines and direction for the learner to carry out particular tasks from start to finish.

Should provide for controlled progress, feedback and mastery. Learners should be able to progress at the rate dictated by their own particular abilities and aptitudes. Feedback should be provided by criterion test at the end of each module or after a set of tasks. Mastery should be at the end of a module where the learner hands in an assignment to be marked as competent. Any learner should be given at least three attempts to attain this mastery.

Each module should be a complete package with its own performance objectives, logical and systematic flow of content with a definite beginning and end.

Each learner's progress should be monitored throughout a progress chart. This will show where a learner is at any stage in his/her training.

Development of a Management System

Outcomes based-training attaches value to a good training system. This system should provide for planning, organising, leading and control:

Control of the learner's progress and performance – record keeping

Planning and organising by establishing training space, managing the training sessions, organising the workshop lay-out and providing the necessary resources, aids, material and equipment to ensure an effective training session takes place.

Setting Entry Requirements

Decisions must be taken regarding the entry requirements the target group has to meet to gain admission to the training program.

This will involve analysis, selection and placement of the target group according to prior learning, aptitude, abilities and physical qualities as well as the requirements of the specific occupation.

Using Remedial Methods

Not all learners achieve the same degree of success. No training program can meet everyone's special needs and cater for everyone's attitudes and interests. Provision should be made for the learner who is not progressing satisfactorily or may need additional help and guidance. Short-comings should be identified and remedial training must be applied to defects that can be changed. Thus outcomes-basted training should have remedial measures that can be included in the program to make provisions for specific learners who are experiencing problems with the completion of the modules. The course could be adapted to contain bridging modules to help the learner to gain more experience before training.

Ensuring training and development produces the results you need for your organisation

You can do the following in advance of the training session to increase the likelihood that the training you do will actually make a difference.

1. Make sure the need is a training and development opportunity.

Do thorough needs and skills analysis to determine the real need for training and development. Make sure the opportunity you are pursuing, or the problem you are solving is a training issue.

If the employee is failing in some aspect of her job, determine whether you have provided the employee with the time and tools needed to perform the job. Does the employee clearly understand what is expected from her on the job? Ask yourself whether the employee has the temperament and talent necessary for her current position; is the job a good skill, ability, and interest fit?

2. Create a context for the training and development.

Provide information for the employee about why the new skills, skill enhancement, or information is necessary. Make certain the employee understands the link between the training and his job.

You can enhance the impact of the training even further if the employee sees the link between the training and his ability to contribute to the accomplishment of the organisation's business plan and goals.

It's also important to provide rewards and recognition as a result of successful completion and application of the training. (People like completion certificates, for instance. One company I know lists employee names and completed training sessions in the company newsletter.) This contextual information will help create an attitude of motivation as the employee attends the training. It will assist the employee to want to look for relevant information to apply after the session.

3. Provide training and development that is really relevant to the skill you want the employee to attain

Training needs to be relevant to his work situation. Check if this is indeed the information he needs to expand his work horizons. You may need to design a session internally if nothing from training providers exactly meets your needs. Or, seek out providers who are willing to customise their offerings to match your specific needs.

It is ineffective to ask an employee to attend a session on general communication when his immediate need is to learn how to provide feedback in a way that minimizes defensive behaviour. The employee will regard the session as mostly a waste of time or too basic; his complaints will invalidate potential learning. Whenever possible, connect the training to the employee's job and work objectives. If you work in an organization that invests in a self-development component in the appraisal process, make sure the connection to the plan is clear.

4. Favour training and development that has measurable objectives and specified outcomes

Training and development should transfer back to the job. Design or obtain training that has clearly stated objectives with measurable outcomes. Ascertain that the content leads the employee to attaining the skill or information promised in the objectives. With this information in hand, the employee knows exactly what he can expect from the training session and is less likely to be disappointed. He will also have ways to apply the training to the accomplishment of real workplace objectives.

5. Provide information for the employee about exactly what the training session will involve

Explain what is expected of the employee at the training session. This will help reduce the person's normal anxiety about trying something new. If she knows what to expect, she can focus on the learning and training transfer rather than her potential discomfort with the unknown. (When I offer a team building session, as an example, people invariably ask me if they will have to touch each other or "do group hugs". They don't, but this really drives home the point for me about letting people know what to expect prior to attending the session.)

Make clear to the employee that the **training is his/her responsibility and he/she needs to take the training seriously**.

She is expected to apply herself to the training and development process before, during, and after the session. This includes completing pre-training assignments, actively participating in the session, and applying new ideas and skills upon returning to work.

6. Pre-training assignments.

Ensure that internal or external training providers supply pre-training assignments. Reading or thought-provoking exercises in advance of the session promote thoughtful consideration of the training content. Exercises or self-assessments, provided and scored in advance of the session, save precious training time for interaction and new information. These ideas will engage the employee in thinking about the subject of the session prior to the training day. This supplies important paybacks in terms of his interest, commitment, and involvement.

7. Train supervisors and managers either first or simultaneously

This is so they know and understand the skills and information provided in the training session. This will allow the supervisor to: model the appropriate behaviour and learning, provide an environment in which the employee can apply the training, and create the clear expectation that she expects to see different behaviour or thinking as a result of the training. An executive, who has participated in the same training as the rest of the organization, is a powerful role model when he is observed applying the training.

8. Train managers and supervisors in their role in the training process.

The average supervisor has rarely experienced effective training during his career. Even rarer is the supervisor who has worked in an environment that maximized transfer of training to the actual workplace. Thus it is a mistake to believe that supervisors automatically know what must happen for effective training to take place.

9. You can coach supervisors about their role.

Provide a handy tip sheet that explains in detail the organization's expectations of the supervisor in support of effective training. At one General Motors location, the education and training staff provided a three-hour class called, *The Organization and the Training Process*. The session was most effective in communicating roles and responsibilities to supervisory staff.

10. Ask supervisors to meet with employees prior to the training session

Discuss with the individual what he hopes to learn in the session. Discuss any concerns he may have about applying the training in the work environment. Determine if key learning points are important for the organization in return for the investment of his time in the training. Identify any obstacles the employee may expect to experience as he transfers the training to the workplace.

Drafting Learning Outcomes

The designing of learning programmes is preceded by the training needs analysis process which was discussed previously.

But what is involved in designing the actual learning programme?

There are myriads of texts, diagrams and flow charts which outline a system for designing programmes and they all share similar features.
Take this description below:

Preparing a learning programme plan

1. Have a clear purpose and a general plan to achieve your aims.
2. Write a list of objectives or learning outcomes.
3. List the ideas, methods and techniques, procedures and resources which might be used to fulfill each objective.
4. Select the ideas, methods and techniques, procedures and resources which are most likely to fulfil the objectives of each step. The design will not necessarily consist of one design element per step in the general plan. A design step may consist of several design elements.
5. Test each step in the design and check the resources allocated to each step:
   - ✓ are they going to encourage learning?
   - ✓ are they practical – can you and the learner do them?
   - ✓ are they appropriate for the learners?
   - ✓ are they in agreement with the overall purpose?
   - ✓ are they relatively free of ambiguity – will the learners understand what they have to do?
   - ✓ do they provide sufficient variety?
   - ✓ do they flow easily from one to the other?
   - ✓ are they economical – could you accomplish the same thing with less expenditure of time, effort and emotional energy?
6. Plan the details of each step in the design:
   - ✓ allocate time
   - ✓ determine groupings of people
   - ✓ plan arrangement of rooms and furniture
   - ✓ write out instructions to be given to learners
   - ✓ prepare discussion questions
   - ✓ prepare written and oral input
   - ✓ prepare assignments, tests and exams

7. List all materials and resources required

8. Distribute staff roles and responsibilities:
   - ✓ Who must do what in preparation for the event?
   - ✓ Who does what during the administration of the event?
   - ✓ Check staff commitment to the design and to their responsibilities

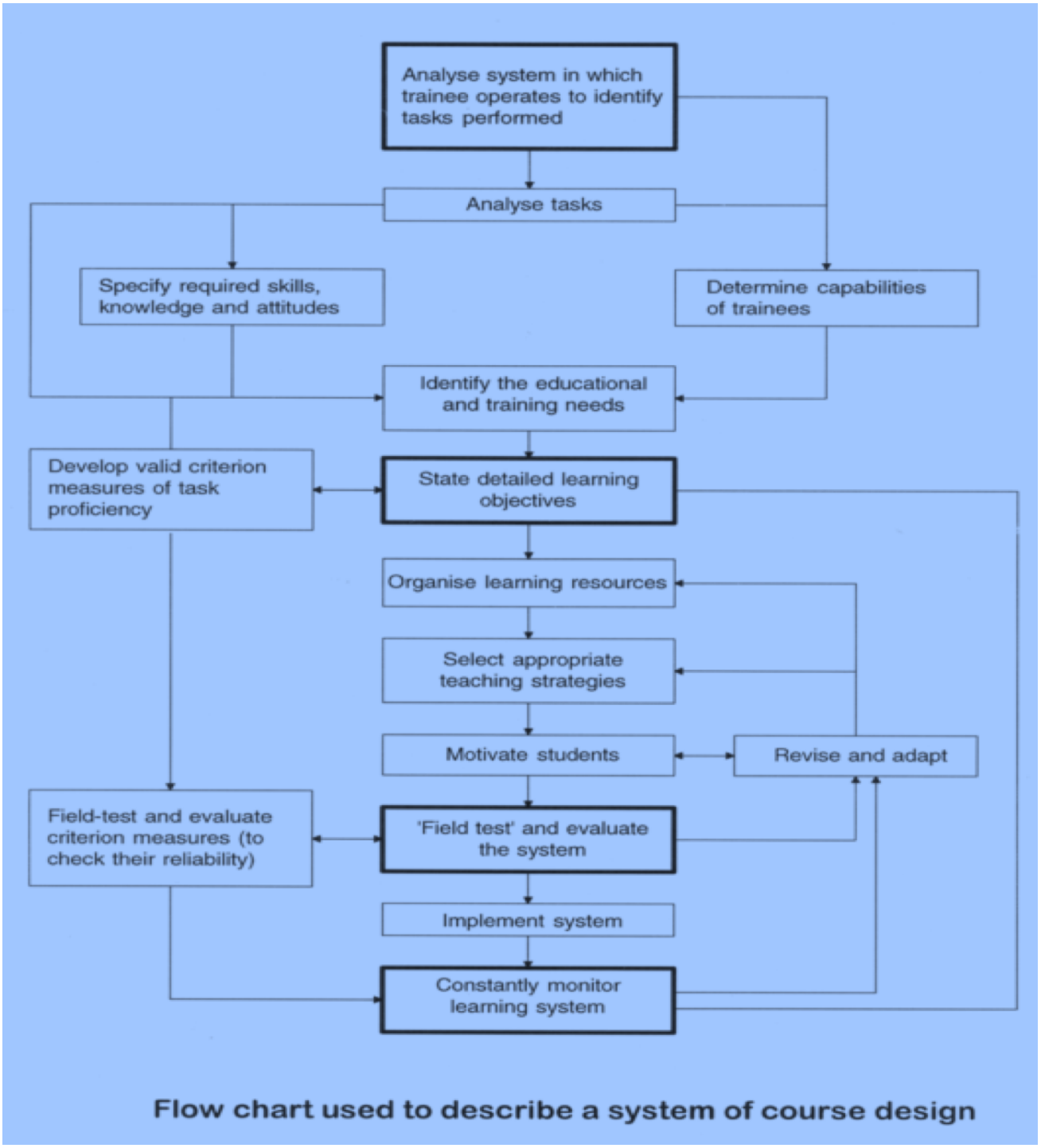
9. Try out new or unfamiliar procedures, techniques and resources. Pre-view any visual aids and check that all equipment works.

10. Evaluate the plan and make any changes indicated. A checklist may be useful in evaluating your plan.

11. Make any other administrative or control arrangements

12. Prepare a trainer guide if required

On the next page is a typical comprehensive diagram of the system for designing a learning programme. Most of these charts adopt a systems approach to course design that allows for the same steps to be gone over in round after round so that the course may be improved after each implementation.

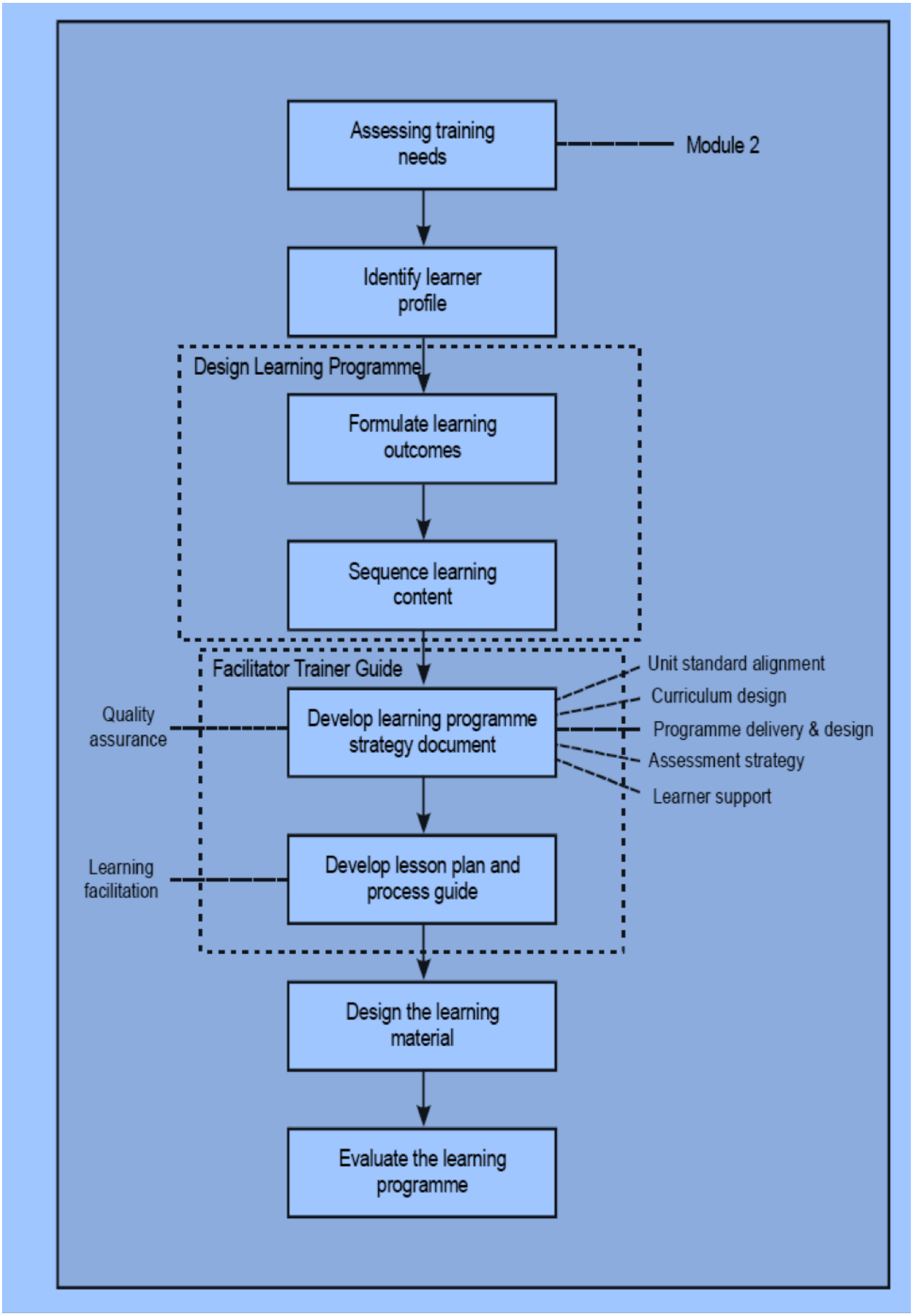


Flow chart used to describe a system of course design

Source: Romiszowski, A.J. 1981. ***Designing instructional systems***. London: Kogan Page, p. 20

The figure on the next page illustrates the relationship between needs analysis process (that we did in Module 1), and the specifically design phase of a learning programme and associated activities such as designing facilotator guides and evaluating the programme.

Steps in planning and designing an outcomes-based training programme (Coetzee, 2006)


Assessing training needs
Module 2
Identify learner profile
Design Learning Programme
Formulate learning outcomes
Sequence learning content
Facilitator Trainer Guide
Unit standard alignment
Curriculum design
Quality assurance
Develop learning programme strategy document
Programme delivery & design
Assessment strategy
Learner support
Learning facilitation
Develop lesson plan and process guide
Design the learning material
Evaluate the learning programme

Here is a another way of looking at planning and design – a very practical checklist on what you need to do to plan, design and run a learning programme (Aitchison, 2007, pp. 22-23):

Checklist: Planning a training programme or course		
1	What evidence is there that the training programme or course is needed?	Description of how training needs discovered
2	What is the context of this programme or course?	Describe briefly
3	What is the target group?	Who is it for?
4	Who are the actual participants?	Who has enrolled? What are they like? What is their profile?
5	What is the purpose or aim of the programme or course?	Does this aim relates well to a broader training programme? Does it meet the needs identified in 1.
6	What are the learning outcomes/educational objectives of the event?	Outcomes/bjectives are appropriate and are realistic and realisable in time given
7	Have you got any necessary authorization?	Requisitions for venue, equipment and materials are submitted in time
8	What is your plan for the management and administration of the event	Who are the staff? What will they do?
9	How will the actual running of the programme or course be controlled?	To what extent will participants have a say in the running of the programme or course?
10	What broad educational approaches or strategies will you use?	Do the approaches fit your educational beliefs and ideology? Will they fit the beliefs and ideologies of the participants? Do they fit in with the outcomes/ objectives?
11	What is the timetable for the programme or course?	Is the amount of time allocated for each component and activity (including breaks) appropriate?
12	What is the content?	Is the content relevant and reasonably selected in relation to the objectives?
13	Does the instructional sequence seem reasonable?	Is each stage clearly identifiable and is the content divided into manageable units?

14	What appropriate educational methods and techniques will you use that are relevant to the objectives?	What is the appropriate size of learner groups and what methods and techniques are appropriate for this size of group? Are instructions and questions to learners clear and concise? Is there suitable preparation of the learner (including feelings, motivation, study and enabling skills)? Are there sufficient activities and interactions with materials? Is there provision for feedback to learners on their learning and for their own reflection on their learning?
15	What appropriate facilities, media and resources will be used and when?	Has the general environment, venue, furniture, seating, equipment, materials, catering etc. been prepared for, tested and got ready? Do the trainers know how to use the technology?
16	Has the environment/venue been made as conducive to learning as possible?	Does your plan take into account the learning environment (including locality, venue, size, acoustics, emotional climate, etc.)?
17	How will learning be assessed?	Will suitable assessment methods be used which take all objectives into account? How will assessment results be communicated to learners? Have you taken into account what impact particular assessment methods will have on learners?
18	How are you going to report on the progress of a group of learners	What report or reports are expected and who are they for?
19	How will the programme or course be evaluated?	Learner evaluation? Staff evaluation? Organisation evaluation? Sponsor evaluation? Who runs the evaluation?
20	How will you finally report on the programme or course?	What essential details must be included in the report. (e.g. purpose, type of event, facilitator, participants, date, venue, observed outcomes, strengths and weaknesses)?
21	How and when will you reflect critically on your own performance as an trainer in the design and implementation?	
22	Does the plan appear flexible enough to deal with reasonable contingencies?	
23	Is the layout of the plan or trainer guide clear, uncomplicated and clearly printed?	Could another trainer easily use it?
24	Will documentation/records be suitably stored or archived	Will another trainer easily find this material?

Planning and Design of Learning Material

Developing a Learner Profile

A sound learner-centered approach to training design means that the needs, level and preferences of the targeted learners will largely determine the content, structure, methods and language and educational level of any programme or course.

The most useful educational experiences depend upon an accurate assessment of the learners and their situation. We need to know what the learners are ready to learn, what they need to learn and what they are motivated to learn.

Some of this information may already have been determined in the prior needs analysis process.

Usually, however the needs analysis stage gathers fairly general information, perhaps about a whole broad group of employees. What is now required is information about a very specific group of people – those who are going to attend the actual programme or course you are designing or running. Who are these specific learners and what are their needs?

There is a preliminary step and three steps to identifying educational needs:

1. Select a broad focus
2. Collect information
3. Analyse information
4. Interpret information

The identifying of educational needs is a specific step in the designing of educational events. It is something which we do in preparation for a specific event, but it is also something which a good trainer will do during and following an event. On the basis of his or her daily experiences the trainer will make written or mental notes of apparent educational needs.

Select a broad focus

The broad focus suggests the general content area or underlying concern which motivates the particular learning programme. Often the broad focus will be determined by someone other than the trainer. An organization may set the focus, or a group may come with a request, e.g., “We need help in running committee meetings better.” Setting the broad focus will help to do the following:

1. Indicate what information to collect
2. Indicate who the course is likely to be arranged for.
3. Indicate the time and the place
4. Indicate who else might be involved in planning.

Collect information

You will have to decide:

1. What information you require;
2. What form you want it in (anecdotes or statistics?), and
3. How you are going to collect it.

Some kinds of information you may need

The general focus will determine the kinds of information which will be needed to identify the educational needs of the learners. Information about arrangements, facilities, and the situation of the trainers may also be required. Here are some of the kinds of information you should consider collecting:

Who?	**The Learners**	a) Basic demongraphic information – ages, sex, geographical factors (urban/rural; local/from afar), socio-economic status, language, cultural background, educational background, employment status, access to information and communications technology b) Attitudes and values c) Knowledge: what do they know and what do they want to know? d) Understanding and perception – of words, concepts, of self, others and the world e) Behaviour and skills: physical (any disabled), relational f) Mental skills, academic abilities g) Relationships: learner-learner and learner-trainer h) Current pressures concerns and problems i) Expectations
	The Trainers	a) Abilities b) Expectations c) Desires
	The body or organization	a) Organizational needs b) Programme needs c) New and planned developments
When?		a) The time of the year b) The time of the week b) The time of the day c) The length of time
What?		a) Resources available: materials, equipment and people b) Physical arrangements: rooms, furniture, etc.

A Learner profile checklist (adapted from Coetzee, 2002)

a.	• **Demographic information**: • What is the average experience of the learners? • What is the ratio of male and female learners? Indicate the percentages. • How many learners are employed? • In what different fields are the learners employed? • Where do most of the learners live? In rural or urban areas? • What is the ratio of the different cultural groups? Indicate the percentages.
b.	• **Language level**: • Are they first-language, second-language or third language English speakers? Indicate the percentages.
c.	• **Access to technology**: • Do the learners have access to tape recorders, video recorders, CD players, DVD players, computers with CD-ROM or DVD?
d.	• **Entry level of the learners**: • What is the highest level of education? • What are the prerequisites for each of the courses or subjects?
e.	• **Motivational information**: • Why have the learners enrolled for the course? • How does the programme or course relate to their work? • What is the learners' attitude towards the programme? • What are the hopes and fears of the learners?
f.	• **Information on learning**: • What previous experience do the learners have of learning by means of a study text? • How much time do the learners have available to study and master a course or programme? • Do the learners have enough time to study? • Do they have enough resources for reference purposes, if necessary?
g.	• **Learning programme information**: • What do most learners know about the learning programme? • Do they have any previous experiences in this field or domain? • What personal interests and experiences relevant to the learning programme do the learners have?

Another part of the profile that could be developed is what are described as “learning styles”.

Learning styles are the characteristic ways in which individuals tend to learn. Thus, for example, some people will respond better to verbal instruction, others will learn best from visually enriched learning. Some will learn best by doing or applying, others will be most interested in theoretical material. Many comprehensive programmes or courses start with exercises which help learners and trainers determine what the individual learning styles are.

Some information collecting devices and procedures

Interview	Open-ended interview
	Interview schedule
Questionnaire	
Open-ended question, sentence theme	
Unfinished stories and incidents	
Observation and recording of performance	
Special assignments and exercises	
Survey	
Diaries	
Check lists or ratings	preferences
	interests
	activities
	priorities and values
	problems and needs
Standardized tests	
Guessing	
Reflection and recollection	

Analyse the information

Analyising the information you have collected is a process of asking quesitons of it and letting it speak for you.

There are several things you can do:

1. Collate the information: Sort it and put it together according to appropriate or planned categories, e.g., there are 10 females and 20 males.
2. Look for inherent categories: For example groups of people with interests in training, information and communications technology or career development may appear in the information.
3. Look for patterns and relationships: “What is the relationship between age and interest in self development?” for example.

The following might be the result of an analysis of information collected in regard to the broad focus “public service communications with the mass print media”.

15 people said that they read newspapers fairly frequently, 10 occasionally and 5 hardly ever.

Their average reading level is Grade 10.

Most people reported that the main actual reading was : sensational newspaper news stories, picture stories, movie magazines, sports, murder mysteries.

People who read frequently report that they do so in order to be able to discuss the things being discussed by their friends.

Most people reported that found it difficult making time to read.

English is the first language of only 7 of the participants.

Some 17 people listen to 2 news broadcasts or more a day, 6 listen to one news broadcast a day and 7 listen to no news broadcasts 25 regularly watch television.

14 people thought Lulu was the President or leader of Brasil, 9 thought Lulu was pop singer and 7 thought Lulu was somebody involved in a celebrity sex scandal.

Interpret the information

To interpret the information is to try and answer the question, “What does the information mean?” You want to decide what the learner profile indicates abouteducational needs. Usually the patterns of information which have been revealed through the process of analysis are open to several interpretations.

1) Identify alternative explanations

We may discover, for example, that a group of people reads fewer than average books. It may be because:

- they are thoroughly analytic readers who read to study
- they are slow readers
- they have no money to buy books
- they have less than average interest in reading.

2) Select the most likely explanation

What is the most likely cause of the patterns revealed in the information? The choice which we make from those alternatives suggested in the example above will lead to very different kinds of training events.

3) State the result as an educational need

You are now attempting to state as clearly as you can what you believe that the potential participants need to learn. Some needs will not be educational needs and cannot be met with a training event.

Returning to the example of a broad focus on “public service communications with the mass print media” your analysis could lead to the identification of such needs as the following:

- ✓ Need to explore the values of keeping themselves informed about current events
- ✓ Need to know more about the rest of the world
- ✓ Need to develop skills and attitudes relevant to the critical processing of information in the media about current events
- ✓ Need to develop an interest in comparing the reporting of current events in different newspapers and magazines
- ✓ Need to understand what kind of news about the public service would be of interest to the media
- ✓ Need to know how to get stories about their department into the mass print media
- ✓ Need to understand how damaging miscommunication can be:
    - Need to understand who controls the mass print media.
    - Need for reading glasses.
    - Need to improve reading comprehension
    - Need to increase vocabulary
    - Need to be able to distinguish between news and incidental human interest or sensational articles.

Preparing a purpose

The purpose of an educational event is prepared on the basis of your identification of educational needs. An event will be planned to help the learners fulfill one or possibly more of those needs.
There are three steps in preparing a purpose.

Select the purpose
Consider the range of possible purposes as they grow out of the needs identified and select one of them.

Write the purpose
Once your have selected the purpose, write it out. This is particularly important for both an individual and a team. It necessitates that you really understand what you intend to do, and, in a team, that you have a shared understanding of the purpose.

Test the purpose
Assess the purpose by the following criteria and alter it as necessary.

The purpose is:

- ✓ stated in terms of **change** in knowledge, skill, behaviour, feelings, attitudes, etc.
- ✓ **based upon data**. What data is there to validate the purpose? What information has been overlooked, disallowed or excluded in formulating the purpose? What need does the purpose seek to meet? Is it a real need, a perceived need or both?
- ✓ **significant**. Does the purpose relate to a significant need? How significant is the purpose in relation to other needs, other possible purposes, the overall goals of the programme or organization? How significant is the purpose considered to be by the learner, the trainer, the organization?
- ✓ **specific**: Is the statement of the purpose specific enough to select appropriate learning experiences? Is it specific enough that there is no doubt or ambiguity about the intended learning outcomes? Is it specific enough to make it possible to evaluate the learning outcomes?
- ✓ **achievable**. What information is there to indicate that the learner has the capability or resources to achieve the purpose? What resources will be required of the trainer in order to achieve the purpose? Are these resources available? Does the purpose indicate an area in which change is possible?
- ✓ **measurable**. How will we be able to tell whether or not the purpose has been fulfilled? (Some changes are not directly observable. We may need to indicate what observable changes will be accepted as an indication that the unobservable changes have taken place.)
- ✓ **communicable**. Does the statement of purpose effectively and accurately communicate the intention of the people drafting it? If the purpose is going to be shared with the learners, will it be clear and meaningful to them?
- ✓ expresses **values**. That value assumptions seem to underly the purpose? Are these values explicit or do they need to be made more explicit? What differences are there in the values of the learner, the trainer, the organization which are relevant to or reflected in the purpose? Have these differences been taken into account?

A good, clear purpose is the corner stone of every design of a learning programme.

It takes a lot of time to develop, refine and obtain a common understanding of a purpose. In the long run, the time and energy invested in preparing the purpose will be repaid. Decisions and ideas for the design will come more easily and relevantly.

Purposes, aims, goals, objectives and outcomes

The terminology of training uses a variety of words to describe learning purposes or objectives. Many people use these terms interchangeably.

Generally the words **purpose**, **aim** or **goal** is broad term, covering what it is hoped to achieve in a programme or course.

An **objective** is much more specific and a programme or course may have many specific objectives.
The term **outcome** can be used in both a broad and specific sense. Generally its meaning is close to that of an objective.

Developing learning objectives or outcomes

Once you have identified training needs, you need to think about the outcomes you wish to achieve through training. This is an important activity, because the whole process that follows (not only in this design phase of the training, but also in the implementation phase and eventually in the evaluation phase) depends on the accuracy of this input. By "accuracy" we do not mean right or wrong outcomes, but meaningful and appropriate ones – outcomes that will address and solve the original problem, that is, the gap between what ought to be and what currently is.

An adequate needs analysis will have led to the development of a purpose statement of what the desired result of training should be. However, more specific objectives or outcomes needs to be developed because a statement of purposes is generally too broad to be of much help in the development of a set of procedures and activities that will lead to an effective learning experience. Developing more specific learning objectives helps explain and make more concrete the intention or purpose of the programme and its courses and modules.

What is an outcomes-based approach to training?

An outcomes-based approach is characterised by the following features:

- ✓ an emphasis on the results of learning (outcomes);
- ✓ a focus on learning by doing;
- ✓ a focus on what learners can do as well as learning of content;
- ✓ opportunities for the recognition of prior learning; and
- ✓ an emphasis on the applications of learning in new and different contexts.

Because an outcomes-based curriculum framework emphasises the outcomes of learning rather than prescribing the means or way of learning, in principle learners should be able to attain the learning outcomes through a wide range of means in a variety of contexts. Such an approach is therefore supposed to promote access to competence and accreditation by recognising that there are many different routes to obtaining knowledge and skills, and that the choice of "best route" for an individual will depend on a variety of circumstances, including the experience and learning that have occurred to date.

An outcomes-based approach is also usually characterised by the **clear specifications of the outcomes** to be achieved by a programme or course. These specifications are usually expressed in terms of measurable competences. (See Module 2, pages 25-26 and 31 to 33). Competencies are descriptions of performance which answer such questions as:

- ✓ What do people have to be good at doing to be effective in their job?
- ✓ How does an individual know that she or he is carrying out the job effectively?

Competence can be defined as the application of skills, knowledge and attitudes to tasks or combination of tasks to standards under operational conditions. As such competence does not refer to the unique characteristics of an individual worker, but rather serves as a measure against which individuals may be judged for the purposes of formal or informal evaluation and accreditation. A competency-based approach to training and education will be an integral part of the move towards a broader needs-based and outcomes-based approach to public service training and education.

In understanding an outcomes-based approach to education and training it is important to recognise that the approach is one that **emphasises** outcomes. This does not mean that other aspects of education and training – course content and processes for instance – are to be ignored. All good training is necessarily concerned with outcomes.

A Taxonomy of Learning Outcomes

In the 1950s Benjamin Bloom and associates published influential taxonomies of educational objectives in both the cognitive and affective domains. These taxonomies have remained a significant influence on competency and outcomes-based education and were found particularly useful for the design of assessment as they draw attention to a hierarchy of cognitive skills levels that need to be assessed in different ways. Recently Bloom's taxonomy underwent a major review and was revised by Anderson and seven other associates. They produced a new two-dimensional table, known simply as **The Taxonomy Table** (reproduced on the following pages). The two dimensions are the cognitive process dimension and the knowledge dimension.

The horizontal **cognitive process dimension** uses the verbs:

Remember; Understand; Apply; Analyse; Evaluate; Create

The vertical **knowledge dimension** consists of four types of knowledge:

Factual; Conceptual; Procedural; Metacognitive

Each cell of the Taxonomy Table represents a different type of intended student learning and the objectives/outcomes placed within the different cells require different instructional approaches and means of assessment. The Taxonomy Table is a useful tool for planning both instruction and assessment and assists in ensuring that there is a strong alignment and connection between the objectives/outcomes, instruction and assessment in the curriculum.

The Taxonomy Table is used as follows:

1. Place all the objectives in a given curriculum, course or course module in the appropriate cells of the Taxonomy Table.
2. Analyse the assessments required for each objective and write the assessments into the appropriate cells.
3. Analyse the major instructional activities and related materials in terms of the
4. Taxonomy Table and write the appropriate instructional activities into the appropriate cells.

At this point in the process, there are some cells that contain one or more objectives, related instructional activities and materials, and appropriate assessments. Blank cells need to be examined to see whether important objectives and instructional and assessment activities have been omitted from the course.

The Knowledge dimension	The Cognitive process dimension					
	1. Remember	2. Understand	3. Apply	4. Analyse	5. Evaluate	6. Create
	Recognising	Interpreting	Executing	Differentiating	Checking	Generating
	Recalling	Exemplifying	Implementing	Organising	Critiquing	Planning
		Classifying		Attributing		Producing
		Summarising				
		Inferring				
		Comparing				
		Explaining				
A. Factual knowledge						
Aa. Knowledge of terminology						
Ab. Knowledge of specific details and elements						
B. Conceptual knowledge						
Ba. Knowledge of classifications and categories						
Bb. Knowledge of principles and generalisations						
Bc. Knowledge of theories, models and structures						
C. Procedural knowledge						
Ca. Knowledge of subject-specific skills and algorithms						
Cb. Knowledge of subject-specific techniques and methods						
Cc. Knowledge of criteria for determining when to use appropriate procedures						
D. Meta-cognitive knowledge						
Da. Strategic knowledge						
Db. Knowledge about cognitive tasks, including appropriate contextual and conditional knowledge						
Dc. Self-knowledge						

The Cognitive Process Dimension

Categories & Cognitive Processes	Alternative names	Definitions and examples
1. Remember – retrieve relevant knowledge from long-term memory		
1.1 Recognising	Identifying	Locating knowledge in long-term memory that is consistent with presented material
1.2 Recalling	Retrieving	Retrieving relevant knowledge from long-term memory
2. Understand – construct meaning from instructional messages, including oral, written and graphic communication		
2.1 Interpreting	Clarifying, paraphrasing, representing, translating	Changing from one form of representation (e.g. numerical) to another (e.g. verbal)
2.2 Exemplifying	Illustrating, instantiating	Finding a specific example or illustration of a concept or principle
2.3 Classifying	Categorising, subsuming	Determining that something belongs to a category
2.4 Summarising	Abstracting, generalising	Abstracting a general theme or major points
2.5 Inferring	Concluding, extrapolating, interpolating, predicting	Drawing a logical conclusion from presented information
2.6 Comparing	Contrasting, mapping, matching	Detecting correspondences between two ideas, objects, and the like
2.7 Explaining	Constructing models	Constructing a cause-and-effect model of a system
3. Apply – carry out or use a procedure in a given situation		
3.1 Executing	Carrying out	Applying a procedure to a familiar task
3.2 Implementing	Using	Applying a procedure to an unfamiliar task
4. Analyse – break material into its constituent parts and determine how the parts relate to one another and to an overall structure or purpose		
4.1 Differentiating	Discriminating, distinguishing, focusing, selecting	Distinguishing relevant from irrelevant parts or important from unimportant parts of presented material
4.2 Organising	Finding coherence, integrating, outlining, parsing, structuring	Determining how elements fit or function within a structure
4.3 Attributing	Deconstructing	Determine a point of view, bias, values, or intent underlying presented material.

5. Evaluate – make judgements based on criteria and standards		
5.1 Checking	Coordinating, detecting, monitoring, testing	Detecting inconsistencies or fallacies within a process or product; determining whether a process or product has internal consistency; detecting the effectiveness of a procedure as it is being implemented
5.2 Critiquing	Judging	Detecting inconsistencies between a product and external criteria; determining whether a product has external consistency; detecting the appropriateness of a procedure for a given problem
6. Create – put elements together to form a coherent or functional whole; reorganize elements into a new pattern or structure		
6.1 Generating	Hypothesising	Coming up with alternative hypotheses based on criteria
6.2 Planning	Designing	Devising a procedure for accomplishing some task
6.3 Producing	Constructing	Inventing a product

The Knowledge Dimension

Major types and subtypes	Examples
A. Factual knowledge – the basic elements students must know to be acquainted with a discipline or solve problems in it	
Aa. Knowledge of terminology	Technical vocabulary, symbols
Ab. Knowledge of specific details and elements	Major organisational resources, reliable sources of information
B. Conceptual knowledge – the inter-relationships among the basic elements within a larger structure that enable them to function together	
Ba. Knowledge of classifications and categories	Forms of business ownership, taxonomic organisation of department
Bb. Knowledge of principles and generalisations	Theories of development, ecological organisation
C. Procedural knowledge – how to do something, methods of inquiry, and criteria for using skills, algorithms, techniques and methods	
Ca. Knowledge of subject-specific skills and algorithms	Skills used in planning drawings, whole-number division algorithm
Cb. Knowledge of subject-specific techniques and methods	Interviewing techniques, scientific method
Cc. Knowledge of criteria for determining when to use appropriate procedures	Criteria used to judge the feasibility of using a particular method to estimate costs
D. Metacognitive knowledge – knowledge of cognition in general as well as awareness and knowledge of one's own cognition	
Da. Strategic knowledge	Knowledge of outlining as a means of capturing the structure of a unit of subject matter in a text book, knowledge of the use of heuristics
Db. Knowledge about cognitive tasks, including appropriate contextual and conditional knowledge	Knowledge of the types of tests particular trainers administer, knowledge of the cognitive demands of different tasks
Dc. Self-knowledge	Knowledge that mathematics is a personal weakness, but writing reports is a strength; awareness of one's own knowledge level

Source: Anderson, L.W., and Krathwohl (Eds). (2001). *A taxonomy for learning, teaching, and assessing: A revision of Bloom's Taxonomy of Educational Objectives*. New York: Longman

Determining learning outcomes in the context of outcomes-based education and national qualification frameworks

Increasingly, training providers are being required to move towards a demand-driven and outcomes-based approach to their work. The move towards an outcomes-based approach to public service training and education will be influenced by current developments of National Qualifications Frameworks in African countries.

Outcomes-based training and standards

The clear specification of outcomes is often done in relation to **standards**. Essentially standards are officially recognised sets of outcome specifications that, when achieved, can enable the learner to gain some kind of recognition or certification. A standard, then, is a registered statement of desired education and training outcomes and its associated assessment criteria together with with administrative and other information as specified in the regulations

Standards are normally expressed as:

- ✓ A set of performance criteria which are observable, measurable and assessable;
- ✓ A desired outcome of the competence.

This does not imply, of course, that formal whole qualifications that are not standards-based will no longer be used as criteria for recruitment or promotion. For many positions within the public service, the possession of appropriate qualifications and/or experience will continue to be essential. In many countries in the world standards based courses and certification are found mainly in the vocational field but not in schooling or higher education.

One of the major incentives to use standards is that the learning outcomes of particular courses and qualifications are publicly visible and this makes for ease of comparing what competencies applicants for posts possess across sectoral and national boundaries.

Understanding the terminology of standards

Different countries as well as international bodies use a variety of termonology in relation to standards. However, all standards tend to have a similar format and basic vocabulary.
The example of terminology I am going to present here is that used by the South African Qualifications Authority (SAQA). The South African Qualifications Authority Act (Act No. 58 of 1995) defines unit standards as the:

- ✓ **registered statements** of desired education and training outcomes and their **associated assessment criteria**, describing the quality of the expected performance, together with administrative and other **information** specified in the National Standards Body regulations .

The purpose of a unit standard is to provide guidance to the:

- **Assessor** as to the evidence that must be gathered during assessment
- **Learner** as to the learning outcomes that must be achieved
- **Provider** and/or materials designer as to the learning materials or learning experiences to be prepared to assist learners in reaching competence.

In other words, a standard is an end-statement of the achievement of a certain competence, as well as being a building block for possible qualifications.
Note that the South African terminology calls registered standards "unit" standards with the sense that this standard is the smallest unit that can be given credit towards some qualification.

The SAQA format for a unit standard is as follows. A unit standard should consist of::

1. a title (and a unit standard number)
2. a level on the NQF
3. the credit attached to the unit standard
4. the field and sub-field of the unit standard
5. the purpose of the unit standard
6. learning assumed to be in place before the unit standard is commenced
7. the specific outcomes to be assessed
8. the assessment criteria
9. the range statements as a general guide for the scope, context and level being used for the unit standard, and
10. a 'notes' category which must include the critical cross-field outcomes supported by the unit standard; references to essential embedded knowledge ; and may include other supplementary information on the unit standard.

Parts of a Unit Standard

1. Unit standard title

Form:

- The title of the unit standard is unique

That is, the title is different from any other title registered on the NQF.

- The title provides a concise yet comprehensive and pointed indication of the contents of the unit standard.
- The title contains a maximum of 100 characters including spaces and punctuation.

2. Unit standard level

- The level assigned to the unit standard is appropriate in terms of the complexity of learning required to achieve the standard (as described in SAQA's Level Descriptors).
- The level is appropriate in relation to the learning pathway/s within which the unit standard is located.

Note: Fundamental or Core standards in particular may form part of many different learning pathways.

3. Credit attached to the unit standard

The definition of a credit is that 1 credit = 10 notional (assumed) hours of learning.

- The credit assignment reflects the average length of time the average learner might take to complete the learning leading to the achievement of the standard.

4. Field and sub-field of the unit standard

- Unit standards must be located within the sub-field and organising field (Agriculture and nature conservation/ Culture and arts/ Business, commerce and management studies/ Communication studies and language/ Education, training and development/ Manufacturing, engineering and technology/ Human and social studies/ Law, military science and security/ Health sciences and social services/ Physical, mathematical, computer and life sciences/ Services/ Physical planning and construction).
- Where there is more than one sub-field or organising field to which the standard might apply, this must be clearly indicated and justified, either here or in the brief of the Standards Generating Body that generated the standard.

5. Purpose of the unit standard

The format of entries under the heading Purpose follow on from the statement:

'Persons credited with this unit standard are able to...'

The *Purpose* of a unit standard includes its specific outcomes together with a concise statement of the contextualised purpose of the unit standard and what its usage is intended to achieve for:

the individual

– the field or sub-field

– social and economic transformation

- ✓ These entries are phrased as:
- ✓ **Verb + object + modifying phrase(s) (if required)**
- ✓ The purpose statement succinctly captures what the learner will know and be able to do on the achievement of the unit standard.
- ✓ The sub-outcome entries are 'bulleted' for easy reading purposes.

6. Learning assumed to be in place

- There is a clear relationship between the credit value of the standard and the learning assumptions. [This is the learning assumed to be in place if the learning required to achieve the standard is to be completed in the assigned credit time]
- The statement captures and reflects the knowledge, skill and understanding 'building blocks' which are assumed to be in place and which support the learning towards the achievement of the unit standard under consideration.

7. Specific Outcomes

- The format of entries under the heading Specific Outcomes follows on from the statement:

"Persons credited with this unit standard are able to: "

and these entries are phrased as:

Verb + noun + modifying phrase(s)'

Examples:

'Analyse and determine remedial action for continuous production process problems'
'Describing how information technology can be integrated into adult basic education and training'

'Analyse remedial action for ...'

'Determine the ...'

- There are **usually** between 4 and 6 specific outcomes. [More than six **may** indicate that there is more than one purpose that the standard is trying to address. Fewer than four **may** indicate that the purpose of the unit standard is too narrow].
- The specific outcomes together reflect and capture the purpose of the unit standard in ways that are measurable and verifiable.
- The specific outcome statements focus on *competence outcomes* and avoid describing specific procedures or methods used in the demonstration of competence.
- This ensures that unit standards:
  – have broad and inclusive applicability
  – avoid frequent review and overhaul because of procedural or methodological shifts in tendencies focus on competence outcomes for learning and performance, not descriptions of tasks or jobs
- The specific outcomes avoid evaluative statements where possible. [Statements reflecting the quality of performance are located in the assessment criteria].

8. Assessment criteria

- The format of entries under the heading Assessment criteria follow on from the statement:

We will know that you are competent to... [insert specific outcome] **if or when...**
[insert assessment criterion]

- Where there is a product, the assessable or measurable criteria for the product may include:
  - accuracy
  - finish / presentation
  - completeness (written information)
  - legibility (written information)
  - clarity (written / spoken information)
  - availability for use / location

- Where work organisation / work role is critical the assessable or measurable criteria for the way work is carried out may include:
    - time / speed / rate
    - schedule
    - procedures involving processes or methods
    - cost effectiveness
    - user specifications or needs
    - optimisation of resources
    - health and safety
    - hygiene
    - confidentiality / security
    - dress / appearance
    - language and behaviour
    - creation and maintenance of effective relationships
    -
- The criterion statement sets the guidelines for developing particular assessment tasks at learning programme or services level rather than reflecting check lists for one or more assessment instruments.
- The specific outcome statements focus on competence outcomes and avoid describing specific procedures or methods used in the demonstration of competence.The specific outcomes avoid evaluative statements where possible.
- The criteria capture the requirements for fair, valid and reliable assessment procedures that make use of tools and methods appropriate to the organising field, sub-field, level, category and the unit standard being registered.
- The assessment criteria capture the underlying and embedded knowledge base that allows the learner to reflect achievement of the unit standard (through the reflective and repetitive application of that knowledge, skill, ability and value achievement within a range of contexts).
- The assessment criteria must be sufficiently transparent to ensure ease of understanding across a range of learning providers, learning services and learners.

9. Range statements

- The range statements relate directly to specific outcomes, assessment criteria or even the standard.

  Note: Not all specific outcomes or assessment criteria require range statements.

- There must be a clear relationship between range statements, the specific outcomes, the purpose of the unit standard, and the assessment criteria delineated for the unit standard.

10. Notes

- This category contains:
- General Notes
- Critical cross-field outcomes as well as
- Embedded knowledge.

Embedded Knowledge:

- The format of entries follows on from the statements:
- I/Learners can understand and explain...
- I/Learners can apply...

and these entries are phrased as
Noun + modifying phrase(s)

- Where there is an embedded knowledge section it comprises a statement of the knowledge base required for competent performance and achievement of the unit standard, representing what the learner has to understand and be able to explain in the area (sub-field) at the particular level.
- The embedded knowledge statement includes demonstrations of knowledge of the classificatory systems operating in the area and at the level of the unit standard.
- The assessment criteria must be sufficiently transparent to ensure ease of understanding across a range of learning providers, learning services and learners.

Examples:
'Integration of information technology and adult basic education and training'
'Understanding of the Linnaean classificatory system in the identification of plants and animals'.

Critical Cross-Field Outcomes:

- Critical Cross-Field Outcomes are in a 'matrix' format that indicates how each outcome is addressed in the standard. The matrix captures the relationship of the purpose, specific outcomes, and embedded knowledge to the critical cross-field outcomes.
- The Critical Cross-Field Outcomes are the following:
  - identifying and solving problems in which responses display that responsible decisions using critical and creative thinking have been made working effectively with others as a member of a team, group, organisation, community

- organising and managing oneself and one's activities responsibly and effectively
- collecting, analysing, organising and critically evaluating information
- communicating effectively using visual, mathematical and/or language skills in the modes of oral and/or written persuasion

- using science and technology effectively and critically, showing responsibility towards the environment and health of others
- demonstrating an understanding of the world as a set of related systems by recognising that problem-solving contexts do not exist in isolation
- contributing to the full personal development of each learner and the social and economic development of the society at large, by making it the underlying intention of any programme of learning to make an individual aware of the importance of:
  - reflecting on and exploring a variety of strategies to learn more effectively;
  - participating as responsible citizens in the life of local, national and global communities;
  - being culturally and aesthetically sensitive across a range of social contexts;
  - exploring education and career opportunities;
  - developing entrepreneurial opportunities

General Notes:

- The *general notes* act as a range statement for the whole standard.

They include:

- definitions of terms
- legislation and regulations
- general information of value to assessors and learning provider.

You can examine a large number of Unit Standards in this format on the SAQA website at: http://www.saqa.org.za

Design of the Learning Programme

Well written outcomes suggest assessment strategies

As is obvious from what is said about the the formulation of outcomes and standards, to a large extent, such formulation helps the trainer in deciding on the assessment strategy. Well written outcome specify what it is to be assessed and may well prescribe various forms of assessment. For course design this is particularly useful as in the designer works backwards to prepare instruction that prepares the learner for the assessment exercises to come.

Writing outcomes

Let us continue to take as an example for our discussion the competencies you developed for a trainer during your work on Module 2 on training needs assessment. You have revised some of these outcomes by doing the previous activity and you now know what they were meant to achieve.

This approach has a different emphasis to a more content focussed approach to instruction where learners are meant to remember, know, believe or understand the prescribed material. Outcomes-based learning puts the focus on what learners can actually do or demonstrate with what they remember, know, believe and understand.

In terms of this outcomes-driven approach, outcomes need to be formulated in accordance with the actions or demonstration process required from the learning experiences. Thus, in formulating learning outcomes for your programme or course, you as the trainer have to use observable action words such as “describe”, “apply”, “design”, “produce” and so on. These are specific verbs, rather than vaguer terms such as “know” and “understand” (even though you do sometimes have to use them too!)..

Hence there are three requirements of a suitable outcome:

- An outcome needs to include a **verb** or “do” word. This will indicate the type of learning activity that will take place. This verb must indicate behaviour that can be observed and measured. Examples of these type of verbs are: “develop” (a business plan), “analyse” (a case study), “compile” (a budget), “formulate” (training needs), “build” (a wall), etc.

- An outcome also needs to include a **noun**. The noun indicates the object of the verb. From the above-mentioned examples the following will serve as nouns: “a business plan”, “a case study”, “a budget”, “training needs” and “a wall”. It is therefore not sufficient to expect learners only to develop, analyse, compile, formulate or build. There has to be an object that is linked to these verbs.
- Thirdly, an outcome must also include a **qualifier** that indicates the scope, standard or method through which something is done. Let us take the building of a wall as an example: after completion of the training programme the trainees will be able to “build” (verb) a “wall” (noun) “according to the relevant municipal regulations” (qualifier). We can also take the issue of training needs assessment as an example to learn about how to formulate outcomes: after studying the training needs assessment part of the training cycle, you must be able to formulate (verb) training needs (noun) based on the discrepancy or gap experienced in the specific work place (qualifier).

A trainer can even add more qualifiers by indicating:

- How the trainer will assess the outcomes
- How the learner will demonstrate the outcomes
- What learning methods will accompany the learning experience
- What administrative details have to be complied with.

The following is an example of a learning outcome that satisfies the requirements of outcomes as stated above: Compile a draft outline of a Work Place Skills Plan for a small business of 50 employees according to the requirements of the Skills Development Act and the Skills Development Levies Act.

“Compile” – verb
“A workplace skills plan” – noun phrase
“According to the requirements of …” – qualifier

Values and attitudes built into outcomes

There is one more vital aspect of an outcome that we need to mention. It is the issue of values and attitudes that need to be included in the outcomes. Thus far in our discussion we have mainly concentrated on the knowledge and skills aspect of training outcomes. Learners do need to gain knowledge through training (e.g.: the bricklayer needs to know how bricks are made and what amounts of sand, water and cement it takes to mix top quality cement mix for building). Learners also need to acquire skills through training (the bricklayer needs to lay bricks in a straight line).

When one adds the dimension of values and attitudes in one’s outcomes the whole issue of learning becomes even more personal and individualised. By this we means that the employee starts thinking about (he or she reflects on) his or her abilities and also about the job at a higher level than previously. Let us take the example of the bricklayer again to demonstrate this point.

A bricklayer, who knows everything involved in his or her craft, and who can do the job at a high standard, can even achieve a higher level of ability, which may include a value system of creating beauty through this craft. Attitudes that complement this value system may include self-confidence, pride and a feeling of achievement in doing this job. Values and attitudes operate at a higher level of development than knowing and doing.

One needs, however, to recognise the limitations of outcome specifications in relation to values and attitudes. Skills can usually be demonstrated, knowledge and understanding tested in some way, but demonstrating an inner disposition of the mind may be difficult.

Planning the steps in a course and selecting the content

Unless training is based on carefully planned content, the success of the training programme will be at risk. As a trainer you will often come across other terms that are used, often inaccurately, to refer to content, such as "syllabus" and "curriculum" to indicate what has to be learnt in a training programme. These two terms are often used interchangeably though a syllabus is a list or outline of content whereas curriculum is a broader term referring to the whole the whole course including its syllabus and the coursecontent and the way and sequence it is taught and assessed.

"Content" refers to the subject matter and material that is to be learnt by the trainees, together with the different ways in which the trainer will convey it to the learners.

Selecting the content of a training programme is a vital procedure and can contribute to the success of such a programme. A programme designer (a role that you as a trainer will often play) normally has to rely on several sources from which to select the programme content. The relevant or applicable content then needs to be arranged in a specific sequence in order to achieve your outcomes. (Remember that this content must have a direct relationship with the outcomes you have formulated.)

Let us discuss these two activities connected with content or programme material, that is the **selecting** and **sequencing** of content).

There are a number of factors that influence a training practitioner's selection of relevant training content. These factors will also influence the way the content is presented to the learners. The factors that influence content selection include the following:

The subject or learning area

Each subject or learning area has its own characteristic content, special vocabulary and concepts. The same applies to areas within an organisation, such as sales or service training (with the emphasis on delivery), human relations (with the emphasis on interpersonal relations) or management (with the emphasis on processes and structures).

The type of learners

Learners who will learn your programme content differ from each other. It is impossible to know exactly how each learner learns. There are, however, aspects of these learners that can be considered in the selection of programme content. This includes the learners' culture and cultural differences within a group of learners, as well as language ability, which is their ability to understand the language of instruction and whether they can express themselves in that language. Learners' learning styles also influence both the selection and the presentation of the content of the programme. What do you think the effect of the issue of language will be on your selection of content for the trainers training programme? – Will you select content with technical language?

Have you thought about their level of schooling? Your prior development of a Learner profile will assist in this.

The competence and strengths of the trainer(s)

The ability of the facilitators of learning also has to be taken into consideration when selecting content. Let us assume that you as a trainer are skilled in computer-based instruction. Your skill and knowledge can thus be put to good use in selecting material that can be learnt through this method of instruction. When a trainer is an expert in his or her field, he or she is the right person to select the content for a specific programme. If, however, you feel that you are not an expert in the field in which you have to train employees, find an expert to help you select the relevant content.

The time available and resources available

Some content and methods of instruction simply will not be suitable if time is not sufficient. Often trainers have to make compromises in their selection of content and processes and between desirable content and exercises and what is possible in the time allowed.
The basic rule in all content and process selection is – will this content or this activity or practice actually be effective in the learning meeting the outcomes of the course (given whatever constraints exist in the learning environment). Other content and processes may be nice to have but need to be see as such, extras, and often,as the saying has it: "More is less!"

Sources in which content can be found

The content of a training programme cannot simply be plucked out the air. A trainer needs to investigate relevant sources to find the content. The primary source (or first source to look into) is of course job data. Job date include job analysis reports, competency lists and performance work cards. It is useful to use a trainee's job description as the point of departure. The reason is that a job description consists primarily of a series of job outcomes, that is, what an employee is expected to know and do. Can you see how this comment takes us back to where the training originated, namely the job description? This is where the gap or training need, as highlighted by the job description, between what an employee ought to do and what is actually done, originated.

Other documents that can assist the trainer in finding appropriate content for the programme include:

- technical and operator manuals
- standard operating procedures
- standard reference books
- textbooks to be found in libraries organisation and function manuals

In this age of information technology, one can also easily find useful and appropriate information on the Internet.

Guidelines to select relevant sources

In your investigation into these sources (e.g. manuals, reports, job descriptions and the Internet) you have to ask yourself two questions:

- Is this source directly related to the trainees' job and performance requirements? (Or put in another way, would it be inappropriate to include content that does not apply to the specific job that the trainees will do?)

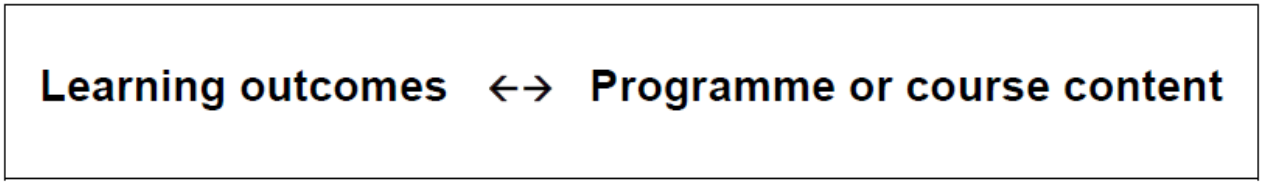
A useful checklist to use when selecting content is by asking yourself the following question:
Is the information from this source (or the content that I wish to include in the programme)

- Essential (absolutely necessary to reach the outcome)
- Helpful (adding some value to the programme, like examples or case studies)
- Peripheral (not really essential or helpful, but nice to have and something that will increase the performance level of trainees, like a discussion given by some expert in the field)

Unrelated (that which has no relevance to the programme outcomes)

Learning outcomes also determine the selection of content

We always have to keep in mind the fact that the selection of content for our programme should be largely determined by the learning outcomes we have formulated. The specific content should help achieve the desired outcomes. It is in fact a matter of designing backwards, starting from the end result or outcomes.



This simple diagram attempts to show you that the **outcomes** you formulate for your training programme will directly influence the learning content that you select to achieve those outcomes. You will notice that the arrow indicates movement from the outcomes to the learning **content**. Too often trainers first decide on the content of the programme and then decide on the effect (outcome) this will have on the trainees. Outcomes-based education has turned around this traditional way of doing it.

The arrow between the outcomes and the content moves in both directions. This means that learning outcomes influence content and that content is based on learning outcomes. This touches on a fundamental aspect of outcomes-based learning, namely that of learner-centredness. In outcomes-based learning the focus is on the learner learning, and not the trainer training. Outcomes therefore describe the result of learning, and the content is the vehicle to help assure that learning takes place and that outcomes are met. For this reason the content selection process is determined by the outcomes.

The following example will demonstrate how this works:

- **training need** = not able to make a garment (like a dress) according to a specific measurement taken from a commercial pattern.
- **outcome** = after training this worker, she or he will be able to make (verb) garments (noun) from patterns (qualifier)
- **content** = material on how to interpret a pattern, different types of patterns, how to measure with a measuring tape, and so on

Sequencing the content of a training programme

It is impossible to convey to your trainees everything they need to know and to all at once. The trainer needs to organise and sequence the content of the training programme. Proper sequencing of content can make a significant difference to the efficiency and effectiveness of your learners' learning experience.

There are quite a number of benefits involved in proper sequencing the training content. This will undoubtedly motivate the trainer not to neglect this aspect of training. The benefits include the following:

It helps learners to make the transition from one learning experience to the next. Let me illustrate this point by taking this topic of the module as an example. You as a learner would have become very confused if there was no sequence to the material in this and previous topics. Let us assume that I, the trainer mixed it all up and started discussing content selection, then jumped to learner profiles, without even indicating to you, the learner, what I was doing. After providing some information or assessement, I then returned to indformation and activities on outcomes, and then returned to information on needs assessment. Can you imagine the mixed-up learning experiences you would have felt, with the resulting frustration, confusion and feeling of being totally lost.	**It ensures that the prerequisite skills and knowledge are acquired before new ones are introduced.** In the content of this topic it is necessary to learn about needs assessment first before one can be confronted with outcomes, and later, the selection of course content. The first is a prerequisite for the second and the third. **It breaks a whole lot of information into more digestable chunks**

Various ways to sequence content

There are various ways you can sequence your learning content as well as the learning experience as a whole. We will touch on a few of these.

Sequences for content and processes	
Whole-to-part	Learners are first shown the whole or complete model or procedure (often with a diagram or graphic) and then instructed around the parts thereof. This type of sequencing can also be done by means of an advance organisers, which is a preview of the content to come that making use of existing knowledge.
General-to-specific	A similar sequence is General to Specific Training starts with an overview of the topic and gradually works towards the specifics or detail. Sometimes called deductive (from a general law explain the details)
Part-to-whole	The separate parts of information are given and then the learner is shown how they fir together to form a whole. This is much like the approach one used to complete a jigsaw puzzle.
Specific-to-general	First the detail and then eventually the big picture. Sometimes called inductive (from specific examples build up a generalization or law)
Concrete-to-abstract	Here a course starts with simple, observable, concrete learning experiences that are not open to much interpretation. Gradually the learners are exposed to more complex and abstract experiences. Similar to Specific to General
Known-to-unknown	This starts with the material with which the learners are familiar and to which the new knowledge can be attached. Gradually the programme proceeds to material that is totally new.
Unknown-to-known	The learners are initially bombarded with new information and skills in order to arouse their interest and desire to know more. Sometimes new information is presented first and then explained by means of an example from everyday life (something with which the learners are familiar).

Step-by-step	Here instruction is sequenced around each step of a procedure or process. An example would be instruction on how to use the Internet. First step: log on to a provider; second step: identify key words or phrases; step 3: do a search, and so on. This sequence also applies to programme content aimed at learners being able to assemble equipment. Certain skills tarinin requires basic founadtional skills to be learned first before other skills, which make use of them, can be taught.
Chronological	Useful in telling a story and obviously used much in the teaching of history.

In practice trainers often mix the sequencing.

Look at this module and try and determine which sequences are used:

Step by step - The Manual as a whole follows a logical sequence for the development of implementation of a course or programme, as does this Module. The content and activities have been selected accordingly.

Whole to part - First we gave you an introduction and some graphic and checklist presentations of course design in the Introduction to this Module on pages 9 to 13.

Then we explore each aspect course planning and design in greater detail.

Can you see how a trainer can mix a variety of content sequencing techniques?
The purpose here is to create a learning experience through which outcomes can be achieved.
Generally it is sensible to go from Known to Unknown and where possible to go step by step.
On the issue of whether to go from general to specific or specific to general it is known that different learners respond variably to these sequences.

A good plan is to merge them by:

- An introductory general overview
- Attention to detail that then
- Builds up into a richer general picture or generalisation or theory or law
- The following can serve as handy guidelines to use when you are sequencing the content of one of your training programmes in future:
- Place tasks and information that are easy to learn early in the sequence (this is much the same as known-to-unknown sequencing discussed above).

Introduce broad concepts, principles and technical terms that have an application throughout the course early in the sequence.

- Place the application of skills, concepts and principles close to the point where they are introduced (it is this piece of advice that is followed when it comes to activities in this topic; what is the use of you doing all the activities only once you have worked through all the material, that is, right at the end of this topic).
- Place previously learnt knowledge and skills just before new knowledge and skills (this is the reason for ending one learning experience with a summary or concluding remarks before moving on to a new learning experience).
- Provide for practice and review of skills and knowledge (this is the aim of all the activities you have to do throughout this topic, namely to build your skills and knowledge base).
- Place complex knowledge and skills later in the sequence (this corresponds to the concrete-to-abstract sequencing).

Note that simply because headings are numbered does not turn non sequential material into a genuine step by step sequence. Use numbering with caution.

Determining content with a training programme is not just about what is to be learnt, but also how it will be learnt. We therefore come to the next two learning experiences that still deal with designing a training programme, namely that of selection of instructional strategies and selection of instructional media.

Planning the teaching/ instruction/ facilitation and assessment on the course

Adopting a training approach or strategy

The broad strategy that you adopt must obviously be one that organisation, trainers and participants will be comfortable with. This will partly depend on the reigning beliefs held by trainers at the time and on the background of everybody involved. Thus academics from a university will tend to run a course very differently from trainers in industry. Participants will also have their own ideas on what they think is "proper" training. Consideration will have to be given to how participatory the training will be. Theories of learning will also influence the approach chosen and the nature of the outcomes will determine whether the course has very fixed or open outcomes. Thus, for example the process of a technical skills training course will be very different from one on adapting to change.

Choosing training activities that fit in with the course content, sequence and timing

Because real learning is active, much of the planning of a course must be about what the learners (rather than the trainer) will be doing. How will trainees be engaged and involved in the course? Even when trainers are teaching or presenting, what will the learners be doing? How will they practice and reinforce their learning of knowledge and skills.

Much of this choice of activities will be influenced by the choice of training methods to be used by the trainers.

Choosing appropriate training methods

Because of the enormous variety of training methods trainers are often perplexed as tio what methods to use and revert to the standard lecture/presentation, discussion and worksheets.

Choosing assessment activities to show that learning has taken place

Because of the too easy identification of assessment with formal written examinations and tests, there is often a failure to recognise that assessment is always an integral and continuous part of any training event.

Even if there is no formal assessment, trainers are constantly making intuitive judgements about whether the participants are learning. In an outcomes-based training approach assessment is consciously foregrounded. Outcomes have to be achieved and assessment is the clear demonstration that the desired outcomes have in fact been achieved. Ideally, assessment activities should be decided on early in the course design process.

Choosing or designing instructional materials

Almost invariably training in the public service uses various forms of materials: as handouts, exercises and workbooks for direct instructional purposes, to provide background or additional information, or as reference material in manuals and guides.

Learning material must be relevant to the subject area and suitable for the target group. An adequately analysed learner profile will assist in the choice or design of the material as will the way in which the course or programme has been conceptualised and designed. and which mode of delivery is being used. Face to face instruction, distance education, working in groups or as individuals, etc. all required different types of materials. What materials lend themselves to the subject content and the sequencing of that content? How will the materials relate to activities and exercises that the participants have to engage in?

As with the most aspects of a programme or cousrse, it is advisable to pilot the learning materials with a representative sample of learners and practitioners and to use the feedback received, to revise and adapt the materials and how they are used. Some examples of training materials are:

- Training programme or course outline
- Timetables
- Self-instructional material
- Course units or modules
- Handouts for specific sessions (short course notes and exercises)
- Workbooks
- Assignment lists
- Readings
- Bibliographies or resource lists
- Lesson plans
- Evaluation forms
- Checklists for course planning
- Report formats and procedures
- Course manuals for learners and/or trainers
- Trainer guides.

Training programme or course outline

An outline of the course or programme needs to be communicated to the learners. Learning sessions must have a schedule, whether a three-hour workshop or a three-week course. The schedule provides the learner with an outline of the course and may help to provide a sense of its purpose, logical sequence, and content. The amount of detail in the programme depends on the preferences of the individual trainer. Daily schedules and topics may be stated, then activities and methods and the duration of each activity.

Timetables

In the restricted sense timetables are essential for telling participants when the starting and ending times are and when there are breaks.

Self-instructional material

Self-instructional material that learners will study on their own should be developed if the learners are required to gain some knowledge beforehand at their own pace, without trainer assistance, in order to bring all learners to the same entry level. This self-study must be genuinely self-instructional in that it must contain within itself clear instructions on how it is to be used and studied. The learners must be clearly informed what the objectives of the material are and be given guidelines and questions to ensure their most effective reading of the text. Learners should also be informed on how to gain assistance where there is material which they do not understand.

Course units or modules

This is study material used within a course. Well designed material with have clearly stated objectives, an easily comprehended structure and layout, a good introductory section, content with examples and exercises, and a conclusion that reviews the information in the unit. Modular material should have the same structure and size.

Handouts

These are ad hoc sets of notes, exercise instructions, written case studies or guidelines for role interpretations, readings, etc. The design of handouts should be done as carefully as when producing course modules.

Workbooks

Workbooks should contain appropriate text to be read and redsponded to, checklists, self-evaluation questionnaires and similar material. A workbook should be an organised and timesaving aid.

Assignment lists

These are often distributed separately from course units as they need to be changed with each group of students. They need to be careful designed to avoid any ambiguity and all students questions anticipated about how the assignments are to be written and delivered.

Readings

These are to provide background, preparatory or follow up information. They need to be carefully chosen for relevance. You may need to get copyright clearance for their use.

Bibliographies or resource lists

These provide lists of readingsor resources for learners. All references must be rigorously done in some standard format. In some case you may need to indicate where resources are held in local departmental libraries or resource centres.

Lesson plans

These can have two uses, as guides for trainers in running courses or worshop sessions or as models for learners so that they can see how a lesson or workshop is planned and documented. It enables them to reflect on how a training lesson they have just experienced was planned to work.

Evaluation forms

In designing evaluation forms, assessment of reaction, learning, behaviour and results must be taken into account. The design should ensure unbiased information; the layout should be neat and easy to understand. A combination of "closed" and "open" questions should be used. Answers to Closed questions may be indicated by a cross on a sliding scale (quantitative information). Open questions provide an opportunity for giving reasons, commentary or suggestions (qualitative information).

Checklists for course planning

These can be used in a variety of ways though it is important that learners actually practice using them rather than simply have them as a possible resource.

Report formats and procedures

These should be clearly written and practice given in their use. They could include reports on course evaluation, learning outcomes achievment, trainer's comments and recommendations.

Course manuals for learners and/or trainers

Manuals can serve a number of functions:

- as a systematic **course of study** for the participant to engage in **during** an actual workshop
- as a systematic **course of study** that the participant will do in his or her own time **after** an introductory workshop
- as a **resource** for the participant (of either **content** material or course or workshop **designs**) that they can use in their training work
- as a **manual that will be used by other trainers** (for example when replicating the course with other participants).

The contents in a trainer guide will differ depending on the assumed competence and experience of the trainers who will use the guide and on the degree to which each iteration of the course is meant to be virtually identical or varied/adapted. Thus Trainer Manuals or Guides can vary from a set of instructions on how to run a thoroughly pre-packaged course complete with all the materials, through a more open ended set of suggestions, through to a compendium of information and resources related to a course.

Usually a Facilitator Guide provides at the very least an overview of the following:

- The learning programme (programme name, programme description, programme purpose and learning assumptions (access requirements))
- The curriculum design (outcomes, delivery strategy/modes, methods, media, learning aids and time frame)
- The learning programme design (learning strategy, workplace experience, time allocation per component, prescribed content/reading, instructional methods, media, aids and equipment)
- The assessment strategy for the learning programme
- Learner support materials (handouts, worksheets, medium, aids, equipment to be used, etc.)
- Learner support information (learner role and responsibilities, and learner support)
- The programme evaluation strategy (programme or course evaluation, facilitator evaluation, and logistics evaluation)

Additional logistical, policy and provider information

Generally a Facilitator Manual/Guide needs to be bundled with a full set of all the learner materials.
Often Trainer Guides develop over time as individual trainers record the implementation of the course or programme. Even if there is no plan to produce a Facilitator Guide as such, there is a need to ensure that a full set of records are kept of the course.

Drafting a Brief for the Development of a Learning Programme

Purpose of a Brief

- The brief should be developed with sufficient background information to ensure the developer understands the learning context.
- A brief provides the developer with insights into the learning design, with explanations for selected learning activities and methodologies
- A brief provides sufficient instructions and guidelines to ensure the developer develops the programme to design specifications
- Instructions and guidelines for the development of learning activities, the development of learning aids, links to other resources, style, formatting, packaging. The brief will also contain broad costing.

Evaluate learning design

Principles of evaluating learning design:

- Evaluation must be conducted in a consistent and systematic manner, including the use of pilots where possible.
- Pilots make use of representative samples of the material, learners and practitioners.
- Evaluation must also be conducted in accordance with the learning organisations' quality assurance requirements for design.
- It is important that evaluation reveals strengths and weaknesses of the drafted learning outcomes, especially for the analysis for learning design, the learning design and the brief for development.
- Opportunities and mechanisms must be in place to improve upon the design. This must be recorded for the intention of future revisions and use.
- In your report it is important to contribute to the improvement of the learning design through offering recommendations. This will ensure that the learning design is in line with the learning need and required outcomes.

Writing an Evaluation Report

Before an evaluation has taken place, there should be discussions with stakeholders to assess their information needs. The evaluation should be conducted with these needs in mind and the learning design report should be written in a manner that is comprehensible to the stakeholder and presents the information they require clearly and effectively.

A good report can also be used as a tool for gaining future support for changes. Once the developer knows what changes are required, based on the evaluation findings, then they can gauge how best to present this information so that suggestions and recommendations receive the support they require.

When writing a report it is important to:

- Keep it as short as possible
- Plan the contents carefully so it is easy to read and understand
- Create a 'presence' for it. Present the report yourself and be sure to follow up with stakeholders once they have had time to read the report.

The language used in the report should be simple and if any technical terms or 'jargon' are mentioned then their meanings should be explained. Additionally, any acronyms should be written out in full the first time they are used with the acronym given afterwards in brackets. Make sure the style, formatting and tense are consistent throughout the document. Vary the layout of the report. Intersperse pictures, graphs or tables where appropriate. Include comments in the report to highlight outcomes or to add weight to conclusions and recommendations.

Once the report has been drafted check the spelling and grammar, then ask a colleague to proofread the report and provide comments.

Cover Page

A cover page can make a report look more professional. It should include the name of the organization conducting the learning design: the full name of the learning programme, with any acronyms given in brackets. Logos of sponsors should be included along with logos of the development organization. The name of the person(s) writing the evaluation report should also be included if this person is someone other than the primary course facilitator.

Using colours in the cover page or even a photograph or illustration can make the report look more interesting.

Table of Contents

A table of contents with page numbers allows stakeholders reading the report to find the information they are most interested in quickly and easily. It also provides a quick reference to the overall content and length of the report.

Acknowledge

If appropriate, the author should extend thanks to those who helped to conduct the evaluation of the learning design.

Executive Summary

This section should include a short summary of the key points and descriptions that have been outlined under the headings in the main report. The following headings could be used as a basis:

- Activity (Pilot)
- Evaluation
- Constraints
- Lessons learned
- Recommendations

Training Goals and Objectives

Name of learning design:

Give the full name of the learning programme evaluated, the name of the organization conducting the training and the name of the funding organizations or sponsors.

Some introductory information can be included in this section, such as the reasons why the learning design was conducted and other contextual information. This can include who has compiled the report, if a number of people were involved, and who the report is written for.

Learning Goals:

Outline the main goals or aims of the learning programme evaluated.

Learning Objectives:

These can be itemized in bullet points or simply written in a paragraph.

Implementation of the Learning Design - Pilot

Timeframe:

Outline the duration of the pilot of the learning designand activities, the dates that the evaluation was conducted.

Stakeholders:

A short background description should be given of the primary stakeholders in the design, evaluation and pilot process, their experience, their positions and place of employment. In many cases the information is contained in the desing plan or brief and this document can be referred to.

Learning ProgrammeContent:

A short description of the learning programme content should be given along with information about the education methodologies and technologies used. The reader should be referred to the learning programme for a more detailed outline of learning content, which could be included as an appendix to the report.

Constraints

In this section a brief description should be given of problems encountered or any factors that impacted on the setup and implementation of the design. This may include barriers to implementation, e.g. facility unable to be used, faulty equipment, and problems that occurred.

Evaluation

This section should include a short description of:

Evaluation methods used:

- What was being evaluated, e.g. outcomes, goals, aims, objectives etc
- The evaluation tools used, e.g. tasks, activities, assessment etc
- The way the tool was administered e.g. questionnaire, test or pilot
- Copies of the questionnaires or evaluation tools used should be included as an appendix.

Data Analysis

This section should include detailed information about how the data was collated and analysed, who was responsible, how the analysis was done, e.g. by hand or using software packages such as statistical packages or systems.

Results of Evaluation

There should be a clear statement about whether the evaluation results indicated that the learning or organisationalobjectives had been met or not. Then a detailed breakdown can be given of aspects of the learning design that had been evaluated.

Qualitative information should be present in a summary. If the qualitative analysis was fairly long but contained valuable information then the complete analysis may be included in the appendix section.

Quantitative findings are best presented as tables or as graphs with a short explanatory note given. Remember that the results should be expressed in a way that is appropriate for the stakeholders who will be reading the reports.

A summary paragraph could be used to identify successes and failures of the training and to explain possible reasons for these.

Lessons Learned

In this section of the report the author should identify lessons learned from the learning design for consideration in future planning, implementing and evaluating or the learning design. These could include aspects of the pilot that require improving, from inputs of training through to outcomes of training.

Recommendations

Recommendations need to be linked to the findings of the evaluation, lessons learned, barriers and constraints. Recommendations should be very specific. Make sure the recommended action is stated clearly, that a specific person or group responsible for implementation of the action is identified and the costs and implications are discussed. Where possible a timetable for implementations should be included.

Further Action

Any activities following on from the session should be outlined in this section.

Cost of Design

Some stakeholders, e.g. the organizational purchasing the training, will be specifically interested in how cost-effective the training has been. If the report is to be purchasing organization then budgetary information should be discussed in this section. This information is best presented in table format.

Conclusions

This section of the report allows the author to present a summary of the main points across in the conclusion section. The case for supporting strategies for implementation of recommendations should be made clear so that stakeholders are aware of their importance.

Disseminating the Report

Once an evaluation of the training has been completed and the report written, the information should be disseminated to the appropriate stakeholders. There are several ways in which the report may be disseminated:

- Arrange a formal presentation with all stakeholders present. This could include a PowerPoint presentation or simply an informal discussion.
- Send out the report to stakeholders then arrange to meet them afterwards to discuss the report.
- Send out the executive summary only and invite comments.
- Conduct an in-service within the training organization.

Instructional Design and Materials Evaluation Form

(Taken from the International Training and Education Centre on HIV)

Organization	
Date	
Reviewer	
Title	
Intended audience	
Summary description	

I. INSTRUCTIONAL DESIGN ELEMENTS

Elements	Value	Score	Note
A. Trainer or facilitator manual with:	1		
1. Planning forms and checklists	1		

2. Needs assessment materials	1		
3. Guidance on teaching approaches and learning principles	1		
4. Summary of key messages/learning	1		
B. Structured curriculum/manual with:	1		
1. Agenda	1		
2. Measurable objectives	1		
3. Combination of affective, didactic, and psychomotor domain objectives	1		
4. Teaching methods appropriate to stated objectives	1		
5. Teaching notes	1		
6. Teaching aids and handouts	1		
7. Active learning exercises	1		
8. Directions, including timeframe for facilitating active learning	1		
9. Additional resource and reference materials	1		
Subtotal	17		

II. CONTENT

Element	Value	Score	Note
A. Accuracy	4		
B. Timeliness or relationship to current guidelines	4		
C. Referenced/evidence based	4		
D. Locally appropriate, adapted to local context	4		
E. Information sequenced from basic to specialized, simple to complex	4		
Subtotal	20		

III. EVALUATION METHODOLOGY

Elements	Value	Score	Note
A. Evaluation guidelines for assessing participant:			
1. Reaction	1		
2. Learning	2		
3. Behavior or outcome	2		
4. Results or impact			
B. Evaluation instrument including:			
1. Participant reaction	1		
2. Participant learning	2		
3. Participant behavior	2		
C. If applicable, marking criteria for grading or scoring assignments	2		
Subtotal	12		
Total Score			

IV. SUMMARY RECOMMENDATIONS

Learning Evaluation Guideline Template

I. INSTRUCTIONAL DESIGN ELEMENTS	
A) Criteria for **Trainer or Facilitator Manual**:	1. Does the manual include **planning forms** and **checklists** that help the trainer prepare for instruction? These may include (but are not limited to): a. Lists or checklists of materials and supplies needed to support instruction. b. Lesson plan forms or templates to help the trainer organize training sessions. 2. Does the manual include **materials for gathering needs assessment data**? Tools for: a. Helping a trainer or planner to determine what participants want to learn and what skills they wish to develop. b. Acquainting a trainer with trainees. c. Guiding the development of learning objectives. d. Deciding what content would be best to cover in a training. e. Needs assessment materials may include: – Questionnaires to be collected at the beginning of a training session. – Suggested questions that trainers can ask in order to elicit information about participants; – Exercises to help participants think about their own objectives for learning; – Pre-tests to determine what participants already know; or – Activities designed to determine what participants already know or what they want to learn. f. If these materials are included, how effective are they for determining the needs of participants? 3. Does the manual provide **guidance on approaches to teaching and principles of adult learning**? In other words, does the manual: a. Discuss effective ways of teaching? b. Provide specific teaching tips? c. Discuss how people learn? d. Provide specific tips to improve learning? 4. Does the manual provide a **summary of key messages** for the overall curriculum? In other words, are the most important issues or messages for the curriculum and/or lesson plan clear?
B)Criteria of a **Structured Curriculum/Manual**:	1. Is a sample course outline or **agenda** with timeframe provided? In other words: a. Is there an overview of what the training session(s) will cover, and in what sequence? b. Does the curriculum provide a clear and organized breakdown of what will be covered in each session? c. If yes, does the outline provide an estimate of how much time to allow for each part of the session? d. If yes, is the sequence logical and easy to understand?

	2. Are **measurable learning objectives** stated for each activity, lesson plan, or unit? a. Learning objectives: – Explain what participants are intended to know, feel or do as a result of exposure to the training content or learning activity. – Indicate the expected outcomes of training and establish accountability between the trainer and the participants. b. Criteria for developing effective learning objectives: –Objectives should be specific, should state specific knowledge, attitudes, or skills that a participant or a group of learners should to able to demonstrate following completion of a training (i.e., workshop) or learning activity (i.e., case study). Examples of learning objectives: "*Upon completion of the module, a learner will demonstrate increased knowledge of the opportunistic infections and co-infections associated with HIV infection by improved scores from pre-test to post-test of at least X points or %."* *"When presented with a patient case, the learner will analyze options for treatment and select a single, correct course of action from among alternatives."* – Objectives should be measurable. It should be possible by observation, testing, problem-solving exercises, or some other means of evaluation to determine whether participants have achieved the anticipated learning objectives. Examples of measurable objectives: *"By the end of this training, the participant will be able to correctly identify three strategies to promote adherence to ARVs in reaction to presentation of a specific patient case study."* *"At least 90% of participants will correctly select five side effects and drug interactions for each key antiretroviral drug."* –Learning objectives describe expectations of knowledge, attitude, or behavior change for the participants. Examples of weak objectives: *"The trainer will provide a lecture series on the spread of HIV among transportation workers."* (This objective describes a teaching strategy, but does not address the learning outcome for participants.) *"The participant will learn about the spread of HIV."* (The verb used in this statement is not measurable or specific.) 3. If learning objectives are stated, do they includea **combination of didactic, affective, and psychomotor domain objectives**?

	a. Do they describe a combination of the following: Increased knowledge, understanding, or ability to analyze or solve problems (didactic learning objectives)? Examples: *"…participants will identify barriers to adherence with universal precautions and suggest solutions for addressing the most common challenges to adherence."* *"…participants will quantify the level of risk associated with perinatal transmission of HIV infection in specific risk conditions."* *"…learners will critically analyze the treatment guidelines recommended by the Ministry of Health."* b. Do they describe changes in participants' attitudes, values, or ability to identify and manage emotions (affective learning objectives)? Examples: *"…participants will be able to explain the value and outcomes of effective patient-provider communication related to palliative care."* *"…learners will reflect upon their own biases and speculate how those might affect their interactions with patients."* *"Following observation of a videotaped provider-patient interview, learner will be able to identify at least 6 skills or actions of the provider that facilitated effective communication and learning with a patient and his/her family."* c. Do learning objectives describe development of skills and/or the ability to apply knowledge to behavior (psychomotor learning objectives)? Examples: *"Measured through observation, a provider will successfully initiate a conversation about risk factors associated with HIV with a young adult."* *"Case reviews by an objective panel of reviewers will indicate effective treatment decisions in at least % of specific cases sampled.* 4. Are **teaching methodsappropriate to the stated objectives**? In other words, is it possible to achieve the learning objectives using the teaching methods specified in the curriculum? a. Didactic learning objectives are usually supported by teaching methods suited to transfer of knowledge. These typically include lecture, lecture with discussion or demonstration (i.e., photographs), case or paper presentations, and panels.

b. Affective learning objectives are usually supported by teaching methods that allow and encourage exploration of feelings, opinions, perceptions, attitudes, and values. Methods can include values clarification and voting exercises, opinion continuums, discussion groups, and reflection.

c. Psychomotor learning objectives are usually supported by teaching methods that promote "practice to mastery" of new skills and behaviors. These methods can include role play, demonstration with observation with feedback, and guided practice.

5. Are **teaching methodsappropriate to the stated objectives**? In other words, is it possible to achieve the learning objectives using the teaching methods specified in the curriculum?
6. Are **teaching notes** provided for each session? These are notes about how to provide instruction. If yes:
    a. Do the teaching notes include important teaching points for the trainer to introduce, discuss, or address?
    b. Do the teaching notes contain useful suggestions about how to present the material?
    c. Are the teaching notes easy to understand and clear

7. Does the curriculum provide **teaching aids and handouts**?

a. Teaching aids could include:
- Overheads, slide presentations, case study slides, and other visual aids;
- Videos, tape recordings, and other electronic media;
- Worksheets for participants, assignment sheets, and other handouts.

b. Criteria for selecting teaching aids: If teaching aids are included in the curriculum:
- Are they appropriate to the reading level of the audience? If in print format, is it appropriate for the literacy level of trainees?
- Are they appropriately formatted? Do visual aids help to clarify or enhance the content of the curriculum?
- Are they free of visual clutter?
- Are the key points evident in the visual layout?
- Would a participant be able to absorb all the information on the teaching aid, or is too much information provided?
- Is the information or material sequenced and presented logically?
- Is the visibility of the teaching aids adequate for the teaching environment? For example, if the curriculum includes overhead transparencies or projected slides, can a participant be expected to read the material easily from any point in the training room? Is the lettering size or image size large enough?
- Are the images clear? Are the images understandable in the cultural context of your classroom? If video or other electronic media are used, are they of sufficient visual

	and audio quality? 7. Does the curriculum include **active learning exercises**? a. Active learning exercises allow participants to engage actively in the learning process. They provide opportunities to clarify, question, apply, and consolidate new knowledge. b. The benefits of using active learning exercises are many. They include improved critical thinking skills, increased retention and transfer of new information, increased motivation, and improved interpersonal skills. c. Examples of active learning exercises: ***Role play**: participants practice new behavior by assuming a character or role, personality or attitude other than their own.* ***Group discussions**: participants discuss issues together and present ideas and opinions to others.* ***Case studies:** participants work individually or in groups to analyze and discuss a real or fictional situation with critical decision points.* ***Interactive storytelling**: participants listen to a story and make appropriate decisions about what should happen at decision points.* ***Task groups**: participants work together to complete a task.* ***Brainstorming**: participants quickly contribute ideas for solving a problem, discuss the ideas together, and eventually revisit the list to refine it by selecting the strongest ideas for continued focus of discussion. Step one in brainstorming occurs for the purpose of generating options (quantity); step two identifies the best ideas from among them (quality).* ***Skills practice**: participants work in small groups to practice new skills.* d. If active learning exercises are included: – Do they reflect and support the learning objectives? – Is the main purpose of the exercise clearly identified in the teaching notes? – Do they include opportunities for discussion, reflection, and debriefing so that participants can easily understand what they were intended to learn from the exercises? – Are they sequenced late enough in the group's development or day's agenda so that participants feel comfortable sharing their personal reflections or emotional reactions with one another? 8. Does the manual provide **directions for facilitating active learning exercises**? In other words, are clear instructions given to help trainers effectively lead these sometimes-challenging exercises? a. Is a timeframe given for each exercise to indicate how much time is needed for achieving the learning

	objectives associated with the exercise? (Active learning exercises generally take longer to implement than didactic teaching methods.) b. Are the learning exercises clearly explained and easy to follow? c. Are suggestions about the facilitation of adult learning provided in order to help trainers lead these exercises with sensitivity and skill? 9. Are **additional resources and reference materials** (or a list of such resources) provided? These might include reading suggestions, photocopied material, website addresses, and contact information for organizations. If they are included, are they appropriate and relevant to the curriculum content?
II. CONTENT REVIEW	
A. Is the content of the curriculum **accurate**? Is the information it contains based upon the best evidence available? **B.** Is the content **timely**? In other words, does it reflect current thinking/research/policy in the content area? Does the content correspond with **current HIV/AIDS guidelines**? **C.** Can the information contained in the content be **referenced**? That is, has the information been previously published by a credible source? Is it based on research findings or current policy? Is the information well-established within the field? **D.** Is the content **appropriate for the local context**? **E.** Is the content presented in a way that **sequences information from basic to specialized and from simple to complex**? That is, does the curriculum begin by presenting the most basic information or concepts first, then progress to increasingly complex information and ideas? Does the sequencing of content enable participants to build upon what they've previously learned?	1. If specific practices or actions are promoted in the curriculum, are they appropriate given the resources available and cultural norms of the local context? 2. Do visual images reflect local realities? 3. Is the content reflective of, sensitive to, and respectful of local cultures? 4. Are the practices and behaviors promoted in the curriculum acceptable within the local culture and community? 5. Is the information conveyed in a culturally appropriate manner? In other words, is the use of language and expression acceptable and understandable to the people who live in this area?
III. EVALUATION METHODOLOGY	
A. Criteria for **Evaluation Guidelines:** Does the curriculum include guidelines for the trainer that explain why and how to conduct evaluation? If yes, do the guidelines include different levels of evaluation? All training curricula should include guidelines and tools for	1. Do evaluation guidelines require measuring participant **reaction** (Level 1): Did participants enjoy the training? a. This level of evaluation helps a trainer gain immediate feedback about participants' experience of being in the course or workshop. This level has little to do with whether the training was successful in educating participants. However, it can provide the trainer with some

evaluation levels1 and 2. Ideally, curricula will include some guidelines for level 3 evaluation activities. Guidelines for evaluation level 4 are rarely included in curricula. Evaluation levels are described below.	insight about why participants may have had difficulty understanding some of the content area of the training. b. This kind of evaluation is usually administered immediately following a training session, but for longer sessions it may be administered at strategic points during the session as well.
	2. Do evaluation guidelines require **measuring learning** (level 2): Did participants learn something from the training?

Self-Assessment

Self-Assessment:

You have come to the end of this module – please take the time to review what you have learnt to date, and conduct a self-assessment against the learning outcomes of this module by following the instructions below:

Rate your understanding of each of the outcomes listed below :

Keys : ✖ - no understanding

● - some idea

✓ - completely comfortable

NO	OUTCOME	SELF RATING		
		✖	●	✓
SO1	Drafting learning outcomes for the programme			
SO2	Conducting analysis for learning design.			
SO3	Designing the learning programme			
SO 4	Drafting a brief for the development of the learning programme			
SO 5	Evaluating learning design			

Chapter 2:
Develop Outcomes Based Learning Programmes

Learning Outcomes:

The following learning outcomes are covered in this module.

- ✓ Planning and prepare for development.
- ✓ Developing learning materials.
- ✓ Developing learning facilitation guidelines.
- ✓ Piloting and evaluate the development.

Outcomes-Based Learning

Before embarking on this section it is essential that you understand the guidelines that frame the education and training activities that take place within the NQF. The NQF system is organised around the notion of learning outcomes, and is largely based on the four principles of outcomes-based education (OBE) (Spady 1992):

- **A clarity of focus on the learning outcomes** that ultimately students need to demonstrate
- **The design-down / build-back approach** to building the curriculum; the curriculum design starts with the abilities, skills, knowledge, attitudes that one ultimately wants students to demonstrate and ensures that the assessment is focussed on what the learner has achieved in relation to these learning outcomes rather than focussed on what was presented in the course of delivery.
- **High expectations**; the expectation must be that learners are able to achieve these outcomes and therefore it is necessary for designers, developers and facilitators to behave and structure what they do in such a way that learners are enabled to achieve these outcomes;
- **Expanded opportunity**; there is a necessity to move beyond the rigid blocks we have created around education e.g. adherence to time frames rather than learning outcomes and adherence to a hierarchical tradition in learning institutions. (Adapted from SAQA documents)

What Is A Learning Programme?

SAQA, the South African Qualifications Authority, distinguishes between a curriculum and a learning programme.

A *curriculum* "refers to all of the teaching and learning opportunities that take place in learning institutions, including:

- purpose and values of the learning
- learning outcomes
- content, activities, methods, media
- teaching, learning strategies
- forms of assessment
- evaluation of delivery, moderation."

(The National Qualifications Framework and Curriculum Development, SAQA, p.6)

Thus, curricula deal with standards setting, learning programme development and delivery, including assessment, and quality assurance of delivery and assessment processes.

A learning programme is “the sequential learning activities associated with curriculum *implementation*, leading to the achievement of a particular qualification or part qualification.” Thus, it is basically the plan for moving the learner towards achieving the outcomes of the curriculum. This plan might include questions such as:

- What sequence would be most effective?
- Should I use examples; casestudies; articles; movies?
- What values are linked to these outcomes?
- What skills does the outcome require?
- How is this outcome linked to the "real" world?
- How do I draw the different parts together?

Qualification vs Learning Programmes

Qualifications and unit standards guide the educator/assessor with regard to what the learner needs to know, do and apply.

A *learning programme* consists of learning and assessment activities derived from the outcomes that make up the qualification. This is what you will develop – *the what, when and how* of the course or qualification that has been designed for learners in the organisation. As architect Le Corbusier is said to have observed, “God is in the details” – while the design provides you with an overall structure and outcomes, you will determine what happens in the classroom by developing learning and assessment activities associated with the outcomes and structure exciting, challenging and innovative learning and assessment experiences for learners.

Plan and Prepare for Development

BRIEF: CUSTOMER SERVICE COURSE			
A. Course outline and purpose			
The broad aim of this course is to develop the customer/client service awareness, knowledge, skills and capabilities of staff, according to the formats, processes and procedures stipulated by the organisation.			
Course Title	**Customer/Client Service Management**		
Designed For	Line Managers, Supervisors and Team Leaders	**Range**	Lecture content may be based on Jones, A.. 1989. *Customer Service Tips*. Johannesburg: Blockhouse. Activities should include role plays and planning exercises. Style should match learner sophistication – see E for guidance.
Delivery Method	Lectures, group discussions and activities	**Activities**	Role plays, planning exercises and any other interactive activities.
Duration	2 days	**Methodology**	Outcomes-based education; adult learning: experiential learning and problem-centred learning.
Assessment	Assessments may take a number of forms:	**Strategy**	Learning of knowledge is paired with experience (tole plays) and problem solving (planning) to increase motivation and stimulate engagement and simulate a work context to facilitate learning.
	Participation in workshops discussions, activities and plenary sessions Individual assignment	**Costing**	Cost of development (including pilot programme and evalutation) should not exceed R85 000.
Venue	In-house		
B. RELEVANT QUALIFICATIONS AND Unit Standards			

The Customer/Client Service Management course has been written to conform with the following unit standards, which are registered with the South African Qualifications Authority. Together the 2 unit standards amount to 16 credits on NQF levels 5 and 6. While the unit standards described form the basis of the course, many other topics and concepts are discussed in a holistic presentation of the course. A broader range of skills is therefore covered.

Unit Standard Number	**Unit Standard Title**	**Specific Outcomes**	NQF Level	No. of Credits
10080	Formulate, design and implement customer service delivery systems and processes	1. Develop and implement an action plan to achieve desired service levels.	6	8
		2. Identify internal and external stakeholders.		
10053	Manage customer requirements and needs and implement action plans	1. Listen to and interpret customer needs.	5	8
		2.Describe action plan.		
		3. Implement action plan to meet customers' needs.		
		4.Track and measure the action plan to its completion.		

C. OBJECTIVES

Upon completing this course, the participants should have achieved the following overall course learning outcomes:

HET Band 6

Foundational Competence	**Practical Competence**	**Reflexive Competence**
Possession of wide-ranging specialised scholastic, professional or technical skills and basic (applied or theoretical) research across a major discipline	Operate in highly variable scholarly, technical, professional contexts within broad parameters for well-defined activities.	Complete accountability for determining and achieving personal and/or group output.
Ability to analyse, evaluate and reformat a	Select from a wide choice of procedures, standard and non-standard and often in non-standard	

wide range of information.	combinations in a major discipline.	
Ability to formulate appropriate responses to resolve both concrete and abstract problems.	Diagnose problems and create appropriate responses to resolve both concrete and abstract problems in a range of technical, professional or management functions.	
Generate ideas by analysing information and concepts at an abstract level.		

CONTENT:

1. Introduction

- Apply Batho Pele principles and address implementation principles
- Link the company vision, mission and values to the principles of customer service
- Explain external client and internal customers and the customer chain
- Customer/client satisfaction versus customer/client delight

2. Roles and responsibilities

- Know the roles and responsibilities of company staff in customer/client service

3. Stakeholder analysis

- Conduct a stakeholder analysis and manage indirect and direct stakeholders effectively
    - Front line staff
    - Moments of truth and client logic
    - Establishing professional relationships
    - Handling complaints and irate clients
        - A client-focused organisation
        - Body language and tone of voice
- Service standards
    - Creating specific and measurable service standards
- Evaluation
    - Self and divisional evaluation
- Implementing a customer/client service action plan

4. Principle process and skills in customer/client service • Explain and apply the principles, processes and skills of effective customer/client management in relation to:	

E. PARTICIPANT'S LEVEL OF COMPETENCY

It is assumed that staff starting to learn towards this standard will have demonstrated competency against unit standards in Contact Centres at NQF Level 4 or equivalent. Learners are expected to have demonstrated competency in language, numeracy, literacy and communication at NQF Level 5 or equivalent. Learners accessing this qualification will also have demonstrated competence against the standards in the National Certificate in Marketing, Marketing Communication or Marketing Research or Marketing Management or Customer Management or equivalent at NQF Level 4.

Based on an analysis of skills gaps in the organisation, a designer will be commissioned to create an appropriate learning programme structure to allow learners to achieve competence in the relevant skills areas. Within the context of the NQA and its provisions for the funding of workplace skills development, this design will probably be based on established unit standards, with their relevant outcomes and assessment criteria. Essentially, the learning programme design will be your brief. Some briefs may be more formal than others, and, although SAQA defines brief as containing a number of explanatory elements, it is possible that your brief may be more or less detailed than the SAQA specification.

Based on a course design such as the one provided above, you will be expected to define the purpose, direction and nature of the learning programme for the purposes of planning for the development of appropriate materials.

Purpose: The objective of the training programme.

Direction: How the learning programme should flow.

Nature: The type of learning programme, defined by its key issues (the teaching methodology it uses, the duration of the course, the content of the course, etc).

Content of a brief

According to SAQA, a brief should provide the developer with:

- sufficient background information to ensure the developer understands the learning context.
- insights into the learning design, with explanations for selected learning activities and methodologies.
- instructions and guidelines to ensure the developer develops the programme to design specifications.

This should include:

Range **-**Instructions and guidelines for the development of learning activities, the development of learning aids, links to other resources, style, formatting, packaging. The brief will also contain broad costings.

***Learning activities* –** what a learner does or is involved in as a means of gaining understanding, knowledge and skills. Examples include participating in role plays, carrying out an investigation, participating in group discussions, completing a worksheet containing questions, tasks and problems.

Facilitation methods –what a facilitator/instructor/trainer/coach does in a learning situation, and how they do it, to ensure learning occurs. Examples include facilitating group processes, lecturing, demonstrating.

Methodologies – approaches that are taken to enable learning to happen, thus informing the learning activities and facilitation methods. Examples include experiential learning, action learning, accelerated learning, problem-centred learning.

Strategies -strategies reveal how the design seeks to meet the needs within the prevailing context and explain the reason for selecting particular methodologies, facilitation methods and learning activities. For example, we may expose learners to an extreme stressful situation in order to help learners develop coping skills.

The designer may be an individual employed by the company, or a contractor outsourced the function of designing learning interventions.

It is important to discuss the brief with the designer in order to ensure that you have a complete and accurate understanding of the design requirements.

The development of material

The development of material is a project that requires specific resources in terms of staff, equipment, budget and information sources. It is also most likely to be limited by time constraints. As such, managing the process of developing materials bears much similarity to other general project management functions – the project must be planned in advance to ensure that it is carried out effectively and efficiently.

In formulating a development plan you should see the total project as a sum of the smaller units and design one or more schedule plans of work, time limits, responsibilities and costs.

Development Stages	**Role/** **Responsibility**	**Time frame**	**Equipment needed** **Key: NEEDED** *Already Secured*	**Budget**
Analyse brief	Steven Botts (ODETP Co-ordinator)	2 – 3 June 2006	*PC*	R71 765.00
Consult with designer	Steven Botts (ODETP Co-ordinator)	5 June 2006	N/A	R0.00
Gather and evaluate resources	Steven Botts (ODETP Co-ordinator)	6 – 8 June 2006	*PC* **BOOKS** **BUSINESS MAGAZINES**	 R500.00 R300.00

Consult with IT support services	Steven Botts (ODETP Co-ordinator)	10 June 2006	N/A	R0.00
Consult with seminar services	Steven Botts (ODETP Co-ordinator)	10 June 2006	N/A	R0.00
Procure and set up 3 computers	VuyoRadebe (IT Manager)	10 June – 10 August 2006	**3 COMPUTERS**	R30 000.00
Consult with materials developer	Steven Botts (ODETP Co-ordinator)	11 June 2006	N/A	R0.00
Develop materials	Ashley Khumalo (Materials Developer)	12 June 2006 – 12 July 2006	N/A	R20 000
Develop learning facilitation guidelines	Ashley Khumalo (Materials Developer)	12 June 2006 – 12 July 2006	N/A	R3 000.00
Commission specialised materials	Steven Botts (ODETP Co-ordinator)	15 July 2006	*PC*	
Produce Posters	Cyril de Villiers (Freelance graphic designer)	16 July 2006 – 1 August 2006	N/A – Contractor will supply	R12 000.00
Invite pilot learners	Steven Botts (ODETP Co-ordinator)	10 August 2006	*Telephone* *PC* *Fax machine*	R15.00
Arrange catering	Joao Pieterse (Catering and Event officer)	15 August 2006	*Telephone* *PC* *Fax machine*	R700.00
Organise facilitator	Steven Botts (ODETP Co-ordinator)	1 August 2006	*Telephone* *PC*	R2 000.00

			Fax machine	
Pilot development	Steven Botts (ODETP Co-ordinator)	1 September 2006	N/A	R0.00
Facilitate pilot development	Bob Jones (Trainer)	1 September 2006	**OVERHEAD PROJECTOR** **POINTER LIGHT**	R3 000 R250
Evaluate pilot development	Steven Botts (ODETP Co-ordinator)	1 September 2006 – 1 December 2006	*Telephone* *PC* *Fax machine*	R0.00
TOTAL COST				**R71 765.00**

Example of a development plan

Development Stages

The stages of a learning development might include:

- Analysing the learning programme designer's brief.
- Consulting with the learning programme designer.
- Gathering and evaluating resources for the development.
- Consulting with support services such as the IT department, the venue if not in-house, or catering companies.
- Procuring equipment.
- Commissioning specialised materials from a contractor (such as posters from a graphic designer)
- Developing materials or commissioning a freelance worker to develop them.
- Developing learning facilitation guidelines.
- Inviting and confirming attendance of the pilot programme learners.
- Making facilitation arrangements for the pilot learning programme.
- Evaluating the pilot development.

Roles and Responsibilities

You will need to identify stakeholders both internal and external to the organisation. These could include:

- IT Department
- Pilot programme learners
- Freelance contractors for materials development
- Pilot programme facilitator
- Administrators working in event management, catering or seminar booking

Equipment

Different equipment may be needed in each of the development stages by each of those holding project responsibilities.

Those preparing the materials might need computers and particular computer programmes, phones, fax machines and a scanner and/or photocopier.

During the testing of the programme, when the development will be tried out on learners, a laptop for PowerPoint presentations, an overhead projector or a slide projector might be necessary. Depending on the size of the group, there might be a need for a microphone. If the learning programme covers technical skills, such as clothing manufacturing, it might be necessary to ensure that there are enough sewing machines or other relevant equipment for learners to practice using.

All these items of equipment must be assessed before hand so that the budget can account for them.

Time Frames

Monitor time through *sequencing* activities.

Ask:

- How long should each activity take?
- What other activities must be completed before each activity takes place?
- When must this activity start and by when must it be completed?
- What is the best sequence for activities to take place?

Costs

Money is a limited resource and all organisational projects are subject to budgets. As a result it is essential that you predict the costs of activities and equipment as accurately as possible, and that you carefully monitor costs as the project continues to ensure that they do not increase.

Activities	**Costing**	**Total**
Preparatory phase • Meeting with the organisation and contract finalisation • Project team establishment and development (workshop) • Detailed work plan development	• 0 • 8 hrs x R250/hr • 24 hrs x R250/hr	8 000.00
Implementation phase • Identification of the job categories and staff members to be assessed • Determination of the existing competencies of all the relevant staff • Determination of the required competencies for proposed restructured jobs • Gap analysis: assessing the difference between the existing and required job competencies • Determination of the possible matches of required and existing competencies • Development of appropriate training and development strategy	• 40 hrs x 5 consultants x R250/hr • 4 weeks x 40 hrs x 5 consultants x R250/hr • 40 hrs x R250 • 40 hrs x 5 consultants x R250/hr • 40 hrs x 5 consultants x R250/hr • 40 hrs x R250/hr	360 000.00
Completion phase • Production of a comprehensive report • Presentation to the organisation	• 80 hrs x R250/hr • 8 hrs x R250/hr	22 000.00
Travel • 5 Regions and 27 areas	• Estimated 27 areas x 400 km (return) x 2 trips x R1.5/km	21 601.50
Accommodation • 5 consultants x 20 days (in five Regions)	• R350/day x 5 pple x 20 days	35 000.00
Project management and administration fee: logistics, meeting and workshop facilitation, stationery, telephone, printing, and unforeseen costs	• 5 % of the budget	23 092

Activities	Costing	Total
Total		**469 693.50**

Example of a budget based on a Skills Audit Proposal for a government department

Corrective Action

Monitor the status of your development plan to ensure that the planned activities and sequences are running smoothly.

When things go wrong, ask:

- Which activities have been completed and which activities have not been completed?
- Why have they not been completed and what must be done to get them back on schedule?
- Has too much money been used?
- Has an activity taken too much time?
- How must the development plan be adjusted to get the timeline back on track?

Learning Resources

Two different kinds of resources will need to be assembled:

1. Learning Resources – resources required for the learners who will eventually follow the learning programme.

2. Resources to Assist Development – resources required by those developing the learning programme.

Resources

Material Resources: Equipment, such as:

- Colour printers for printing the materials once developed
- Graphic design and layout programmes such as Corel Draw, Page Maker or Adobe Acrobat, which will improve the professional appearance of the materials.
- Scanners to allow you to import useful diagrams from information resources into your learning materials.

Human Resources: Knowledge specialists in the organisation

Information Resources: Documents and other materials such as:

- SAQA documents;
- Case studies relevant to the company;
- Academic texts on learning programmes;
- Examples from newspapers and other media;
- Cds;
- Dvds; and
- Videos.

Locating information resources

The time and/or cost implications of locating and accessing various learner and development resources will have to be taken into account.

Book shops – real and digital

Book shops are an obvious source of published material relevant to the development of material, but there are cost implications, especially if there is a need for a large quantity of resources. With online bookshops like amazon.com, bear in mind that many are based overseas, and import duties may be added to the initial cost of your purchases. In addition, consider the lead time necessary to import a book from abroad. It may take two weeks or more to receive the book. Task times must be planned accordingly.

Libraries

Reliable academic texts on strategies for material development can be found in libraries – particularly in university libraries. Possible problems include:

Though simple to access, under-resourced local libraries may not be able to provide sufficient, new, up-to-date sources relevant to the South African context. Books will be able to be borrowed for around two weeks at a time, so time planning will be important.

University libraries, though well stocked with recently published, contextually appropriate information, may be difficult to access if you are not a student. If access is gained, you may not have borrowing rights, and so any relevant content will have to be transcribed – a very time-consuming and therefore expensive process – or photocopied, which implies a cost per page as well as limits in terms of copyright law.

Publication subscriptions

Newspapers and magazines, both available on shop shelves or by mailing list or in house, may be a source of examples to be provided to learners, or might serve to guide the development process. It might be convenient to subscribe to publications that are likely to be relevant to the project, but ensure that subscriptions are limited to a reasonable and manageable amount of reading material for those involved in the development.

Subscriber Databases

Where there is a need for wide access to up-to-date, reliable information, or even a need for access to a large number of newspapers or magazines, a subscription to a resource database might assist.

This is an expensive option which allows materials developers access to the content of thousands of journals etc that may not be available locally.

Company Records

Company records might provide useful examples. If you are developing an HR course, for example, existing company disciplinary codes might be used, or for accounting training, examples of the company's tax submissions might be cited. This is an inexpensive and highly relevant source of content.

The Internet

The internet is often used as the quickest, least time- and cost consuming and most accessible means of collecting information. However, bear in mind the difficulties encountered in determining the reliability of such information. Try to rely only on internationally recognised publication sites (such as www.time.com or www.bbc.co.uk) or the sites of recognised academic, governmental and professional institutions (such as www.oxford.ac.uk or www.saqa.co.za).

Financial resources: funds available to assist your development activities

- This might include public or academic funding of skills development initiatives, which could boost your budget.

Before making a decision on whether and how to use resources you have found, you must assess their appropriacy to the context and objectives of the development.

Depending on the level the programme is pitched at, certain resources will be too advanced or too simple for the targeted learners. In this case, they may be abandoned or adapted to suit the level in question. In addition, if you are using books published in America or England to assist in the development of materials, check that the model of learning used in the resource matches that of the NQF – i.e. outcomes-based learning. You may also want to adapt examples to reflect South African circumstances. Remember that contextual factors such as the role of black economic empowerment in tenders in South Africa may be very different from those in place elsewhere in the world.

Costs

The cost of resources must fit within the approved budget for the development and the time sequencing of the development plan. Because cost can be understood in terms of both time and money, you may have to weigh up the high cost of subscribing to a database versus the constant loss of work time and limited availability implied by using a local library.

Availability

As already mentioned, there are certain constraints on the availability of materials. For example, a certain DVD may be perfect for the purposes of the class, but until copyright permission is secured,

the DVD is not strictly available for use, even if you own a copy. The same is true for all types of resources – be sure to check the copyright conditions. Books may be available from libraries for only a limited period, or might in fact have been taken out by another user.

Resources ordered from abroad may take some time to reach South Africa – and there is always the possibility that they may not arrive at all! All this must be taken into account.

The same applies to human resources – the subject specialist whose knowledge you want to incorporate into the learning programme may be unavailable during the time period you have planned for gathering resources. Material resources also present availability problems at times: the scanner may not be working, or the only graphic design programme might be in use for marketing activities.

Personnel and other support

Support personnel and services should be indicated in the development plan. Support staff will hold certain roles and responsibilities within the overall plan. Obviously, they must be consulted to confirm their ability to participate and assist. Their availability might affect the time frames adopted for each stage of the development process.

You may use more support staff if the competencies exist within your organisation to fulfil all stages of the development process. On the other hand, if your company does not have access to personnel who would write materials or facilitate workshops, or if the company does not have printing/photocopying and binding facilities, it might be necessary to outsource these activities to outside individuals or service providers.

Support staff might include:

- Technical support staff – to check the functioning of hardware, install software and monitor audio-visual equipment used during facilitation
- Administrative staff – there may be departments or individuals dedicated to support tasks such as organising catering and events, booking seminar facilities and equipment, procuring equipment and resources, and printing
- Researchers/writers – to develop the learning programme
- Trainers – to facilitate the learning programme.

Support services could include:

- A catering company to provide refreshments in the boardroom during training
- An external venue or conference centre
- Contract writers
- A contract proof reader
- A printer and binder
- An external training development company – to undertake the bulk of the development activities on your behalf.

Ensure that all support staff and services clearly understand what is expected of them and by when it is expected to be achieved – perhaps provide them with a gantt chart representing their responsibilities within the overall structure of the project. Follow up closer to deadlines to check that each part of the development process is under way as planned and progressing without failure. Always make final checks before the pilot programme that the equipment and resources are ready, that the facilitator is still available, and that the venue is booked and still available.

Look at the table of learning styles below.

Print	Learns well from text, pencil and paper exercises
Visual	Engages with videos, demonstrations, charts etc
Interactive	Learns best from discussion sand Q&A sessions
Aural	Learns best from lectures, tapes and CDs
Tactile	Prefers model building and hands-on activity
Kinaesthetic	Learns well from role playing, physical games and activities

Learner Style Table (Adapted from Erasmus & Van Dyk, 1999)

The theory of learning and thinking styles has generated debate about the importance of alternative methods of delivery, and creativity in the delivery of learning programmes has been linked to motivation and engagement of learners. “Learning preferences and the different ways that people habitually represent, organise and process information arc of immediate relevance to learning and development practitioners because they have an effect on learning and performance in a range of contexts,” reports Sadler-Smith (2005).

According to Darrow (2005), “students learn best when they can demonstrate their knowledge in a variety of ways: in writing, through a visual presentation, as part of a hands-on simulation, or as part of a verbal presentation.” Chandler (2004) supports this assertion. SAQA also emphasises the need to use a variety of different types of activity in the classroom.

Taking account of this body of knowledge, training programmes may require specialised components such as posters, videos or DVDs in order to facilitate meaningful learning. Games have also been shown to increase academic performance (Drea et al, 2005). A cost/benefit analysis should be done to decide whether the cost of commissioning specialised components is justified.

Equipment required

Depending on the nature of the organisation in which you work, it may fall to you to delegate responsibility or take personal responsibility for ensuring the availability, sufficiency and readiness of equipment necessary for the development. Conditions relating to such assurance should be included in your development plan and time-management plan.

PERSONAL RESPONSIBILITY	**DELEGATION**
Ensure equipment is ready	
Physically check that the correct programmes are loaded, that every computer has right equipment (e.g. all computers have a mouse and are loaded with a word processing programme). Test scanner and any document sharing processes.	Check with IT and technical support staff tasked with these areas of responsibility whether everything is in place and has been tested.
Ensure equipment is available	
Check in the first instance whether the company already has all necessary equipment or whether this needs to be procured. Secondly, check that no-one else has planned to use the equipment at the same time as you have.	Consult the IT department about equipment stocks and availability. Check with administrative staff in charge of events and audio-visual equipment that existing equipment has not been booked for use elsewhere.
Ensure equipment is sufficient	
Physically check that you have the right number of computers or other items for the purposes of development or for the purposes of learning (i.e. enough for all learners). If you have acquired computers for a graphic design course, ensure	Consult the IT department about the sufficiency of equipment.

that the memory capacity is sufficient for running the kinds of software that will be covered in the course. If you are planning to write and lay out materials on the same computer, ensure that the software has the capabilities you will need for both aspects of the work.	

Perform these checks in reasonable time before the equipment is to begin being used – there is no use checking on the morning that a class is to be piloted or to discover that software is missing when a staff member arrives to begin writing the programme.

The pilot study of your learning programme will expose any remaining deep-seated issues with equipment, allowing you to address these before the programme is implemented formally.

DEVELOP LEARNING MATERIALS

Learning materials may take a number of forms, and may be intended for use in the learners' materials or for display by the facilitator:

- Theory – the principles or systems of ideas that underlie activities and content.
- Presentation slides – These may be photographic slides for a slide projector, or PowerPoint slides projected using a laptop.
- Learning Activities – Activities designed to make learners perform a series of tasks based on prior recently acquired knowledge (much like the activities in this book).
- Learning Aids – Games and other materials that add interactivity to the learning process.
- Scripts – texts drawn from plays, films or broadcasts.
- Job Aids – materials that the learner can take back to his/her workplace to assist him/her in performing duties. For example, a page of prompts relating to telephone etiquette.
- Charts – graphic representations of content for display or inclusion in workbooks.
- Instructions – lists of instructions assisting the learner in understanding what is expected of him/her in certain activities.
- Guidelines – tips to guide the learner in achieving learning outcomes.

A Framework for Development

Before developing materials, it is essential that you understand each component of the learning design represented in the brief you received.

SAQA suggests that a learning programme be designed using three platforms of analysis, which will ensure that the programme will not omit important learning and assessment (Papier et al, 2005). It will be useful to bear these in mind, particularly if it falls to you to develop the materials in a hands-on manner rather than merely delegating or contracting out such development.

1. Analyse the course/qualification

Accredited qualifications are made up of unit standards that contain specific outcomes.

Look at the various parts of the course – level, purpose, credits, moderation options – and decide what impact these will have on the development of materials. SAQA suggests the following series of questions to help unpack the qualification; fortunately, you will already have considered many of these during the planning process:

1. Who is the qualification aimed at?

2. Briefly, what is the purpose of the qualification?

3. What is the level of the qualification? (Level descriptors are included in the Appendices)

4. What is the access requirement for the qualification?

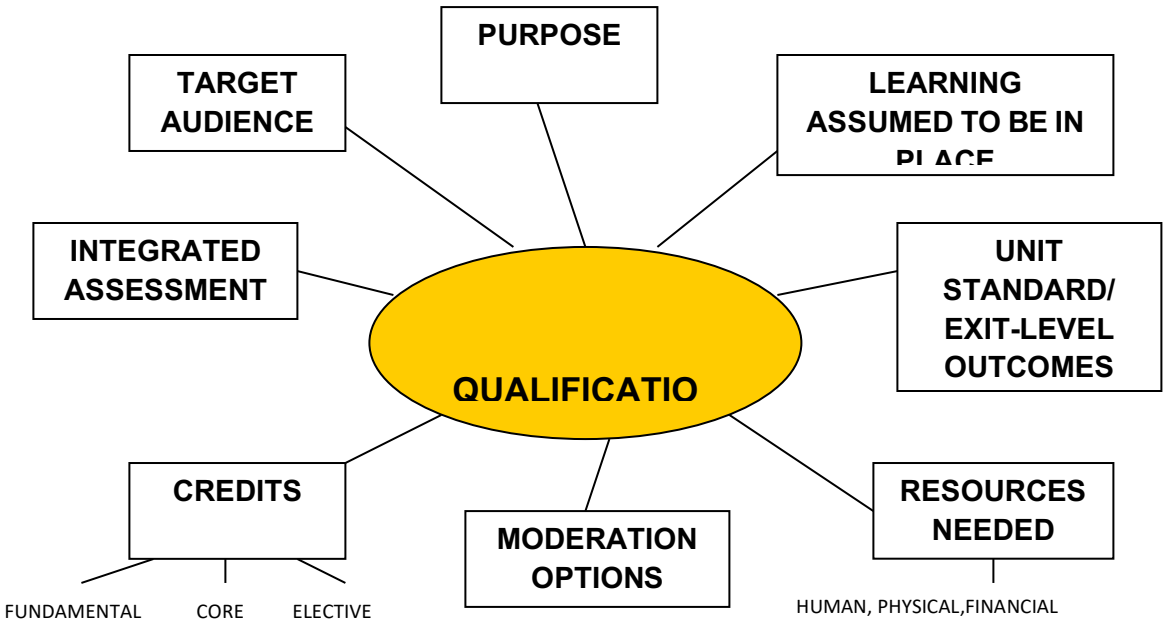
5. How could 'integrated assessment' be done within the context of this qualification?

6. Look at the spread of credits across the Fundamental, Core and Elective categories. Decide on one implication this would have for you.

7. Look at the moderation options and discuss one implication this has for your institution.

8. Use the list of outcomes and assessment criteria to identify what kind of physical resources i.e. equipment, materials, stationery etc. this qualification would require you to have.

(Source: PAPIER ET AL, 2005)

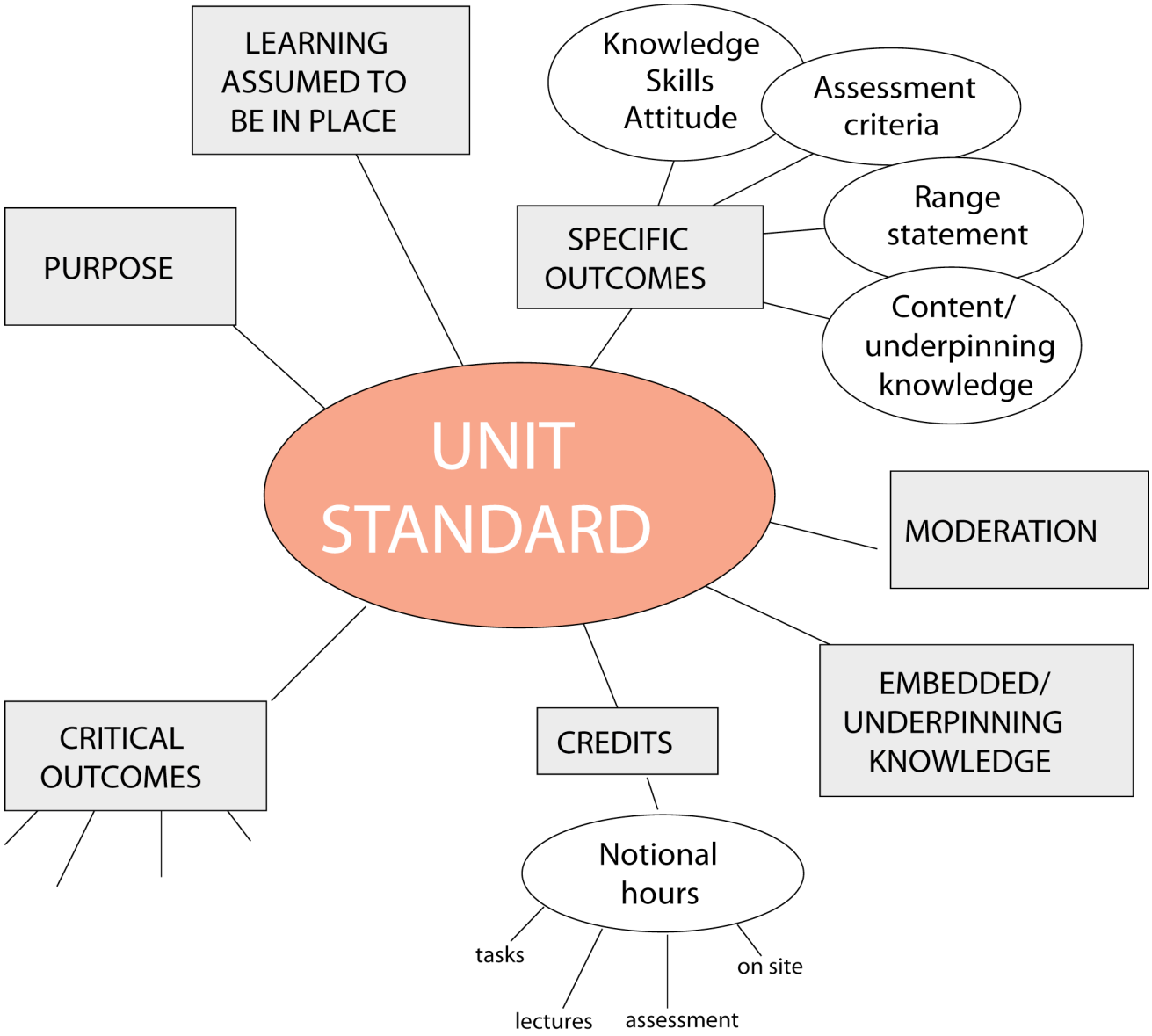


Analysing a qualification

(Source: Papier et al, 2005))

2. Analyse the Unit Standard

UNIT



Analysing a unit standard

(Source: Papier et al, 2005))

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

REGISTERED UNIT STANDARD:

SAQA US ID	**UNIT STANDARD TITLE**		
10080	Formulate, design and implement customer service delivery systems and processes		
SGB NAME	**NSB**	**REGISTERING PROVIDER**	
SGB Marketing	NSB 03-Business, Commerce and Management Studies		
FIELD		**SUBFIELD**	
Business, Commerce and Management Studies		Marketing	
ABET BAND	**UNIT STANDARD TYPE**	**NQF LEVEL**	**CREDITS**
Undefined	Regular	Level 6	8
REGISTRATION STATUS	**REGISTRATION START DATE**	**REGISTRATION END DATE**	**SAQA DECISION NUMBER**
Reregistered	2004-12-02	2007-12-02	SAQA 1657/04

PURPOSE OF THE UNIT STANDARD

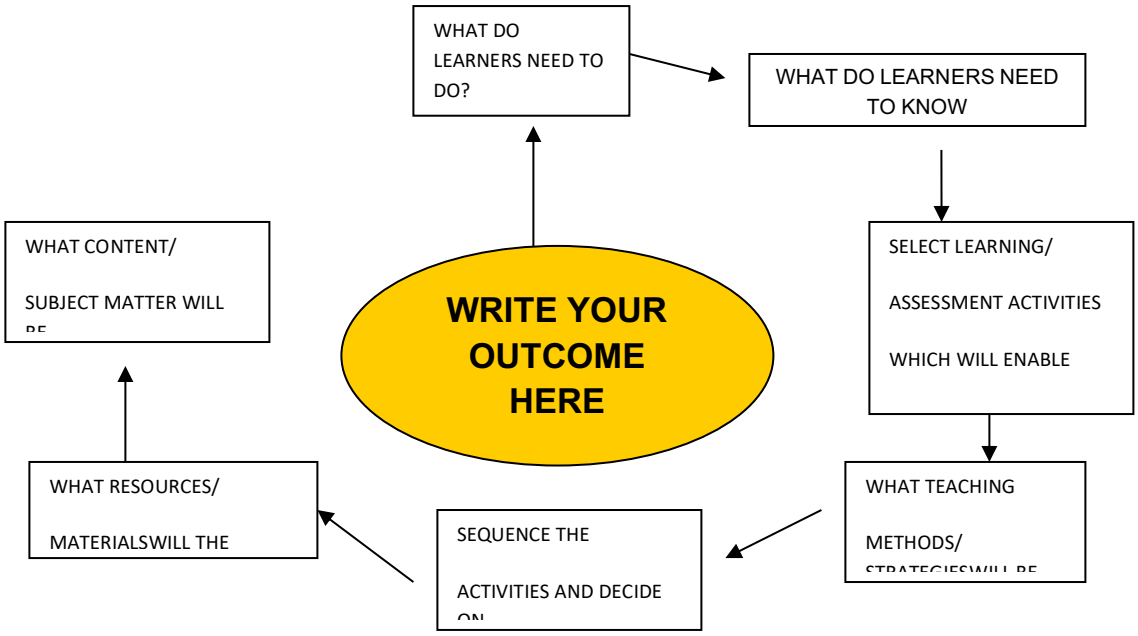
This unit standard forms part of the qualification, National Diploma in Contact Centre Management at NQF Level 5. Learners working towards this unit standard will be learning towards the full qualification, or will be working within a Contact Centre environment, where the acquisition of competence against this standard will add value to learner`s job. This unit standard is intended to enhance the provision of supervision within the Contact Centre industry. The qualifying learner is capable of:

- Developing and implementing an action plan to achieve desired service levels
- Monitoring progress and effectiveness of action plans implemented

LEARNING ASSUMED TO BE IN PLACE AND RECOGNITION OF PRIOR LEARNING

Learners accessing this unit standard or qualification will have demonstrated competency against unit standards in Contact Centres at NQF Level 4 or equivalent. Learners are expected to have demonstrated competency in language, numeracy, literacy and communication at NQF Level 5 or equivalent.

3. Ana



Analysing an outcome

(Source: Papier et al, 2005)

According to SAQA, the following question will assist you in analysing outcomes:

- What does the outcome indicate learners need to know and be able to do?
- What will need to be assessed according to the assessment criteria for this outcome?
- What content/subject matter will be needed by the learner? (check the underpinning knowledge and the content that is implicit in the outcome).
- Identify and select activities that will enable learners to achieve the outcome and meet the assessment criteria
- Select appropriate teaching strategies/methods/approaches which will get learners to the point where they *can produce the evidence of learning* which has been completed.

Activities

- Sequence the activities and decide on the duration of each.
- How many assessment activities would result in the learner producing sufficient evidence to meet the outcome/s?

- Include both *formative* and *summative* assessment activities in your learning programme. While the classroom-based activities included in the learning materials constitute formative assessment, a final assignment, conducted outside the classroom and often in the workplace, will form the summative activity.
- Decide what resources/materials learners will need in order to do the learning and assessment activities. Note these down for inclusion in the facilitator's guide.

Learning activities

Activities should serve as building blocks for the learner, allowing him/her to achieve competence in a specific area within the time restraints of a particular course.

Thus, it is important to ensure that the activities not only follow the sequencing presented in the brief, but also consider the learners needs in their structure and pace.

Logic of structure: Evaluate what information is the most basic and fundamental, and sequence activities from the most foundational to the most abstract, so that the learner can build knowledge stage by stage.

Logic of pace: Evaluate how much time learners of a particular type will need in order to assimilate new information and absorb learning – don't try to cover too much new ground in a single day's worth of material. Also consider, based on the learners' level of literacy and prior knowledge of the subject area, how much time should be given for reading, writing and discussion activities. Each activity should be given time parameters to help guide the facilitator.

Materials need to be appropriate to both the learner and the learning context.

Consider the learner

- Less literate staff members will require materials that make use of more graphics and games than dense written theory.
- Executives with advanced degrees may require a lot more theoretical content. It will be important to ensure that you cover new content that will add to their existing knowledge.
- If learners have special needs, such as being hard of hearing, it will be inappropriate to use recordings, videos or DVDs unless they are subtitled. It might also be important to create more individual activities than group discussions to prevent communication problems.
- Blind learners will require material written in Braille and will benefit from sound recordings.

Consider the learning Context

- Will the training take place in a rural area? If so, there may not be access to DVD players and other electronic equipment. Posters, charts and learning aids will be a better choice.
- What kind of room will the training take place in? If there are windows, are there blinds? If not, the light might be too bright and learners will not be able to see slide projections or DVDs. In such a case, recordings, learning aids and charts will be preferable.
- Will the training area have good ventilation and lighting? If not, learners might get tired more quickly and lose concentration. In this case, you may want to incorporate learning aids that include physical activity to keep learners focused.

Materials must allow the learner to integrate all the skills needed to achieve the outcomes. In other words, all the information and activities should work together so that, upon completing the course, the learner is able to perform the learning outcomes. For all knowledge covered, there should be activities that allow the learner to practice producing the relevant outcomes. To ensure that integration takes place in a computer training course, you could use complementary materials such as:

- A workbook containing theoretical knowledge and computer-based classroom activities.
- PowerPoint slides containing useful graphic displays such as graphs and charts.
- A workplace activity to be undertaken using a job aid, such as a brief guide on basic spreadsheet functions.

Obviously, the learner's integration of knowledge and skills regarding spreadsheet use would be greater using all three of these materials than if the learner was forced to rely only on written information, or was never challenged to apply new skills in a realistic work environment rather than the sheltered classroom environment.

Material requirements

Learning materials should not only promote integration, but should also adhere to adult learning principles and accommodate the special needs of learners.

Promoting Integration

- Materials should encompass foundational, practical and reflexive competence.
- The various independent parts of the material should work together in a coherent and logical way to produce the whole. Separate sections should not be disjointed; there should be a logical flow to assist learners in building on their knowledge.
- Materials should take account of and use learners' existing skills and knowledge.
- Material and activities should be student-centred.

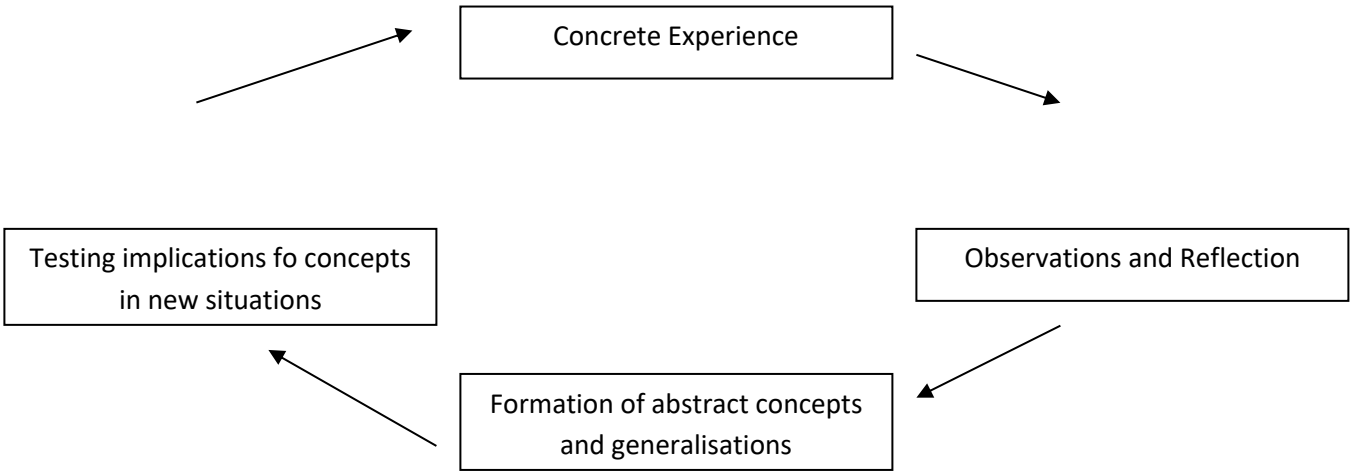
- There should be a connection between teaching contents and real life; theory and practice.
- Encouragement of creative thinking.

Adult Learning Principles

CHARACTERISTIC	CHILD	ADULT
JUSTIFICATION OF CONTENT	TEACHER DETERMINES LEARNING CONTENT	REASON WHY SOMETHING MUST BE LEARNED IS DECIDED BEFOREHAND
LEARNER'S EXPERIENCE	LITTLE OR NO EXPERIENCE	A GREAT DEAL OF HIGH-QUALITY EXPERIENCE
CONCEPT OF LEARNER	DEPENDANT ON TEACHER	PROVIDES OWN DIRECTION
READINESS TO LEARN	READY TO LEARN WHEN INSTRUCTED TO DO SO	READY TO LEARN WHEN NEED IS EXPERIENCED
ORIENTATION OF LEARNING	ACTIVITIES ARE SUBJECT-ORIENTED	ACTIVITIES ARE TASK- OR LIFE-BASED
MOTIVATION TO LEARN	LARGELY EXTRINSIC	LARGELY INTRINSIC
AUTHORITY RELATIONSHIP	TEACHER BEARS ALL RESPONSIBILITY	LEARNER IS INDEPENDENT AND RESPONSIBLE
RESPONSIBILITY	LITTLE OR NO RESPONSIBILITY	CO-RESPONSIBLE

Adult Learning Table (adapted from Erasmus & Van Dyk, 1999)

Adult learning makes use of experiential learning. Look at the model below and reflect on what you have learned through experience in this course.



Kolbs' Learning Cycle

Accommodating those with special needs

Those with hearing and sight impairment, medical conditions and disabilities, or speech and language difficulties, will have special needs that should be accommodated in learning materials.

Depending on their need or level of physical or mental ability, learners with physical or learning disabilities may suffer from self-esteem problems after years of internalising labels of dependence, helplessness, stupidity or incompetence. Developers can assist by accommodating those with special needs by using suitable techniques and strategies to suit their abilities.

In the case of hearing or visual impairments, for example, special needs may translate into social functioning, where learners may struggle to participate fully, which may lead to isolation and negative experiences of learning.

Materials should assist the facilitator in fostering an inclusive learning environment that includes sensitivity and awareness of special needs. Other techniques include: using activities that represent a variety of learning styles, permitting technological devices that assist the learner, providing alternative testing arrangements, extending time allowed for assignments, minimising distractions, asking learners what accommodations they need. (Kerka, 1998)

Level of language

EDITING

- Before editing or having the materials edited, ensure that all stakeholders are satisfied with the content. Remember, if further changes are made to content after editing, it will be necessary to edit all over again in case some new mistakes have arisen.
- If you are editing a piece of writing you have developed, try to have a long break from writing the materials before reading them for editing purposes. This will help you be more objective.
- It is important to have the final document read by someone who has not been involved in producing it. They will be able to see errors more clearly.
- The structure of the document should be correct before the editing begins. Structure is edited through the drafting process.

Accuracy Checklist

- Readers' needs taken into account (e.g. job description, age, literacy/education level, special needs)?
- All information relevant to purpose?
- Any repetition?
- Order logical?
- Information presented clearly?
- Language clear and easy to understand?
- Style formal?
- Tone suited to purpose?
- Any unnecessary words/phrases?
- Grammar/punctuation correct
- Spelling correct?
- Is the text coherent? (the thought behind the text is consistent and moves logically from one point to the next. The text uses suitable vocabulary and uses it consistently.)
- Is the text cohesive? (the text 'sticks together' with the use of grammatical devices such as reference back to prior material and paragraph building prepositions such as 'Further', 'consequently' or 'On the other hand'.)

The sequencing or linking patterns of a training manual are very importance in helping the learner to make sense of information and organise it mentally. Check that materials proceed in a logical order

Learning activities

Outcomes-based training is intended to provide qualifying learners with applied competence - the ability to institute the learning outcomes of a course in the relevant context (in this case, in the workplace). According to SAQA, foundational competence, practical competence and reflexive competence are necessary in order to achieve this.

Foundational competence – understanding what is being done and why it is being done.

Practical competence – a demonstrated ability to do a particular thing.

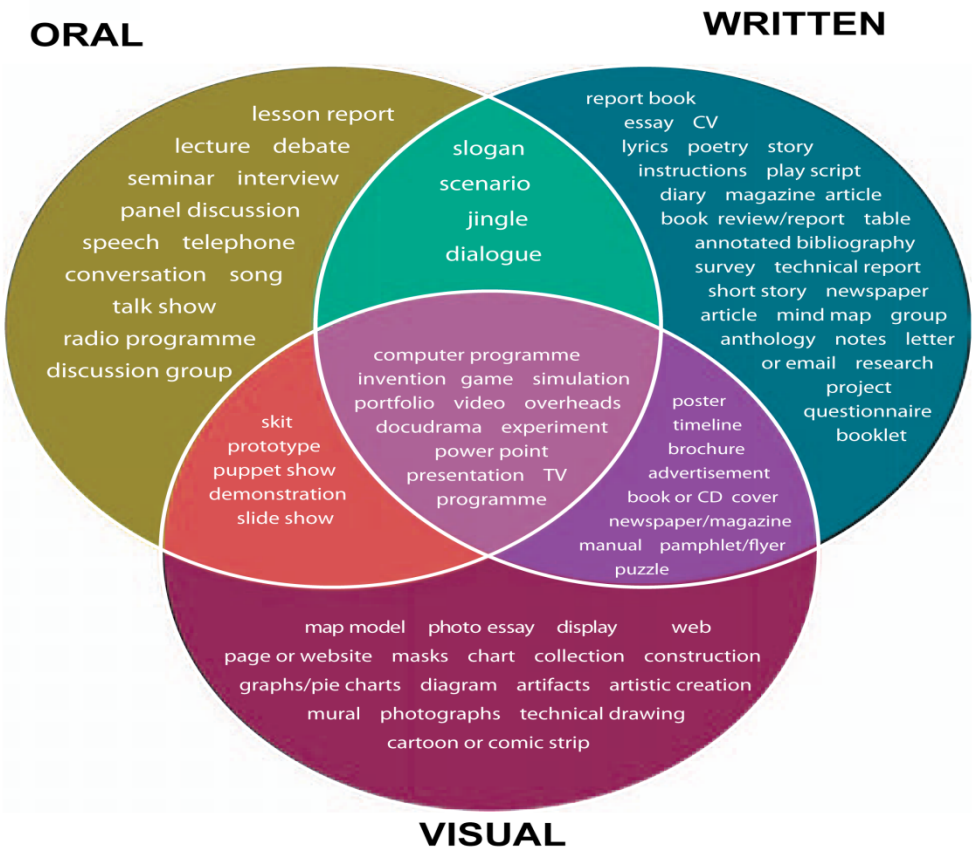
Reflexive competence – a demonstrated ability to integrate understanding with practice so as to learn from the actions and adapt to change and unforeseen circumstances.

Thus, a qualification must address both theory and practice, allowing the integration of action and reflection in a particular context. Erasmus and Van Dyk (1999) provide the following principles to guide the creation of learning activities:

Principle	Explanation
Contiguity	Stimuli requiring a response from the learner must appear as close to the expected response as possible – stimulus and response should occur almost simultaneously.
Exercise	Repetition of a response in the presence of a stimulus. Learners must actively participate and practice their learning in order to cement and improve learning.
Reinforcement	Learning is reinforced if activities are extended – for example if learners are called on to recall existing learning for a new task, if they are involved in planning a task, or if they are provided with feedback about the correctness of their response.
Intellectual skills	Learners must adapt existing knowledge and skills to the learning environment in order to learn new information or skills.
Learning events	These provide the learner with opportunities to use learning strategies, current abilities and recollection.
Learner responsibility	The trainer can only act as a facilitator; the learner must be able to learn independently.
Active Participation	This increases learner motivation and therefore promotes the achievement of learning objectives.

Division of tasks and order of learning	Training taks must be divided into meaningful units that are directly related to the outcomes of the programme. The order in which content is presented should allow learners to easily make sense of content.
Meaningful learning	Learners must understand content; they must not simply learn it by rote or memorisation.
Rate of learning	Learners are more successful if allowed to work at their own pace. Activities should be designed with realistic time frames in mind considering the unique abilities of each learner.
Types of learning and appropriate training processes	Learners do better when instructional methods and activities are based on their ability and learning style.
Setting objectives	The outcome of learning should be clearly indicated and should serve as the basis for assessment.
Motivation	Materials should provide for both intrinsic (student seeks improvement and self-actualization) and extrinsic motivation (e.g. rewards).

Try to incorporate activities from each of the categories in the graphic below (recommended by SAQA), or activities that integrate a number of the categories at the same time. This will ensure that learners are exposed to learning in oral, written and visual formats.



(Adapted from The Handy Easy Learning Plan, Skillsbook for the Transition Years, 1995. Scarborough Board of Education 1996, Scarborough, ON)

(Illustration sourced from SAQA documentation)

In terms of practical competence, learners should be given opportunities to practice not only in the controlled environment of the classroom but also in the 'real world', which challenges them to flexibly apply and re-contextualise their learning and in turn fosters reflexive competence.

Critical cross-field education and training outcomes

The Critical Cross-field Education and Training Outcomes, commonly known as the Critical Outcomes, describe the life-long learning qualities necessary for student development across all subject areas. These are provided to direct the thinking of developers, who are obliged to incorporate all the critical outcomes designed into a particular course or qualification.

SAQA's critical outcomes include:

- Identify and solve problems in which responses display that responsible decisions using critical and creative thinking have been made.
- Work effectively with others as a member of a team, group, organisation, community.
- Organise and manage oneself and one's activities responsibly and effectively.

- Collect, analyse, organise and critically evaluate information.
- Communicate effectively using visual, mathematical and/or language skills in the modes of oral and/or written presentation.
- Use science and technology effectively and critically, showing responsibility towards the environment and health of others.
- Demonstrate an understanding of the world as a set of related systems by recognising that problem-solving contexts do not exist in isolation
- In order to contribute to the full personal development of each learner and the social and economic development of the society at large, it must be the intention underlying any programme of learning to make an individual aware of the importance of:
- Reflecting on and exploring a variety of strategies to learn more effectively;
- Participating as responsible citizens in the life of local, national and
    - global communities;
- Being culturally and aesthetically sensitive across a range of social
    - contexts;
- Exploring education and career opportunities, and
- Developing entrepreneurial opportunities.

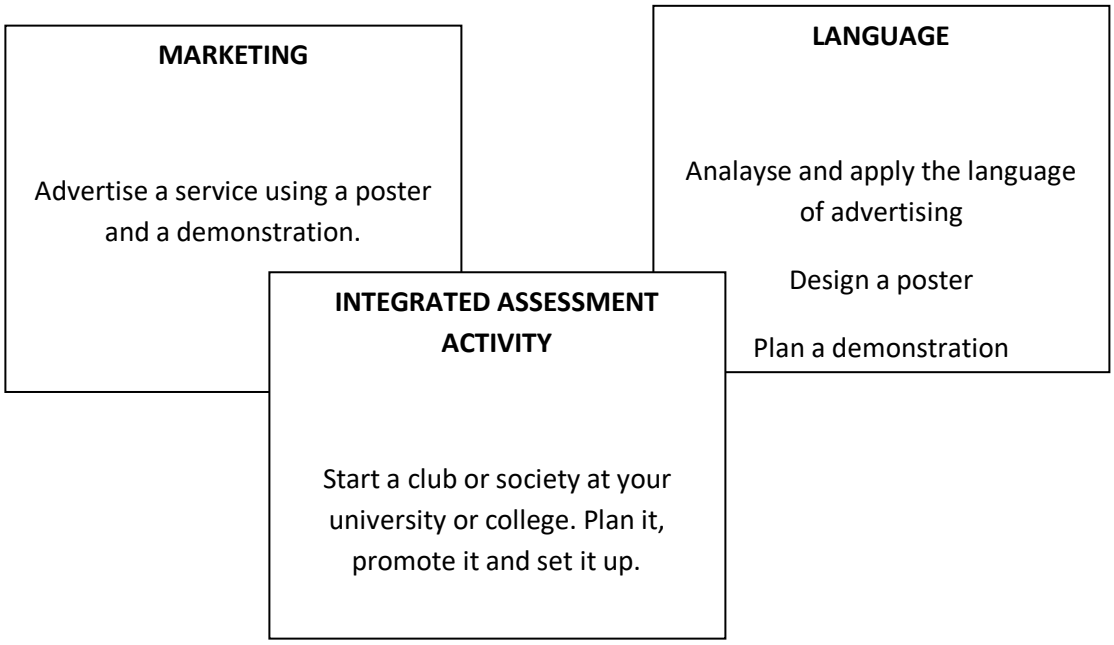
Programme developers need to ensure that the learning programmes accommodate opportunities to develop and assess the critical outcomes, and as such it will be essential to incorporate these as far as possible into the learning activities designed to give learners the opportunity to practice outcomes. SAQA does not prescribe how these outcomes should be incorporated, but the descriptions of the outcomes, and the assessment criteria, which reflect the manner in which the outcomes will be assessed, will provide some guidance.

(NQA 2000 pp 16 -20 The National Qualifications Framework and Curriculum Development)

Integrating outcomes

But when there are so many outcomes and assessment criteria, how does one ensure that activities in the learning programme provide sufficient practical coverage of the subject area? The best answer is to integrate more than one outcome or assessment criterion into a single activity.

Below is an example of one assessment activity being shared by two learning areas in a business administration qualification:



Example of an assessment activity shares by two learning areas (adapted from Papier et al, 2005)

Development and budgetary constraints

We have already covered planning for time and finances, but these aspects also need to be monitored throughout the materials development process. Throughout the development process, adhere strictly to the development plan to ensure that the reality of the process remains in line with the costs and timelines identified initially.

The format and style of your materials should be appropriate to the needs of learners. This is an area that seems unimportant but actually has a significant impact on the reception of your materials.

Format: The layout and appearance of your materials. This incorporates

- White space – the more white space there is around the text in your materials, the easier it is for the learner to read.
- Headings – should be **bold** to guide the learner's eye through the most important points. If you want to draw the learner's attention to something, you could *emphasise* it in *italics* or <u>underline</u> it.
- Typeface – IT IS NOT A GOOD IDEA TO WRITE ALL TEXT IN UPPER CASE, AS IT IS DIFFICULT TO READ. nor should you ignore punctuation by using only lower case. Choose an easy-to-read text style or font. 'Sans-serif' fonts are best as they are simple. Compare the fonts below and observe their effect on readability:

Arial	Times New Roman	Monotype Corsiva
Font Styles Arial is a simple font that is easy to read when even when used in large sections of text.	**Font Styles** Times New Roman appears very dense and makes large sections of text more difficult to read.	**Font Styles** Monotype Corsiva is an attractive text style but is difficult to read is used for large sections of text.

- Text size – While literate readers will be able to cope easily with a size 11 Arial font, for less literate or partially sighted learners, larger type will make reading easier.

- Text style: The way the text is written, for example, with short sentences and simple words for less literate learners, and with longer sentences and more sophisticated words for highly qualified learners. The style of a text depends on the needs of the learner.

Compare these different styles:

To make provision for contingencies, it is recommended that you apply for an overdraft facility on your current account.

We suggest you apply for an overdraft facility for those times when you're broke.

If you do not have money, the bank can lend you money. You must apply for an overdraft facility if you want the bank to lend you money when you have money problems.

QUALITY ASSURANCE

Quality assurance relates to the monitoring of continuous improvement and quality in an organisation. Many organisations have quality management procedures in place, and adhere to a set of quality assurance guidelines. For example, some quality management principles of the Total Quality Management system are:

1. Quality can and must be managed.
2. Everyone has a customer and is a supplier.
3. Processes, not people, are the problem.
4. Every employee is responsible for quality.
5. Problems must be prevented, not just fixed.
6. Quality must be measured.
7. Quality improvements must be continuous.
8. The quality standard is defect-free.
9. Goals are based on requirements, not negotiated.

10. Life cycle costs, not front end costs.
11. Management must be involved and lead.
12. Plan and organise for quality improvement.
13. Develop mutually beneficial supplier relationships

(Source: Hansen)

Some organisations will stipulate more general quality assurance principles that guide behaviour, for example:

- Putting the customer first.
- Identifying quality indicators for all organisational activities.
- Evaluating projects for quality.

Quality Objective	**Method / Plan**	**Measurement Criteria**
Exceed customer expectations on quality	Measure complaints	Number and category of complaints
	Measure compliments	Number and category of compliments
	Measure delegates feedback	% below / achieved / exceeded
	(not meet / meet / exceed expectations)	
Exceed 50% growth target for the financial year	Measure sales	Against target
	Advertising	Measure hit rate to advertising
Reduce average debtors days to less than 40	Measure monthly	Average days / best / worst
	Debtor Clerk training	Improved value of debtors
	MD to negotiate better payment	Improved days outstanding
	terms with top 10 customers	

Example of an Organisational Quality Monitoring System

If your organisation does not specify quality assurance principles, you can draw up your own quality indicators for the materials development project. For example, in the area of format, you might specify:

- Use Arial font size 12 for all body text in learners' books.
- No more than 15 lines of text per paragraph to break text up and add white space.
- All main headings should be bold, upper case, Arial size 16
- All sub-headings should be bold, title case, Arial size 14.

These specifications can be seen as fulfilling the requirement to put the customer first because they will ensure that the format suits the needs of the learner.

DEVELOP LEARNING FACILITATION GUIDELINES

The Facilitator Guide

After completing the learning programme materials, you need to develop learning facilitation guidelines for the course.

Facilitation is the activity of assisting learners in completing a learning programme. In the traditional view of training, a teacher or trainer leads the class, but in outcomes-based education, a facilitator guides the class through the learning materials, providing knowledge and instruction.

Learning facilitation guidelines, then, are guidelines that assist the facilitator in performing his/her job in the class appropriately

CONTENTS

Sample structure of a learning facilitation guide

As you now know, context refers to a range of factors including the objective of the learning development, the profile of target learners and their individual and group needs, and the physical setting in which the learning programme will take place.

Courses are based on learning outcomes, and achievement of these is essential for the learner to be declared competent. As a result, the facilitator needs to be aware of exactly what outcomes the learners are expected to master through completion of the course. Ensure that the learning facilitation guidelines provide clear instructions to the facilitator and specify the kind of support s/he will need to provide.

For example, if students are to be assessed through a written test, the facilitator will have less support responsibilities than if the learners have to submit a thesis or portfolio of evidence. In these cases, learners may need to contact the facilitator frequently with questions and concerns about the task at hand.

While the classroom-based activities included in the learning materials constitute *formative* assessment, a final assignment, usually conducted outside the classroom and often in the workplace, will form the *summative assessment* activity. The summative activity is the assessment that determines whether a learner is competent or not yet competent, so the facilitator who will assess these activities needs to know what instrument will be used to measure the learners' competency in the learning outcomes, and needs to know how to determine whether each learner has reached competence in each assessment criterion.

You could present the specific outcomes and summative assessment details as per the following table. As you can see, the summative assessment field refers the facilitator to the page in the learners' book where the summative assessment is outlined. The table also identifies to the facilitator how many credits the unit standard carries towards the final qualification, and lists the outcomes associated with the unit standard.

Course	Unit Standards	Specific Outcomes	Summative assessment
CUSTOMER SERVICE ON THE ROAD (16 credits)	10053: Manage customer requirements and needs and implement action plans (8 credits)	Listen to and interpret customer needs. Describe action plan. Implement action plan to meet customers' needs. Track and measure the action plan to its completion.	Portfolio of Evidence (POE): Action Plan

Example presentation of learning outcomes and summative assessment details

To assist the facilitator is assessing fairly and correctly, you should include a rubric that summarises the criteria that can be used to measure a learner's work against the relevant outcomes:

Summative Assessment Rubric: US 10053						
Not yet Competent				**Competent**		
Criteria	***1 Inadequate (0-29%)***	***2 Partial 30-39%)***	***3 Adequate (40-49%)***	***4 Satisfactory (50-69%)***	***5 Meritorious (60-69%)***	***6 Outstanding (80-100%)***
Did the writer provide evidence that s/he listened to and interpreted customer needs?	No.	Hardly any evidence.	There is a limited amount of evidence of listening and interpretation.	There is a reasonable amount of evidence of listening and interpretation	There is a good deal of evidence of listening and interpretation	Yes. The POE shows evidence of thorough listening and interpretation
Did the writer describe his/her action plan clearly?	No. The action plan was confused and contradictory	The action plan was poorly expressed	The action plan was adequately expressed but action points were not justified by customer needs	The writer's action plan was clearly expressed	The writer's action plan was clearly expressed and supported by evidence of customer needs	The writer expressed the action plan clearly and strongly and it was supported with evidence of customer needs
Did the writer provide sufficient evidence of implementing the action plan?	No.	The POE contained almost no evidence of implementation.	A few forms of evidence were included.	A number of pieces of evidence were included.	A good POE. 'A number of pieces of evidence covering a range of activities was submitted.	Excellent. All requirements were met
Was the action plan adequately	No – no tracking or measuring	Generally poor. Very little evidence	Fair. A few items of evidence	Quite good. A number of items of	Good. A number and range	Excellent. Thorough coverage of

tracked and measured?	was done.	of tracking or measurement ; or the learner provided evidence only of one of these activities.	demonstrating tracking and measurement were included.	evidence demonstrating tracking and measurement were included.	of tracking and measurement evidence was included.	tracking and measurement was evident in the POE.
Overall impression	Very poor	Poor	Average	Good in most respects	Very good in almost all respects	Excellent in every respect

You may also want to include an assessment methodology that states clearly where marks are to be assigned in relation to formative and summative assessment. For example:

D. ASSESSMENT METHODOLOGIES

Assessments:

- Participation in course discussions, activities and plenary sessions
- Individual workplace assignments

No.	Activity/Exercise	Mark allocation
1.	Participation in course discussions, activities and plenary sessions	30%
2.	Individual assignments	70%

Facilitator guidelines

To facilitate in a manner appropriate to the materials, the facilitator must understand the learning design and the methodology used. *Methodology* is simply the system of methods used for learning. An outcomes-based learning methodology includes learner-centred methods such as interaction, practical application and opportunities for reflection. The traditional teaching methodology uses teacher-centred methods such as lecturing.

Your information on the learning design and methodology will come from the brief and from discussions with the programme designer. You need to pass this information on to the facilitator to ensure that s/he understands the reasons why the materials and activities have been developed the way they have. This will ensure that the facilitator's attitudes to learning and methods of interaction with learners cohere with the principles of the learning methodology used and the strategy of the learning activities.

Strategy refers to the plan used to accomplish a particular long-term aim.Thus, you will show how each activity serves the overall objective and methodology of the learning programme.

Refer back to your development plan to remind yourself what equipment and resources were required for the learning programme. List only the ones relevant to the learning situation, not those that related to the development of the materials.

The facilitator will also need to be made aware of any requirements of the organisation.

Organisational requirements to be included in the facilitation guide might include:

- The time structure of the course in terms of the time the venue opens and closes, the time lunch or any other refreshments are served
- Support - the personnel to be consulted about audio-visual equipment, the location and procedure for using the photocopier, etc.
- Record keeping – there may be a predetermined manner of recording attendance of the course
- Reporting – there may be a need to report back to the human resources department on the successes and failures of the course; there may be course or facilitator assessment forms to be filled out anonymously by learners and submitted to HR by the facilitator
- Quality assurance – the facilitator should be made aware of the quality standards of the organisation and the quality standards set by SAQA

Preparation

There are various aspects of preparation

1. Preparatory reading – the facilitator may be able to inform him/herself and move learning beyond the printed materials by utilising relevant reading material
2. Activity preparation – if there are activities where learners require paper or other equipment, the facilitator must know in advance. Last-minute panics over the absence of computers to carry out an exercise on PowerPoint presentations is highly unprofessional, wastes learners' time, and undermined the authority of the facilitator
3. Contextual preparation – if there are current issues that learners may want to address, or current procedures in the workplace that have a bearing on learning, it will help to inform the facilitator, who may then be able to apply learning to a highly specific and relevant context

FACILITATION: EQUIPMENT, RESOURCES AND REQUIRMENTS

The facilitator must prepare the venue to suit the interactive style of the course. Tables should be grouped to support team work exercises. The following equipment must be set up:

- Data projector and screen (laptop, extension cables, speakers)
- Flip charts and pens (make sure there is enough flip chart paper for all group activities)
- White board and pens

Additional tools required include: Prestik and laser pointer.
Each delegates work station should contain:

- The Regenesys folder (including name plate, registration form and pen)
- The workbook materials
- Water jugs and glasses

Delegates entering the training room must sign the attendance register (to be completed each day of the course).

Delegates should be welcomed to the course. The facilitator must introduce him/herself together with Regenesys (video).

The following initial administrative documentation should then be completed:

- Student registration forms (for Regenesys' records)

Delegates should be made to feel at ease and it is suggested that each delegate be allowed to introduce themselves and briefly explain their workplace function.

Looking at learning challenges – can you add to the table below?

Challenge	**Strategy**
Lack of engagement in learning activities	Use knowledge of class interests to adjust the activity for more relevance
Noise/distractions	Acknowledge the presence of noise and try to resolve it. Report to students when and whether noise will stop. If possible, move outside when concentration is required
Cultural differences in approach and belief	Remain open minded and try to accommodate different views and different practices
Lack of teamwork experience	Create ground rules in plenary before starting the course

Conflicting personal styles	Remain objective and do not take behaviour personally. Try to manage different personal styles within the class so that no-one dominates or is left out
Conflict in expectations	Clarify expectations through activity at start of course
Time overruns	If activities take longer than expected, use your discretion to adapt and change the remaining schedule so that the work is still covered
Content Challenges:	
Content is too advanced for learners	Adjust the activities according to your discretion in order to meet their level of literacy and experience.
Content is perceived as inflamatory or controversial	Encourage an open environment of debate, but emphasise the context-bound nature of activities. Do not allow disputes of opinion circumvent the completion of activities.
Content does not stimulate interest	If the course takes place over several days, gauge learners' interests and bring in alternative content to suit.

Value of guidelines

Preset timeframes can help facilitators to plan the structure of the learning day. But adult learning and outcomes-based learning principles allow for flexibility – as we saw in relation to challenges encountered by facilitators in classrooms, the facilitator will sometimes need to adjust materials to take account of problems that arise in the classroom setting. It is at this time that the facilitator needs guidance as to what the existing timeframes and sequence are, so that sections or activities may be shortened on an informed basis which does not result in the omission of important information that builds into the learning process.

A schedule can be provided to assist the facilitator in planning the day's activities. Also give simple instructions relating to sequencing and time frames, e.g.:

- Unit standard 10080 must precede Unit Standard 10053.

- All specific outcomes must proceed in the order presented in the Unit Standard structure, as each outcome builds the foundation for the next.
- It is not necessary to do all the activities in class. Ensure, however, that at least one activity covering all or most of the outcomes is completed during the classroom session – usually the activities that appear closer to the end of coverage of each specific outcome cover more outcomes. A final activity could be given as an overnight assignment if necessary.
- Where learners take time to engage with activities, try combining sequential activities into a single activity to eliminate 'warm-up' time.

Programme Outline for *Customer Service on the Road*		
Day	**Time**	**Description**
Monday	08h00 – 08h45	Welcome and orientation
	08h45 – 10h00	
	10h00 – 10h15	Tea
	10h15 – 12h15	
	12h15 – 13h00	Lunch
	13h00 – 15h00	
	15h00 – 15h15	Tea
	15h15 – 17h00	
Tuesday	08h00 – 10h00	
	10h00 – 10h15	Tea
	10h15 – 12h15	
	12h15 – 13h00	Lunch
	13h00 – 15h00	
	15h00 – 15h15	Tea
	15h15 – 17h00	

Structuring the learning day

PILOT AND EVALUATE THE DEVELOPMENT

You have now developed a training programme and created a guide for the facilitator. Now it is time to test the results of your development activities.

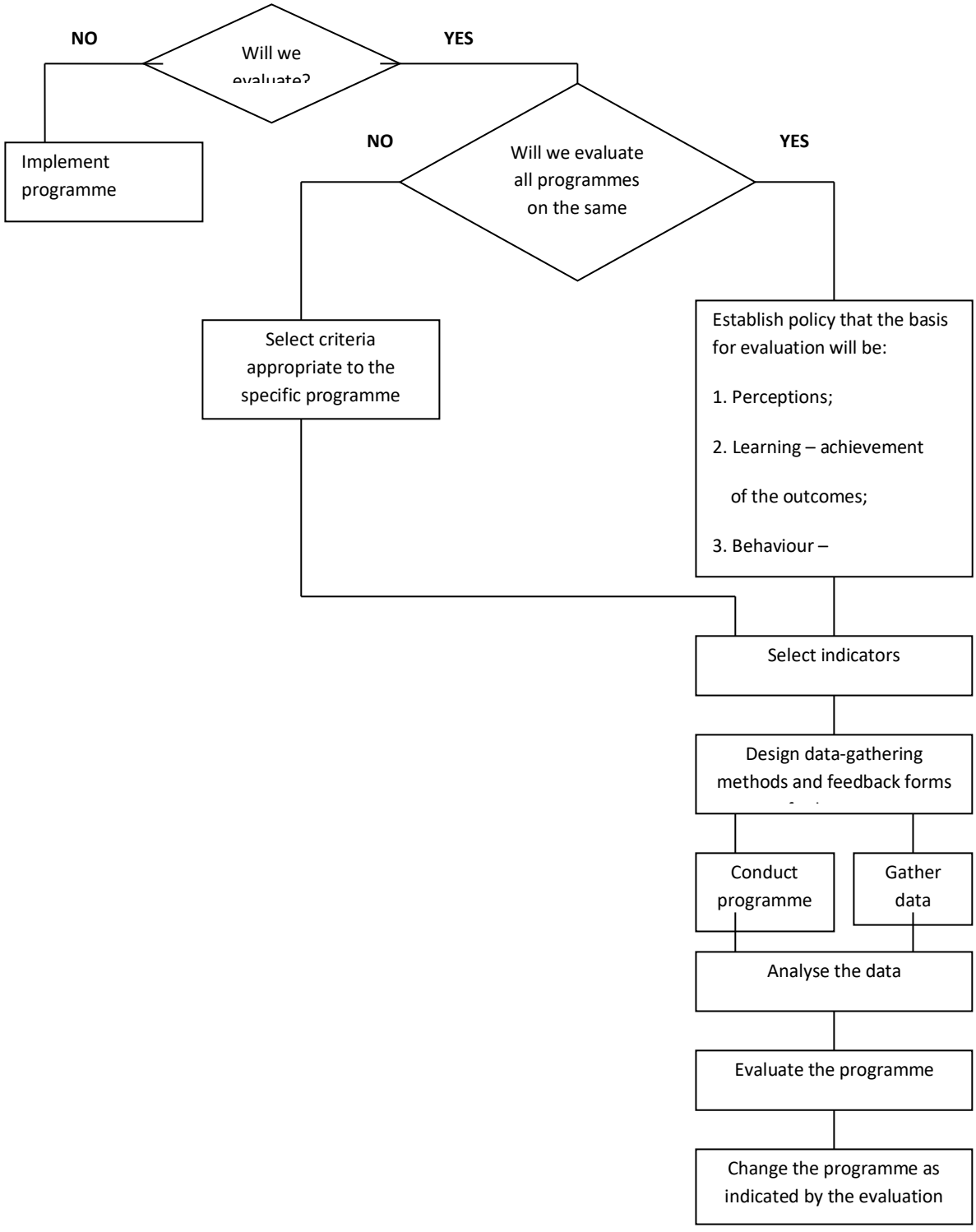
The Pilot Setup

A *pilot study* is an experiment or test that takes place before something is applied to a wider audience. Thus, you undertake a pilot study in order to evaluate its strengths and weaknesses before making a decision about whether to proceed with presenting the programme to all the relevant learners, or whether to make changes to the programme in order to optimise the learning experience.

In order to be representative of the learning context, a pilot training session must take a form as close as possible to the form it would take if it were being implemented formally for the first time. The goal is to evaluate the effectiveness of the course as it has been planned: using the current structure and content, the same activities, the recommended facilitation style, and learners with the same training needs and personal profile as what would be expected from the intended target audience.

Evaluation

The process of evaluation is represented graphically on the following page.



Adapted from Laird's model on the process involved in evaluation of a learning programme

Effective Evaluation

Effective evaluation involves:

Evaluating systematically and consistently

The conditions under which evaluations are undertaken need to be standardised if you want the results to be reliable, and it is necessary to be systematic in your approach.

It is important to think of the evaluation of a development as an evaluation of learning rather than as an evaluation of training, because to be thoroughgoing, evaluation must consider the whole process, from identification of learning needs to application of learning in the actual workplace (Bee, 2000: 42). One of the most essential aspects of evaluating training is understanding what the training is supposed to achieve, and such an understanding will depend (1) on correct identification of learning needs through the needs analysis that preceded the design of the course, and (2) on the design of clear and useful learning objectives addressing these needs. These would appear in the design brief upon which the development of materials is based.

Assuming that the needs analysis and learning-programme design stages were undertaken effectively, it is generally accepted that there are four stages of evaluation (Van Dyk et al, 2001), based on Kirkpatrick's four-level model. These steadily increase in complexity and value (Kirkpatrick, 1996), but due to the increasing difficulty, many organisations ignore all but the first level (McCurry, 1999).

Level 1: Reaction

First, you measure the learners' feelings about various aspects of the learning programme (catering, venue, facilitator, content, activities, etc). Essentially, according to Kirkpatrick (1996), it "is basically a measure of customer satisfaction" (55).

The process of measuring reaction is:

1. Decide what you want to find out
2. Design a form that will quantify reactions – this allows the evaluation instrument to be consistent across all pilot programme learners.
3. Encourage written comments and suggestions
4. Obtain an immediate response rate of 100 percent
5. Seek honest reactions – this can be achieved by maintaining anonymity
6. Decide on acceptable standards
7. Measure reactions against these standards and take appropriate corrective action if necessary.
8. Communicate the reactions to stakeholders such as the facilitator, programme designer, etc. (Kirkpatrick, 1996)

An example of a reaction form is provided in the appendix.

Level 2: Learning

This level measures the knowledge, skills or attitudes acquired, improved or changed through training.

The process of measuring learning is:

1. Test the learners' knowledge, attitudes or skills prior to the pilot session

2. Test again after the session

3. Obtain a response rate of 100 percent

4. Compare the before and after results, bearing in mind the learning outcomes and purpose of the training

5. Take corrective action if necessary (Kirkpatrick, 1996).

Level 3: Behaviour

Level three concerns measuring the extent that learners implement the outcomes of a learning programme by changing their behaviour in the workplace. To measure this 'transfer of training', do the following:

1. Allow a sufficient amount of time to pass after the pilot programme, to allow changes in behaviour to take place
2. Survey or interview one or more of the following stakeholders: trainees, their managers or supervisors, their subordinates, and others who encounter the trainees' workplace behaviour
3. Ensure that you sample an adequate and representative sample. If it is a pilot study, it is likely to be a small group of learners and therefore it is best to measure behaviour on the entire group.
4. Repeat the evaluation over time to check whether the effects of training endure
5. Consider the cost of evaluation versus the benefits.

Note: Managers often see training as a cost rather than an investment; it is important to involve them so that they are aware of and can participate in the process of evaluating the return on investment that training offers. Buy-in from managers will help the company perceive the value of training. They are also an invaluable resource because they are very close to subordinates' behaviour. (Bee, 2000; McCurry, 1999)

Level 4: Results

This level concerns the final results of training – its effect on the bottom line of the company; on productivity; profits; costs; staff turnover and quality. Results of this kind may be difficult to measure at pilot programme level, because some will only be seen after a significant amount of time has passed. For example, customer service training may increase sales over a long period, which may

result in higher profits. The correlation between customer service training and the eventual profits will be difficult to measure, however. The process for measuring results is the same as that for behaviour, but it may be necessary to accept that there won't be incontrovertible proof (Kirkpatrick, 1996).

Evaluating according to organisational quality assurance requirements

Evaluations must fall in line with overall organisational quality principles.

Evaluating to Expose Strengths and Weaknesses

Your evaluation instrument must be valid – asking the right questions – in order to get the right answers about the programme's strengths and weaknesses. In order to know what to measure, you must ensure that the indicators against which the programme is measured are correct. Once again, these can be taken from the learning outcomes of the programme if these were properly conceived.

Identifying methods for improving the learning programme

Based on the different levels of evaluation, record your observations about the efficacy of the programme and the areas that require improvement.

It is essential that, as a materials developer, you see development as an ongoing and open-ended activity that is interrelated with the needs of the organisation and its learners.

DON'T

Be affronted if weaknesses are exposed in the material

DO

Be pleased to have the opportunity to ensure that the materials add value to the organisation

DON'T

Try to disguise any problems encountered in the pilot session

DO

Realise that the pilot session is an investment of time, effort and money, aimed at ensuring that training programmes implemented within the organisation achieve optimal, measurable results

DON'T

Feel that problems exposed by the pilot reflect badly on your performance

DO

Feel that investigating and solving possible weaknesses in the material is part of your performance; without attending to this essential area, you would be failing in your duties

Self-Assessment

Self-Assessment:

You have come to the end of this module – please take the time to review what you have learnt to date, and conduct a self-assessment against the learning outcomes of this module by following the instructions below:

Rate your understanding of each of the outcomes listed below :

Keys : ✖ - no understanding

● - some idea

✓ - completely comfortable

NO	OUTCOME	SELF RATING		
		✖	●	✓
SO1	Planning and prepare for development			
SO2	Developing learning materials			
SO3	Developing learning facilitation guidelines			
SO 4	Piloting and evaluate the development			

Chapter 3:
Designing a Learning Framework and Qualification

Learning Outcomes:

The following learning outcomes are covered in this module:

- ✓ Preparing for framework and qualification development
- ✓ Designing the framework and qualification
- ✓ Developing the framework and qualification content
- ✓ Piloting and evaluating the framework and qualification

Prepare for Qualification and Framework Development

In preparing for framework development, the following should be included in the framework:

1. Partnerships are formed to suit the task and represent the needs of stakeholders and/or roleplayers.
2. Structures are established to ensure an effective means for stakeholders and roleplayers to participate.
3. A plan is developed to outline the functions, roles and levels of involvement of all participants.
4. The analysis of the results of skills analyses, outcomes analyses and the organisational training and development plan identifies the full spectrum of learning outcomes required by the organisation. Further analysis leads to a selection of outcomes for which the organisation plans to offer or resource learning.
5. Training courses, providers and assessors, whether internal or external, are identified in relation to outcomes delivered
6. Quality assurance systems are confirmed to address the full scope of learning and assessment offered.

Developing a Curriculum Framework

A framework is a broad statement of principles to guide us in the curriculum planning process. It contains little detail of the plan is to be implemented or the content of the curriculum. The framework should:

1. Define the philosophy on which the curriculum is based
2. Map the progression and portability between the qualifications that the curriculum will cover.

Philosophy

Mehl (1998) identifies some of the guiding principles behind the development of the NQF as follows:

i. To establish a learning environment which enables people to realise their full social and economic potential in a modern world.
ii. To produce educated people who are independent problem solvers and reflective learners and who have learned how to learn.
iii. To provide a learning environment with the proper integration of academic abilities and workplace skills, in order to produce qualifications which not only meets the needs, but

have appropriate intellectual content - thus removing the artificial distinctions between academic and vocational training.

iv. To establish an enabling framework for the many who have been marginalised from formal education and/or workplace opportunities.

v. To remove the existing artificial learning ceilings and to provide the pathways of continuous learning toward meaningful qualifications.

vi. In essence, to establish the framework for a nation of life-long learners who are able to realise their full potential through flexible curricula and opportunity structures that enable movement between various levels of achievement.

The planning process should be conducted within the framework of the above goals as well as the following principles that underpin the objectives of the NQF:

- Integration: form part of a system of human resource development which provides for the establishment of a unifying approach to education and training.
- Relevance: be and remain responsive to national development needs.
- Credibility: have international and national value and acceptance.
- Coherence: work within a consistent framework of principles and certification
- Flexibility: allow for multiple pathways to same learning ends
- Standards: be expressed in terms of nationally agreed framework and internationally acceptable outcomes.
- Legitimacy: provide for the participation of all national stakeholders in the planning and coordination of standards and qualifications.
- Access: provide ease of entry to appropriate levels of education and training for all prospective learners in a manner which facilitates progression.
- Articulation: provide for learners, on successful completion of accredited prerequisites, to move between components of the delivery system.
- Progression: ensure that the framework of qualifications permits individuals to move through the levels of national qualifications via different appropriate combinations of the components of the delivery system.
- Portability: enable learners to transfer credits of qualifications from one learning institution and/or employer to another.
- Recognition of prior learning: through assessment, give credit to learning which has already been acquired in different ways; and
- guidance of learners: provide for the counseling of learners by specially trained individuals who meet nationally recognized standards for educators and trainers.

Partnerships in Planning and Developing an Organisational Learning Framework

In this pr-phase the role-players and stakeholders who should be consulted or involved in the planning should be identified, partnerships established and roles clarified.

Stakeholders and Role-players could include:

Who should participate	Reasons for inclusions/roles
Learners/Employees	As learners are the centre of outcomes-based education and training system, it is essential that they participate, as they will be more committed to the learning process if consulted. This could include expert employees who are ideal performers.
Supervisors/Managers	They have a major responsibility for educating, training and developing their staff and improving the performance of their departments/sections/units. Involving them can intensify learner motivation. They are also in an ideal position to identify gaps in performance that could be addressed by ETD. They are responsible for providing opportunities for transfer of training back to the workplace.
Top Management	They have a major say in ETD Policy development and implementation and provide the resources to ensure effective ETD. Without their support and commitment the skills development strategy of the organization will fail.
HRD Department staff members and ETD Practitioners	They have the qualifications and experience to drive and conduct training interventions. They have knowledge of learners' needs gained from their position within the organisation.
Representatives of trade unions	Particularly important in South Africa, as without their support any training inniative, however well intentioned, will be a failure. Technological development leads to job-obsolescence that makes re-training necessary. It can also cause job losses as machines and computers replace people, and trade unions could view ETD with suspicion because they may perceive that the aim of training is to increase productivity without pay increases and in order to retrench low skilled workers. The trade unions played a significant role in the development of an OBET system in South Africa and are represented on SAQA as well as the National Standards Bodies.
The Training Committee	Some or all of the stakeholders mentioned above may be represented on the organisation's training committee which could typically include the skills development facilitator, the training manager, the employment equity manager, an employee representative from each occupational field in the organisation and a representative of employees with special needs (disabled).
Customers and Clients	Customers can give valuable feedback on the level of service received and identify performance deficiencies that can be addressed by ETD.
Othe ETD Professionals	They may have conducted similar curriculum planning that can be "borrowed" for ideas on implementation, thus saving time and money, and building up a body of knowledge.
The Sector Education and Training Authorities (SETAs) and Education and Training Quality Assurance Bodies (ETQAs)	The SETA is a representative body set up in terms of the Skills Development Act and reports to the Department of Labour. Its role is to create a skills development plan for the particular industry sector it serves. It is responsible for implementing the sector skills plan by establishing learnerships, approving individual organisations' workplace skills plans and allocating skills grants to organisations that qualify. The ETQA, as the name implies, is the mechanism that will monitor quality assurance as regards to providers, assessment and moderation.
Academic Experts, consultants, public and private providers of	They can be consulted for advice. they may be award of new, "cutting edge" methodology and can help to save time and money on "reinventing the wheel".

ETD, international organisations	
Professional Associations	Associations which award professional qualifications and memberships, such as the Institute of People Management, Insurance Institute of SA, SA Board for Personnel Practice.
Community/society	It is a SAQA requirement that all learning programmes address the needs of the community. This is of particular importance with regards to ABET and the development of rural communities.

Designing the Framework

See attached Annexure A - The National Skills Framework for Employees of Public Education

This refers to the design of the overall purpose, components, functions and layout of the framework.

The designer should provide a detailed brief to systems specialists to produce a working framework that will be accessible to all users in electronic form. It is the designersresponsibility to oversee the technical development of the framework.

The design should be based on the results of the analysis and incorporate lessons from previous development, pilot projects and evaluations.

The design should ensure that the framework forms a series of learning pathways and a coherent whole, with useful and appropriate linkages between the various components.

SAQA principles and NQF and organisational requirements are incorporated in the design

The brief for the technical development of the frameworkshould give sufficient detail to ensure the framework meets the design specification.

Design Principles of a Competency Framework

A competency framework defines the knowledge, skills, and attributes needed for people within an organization. Each individual role will have its own set of competencies needed to perform the job effectively. To develop this framework, you need to have an in-depth understanding of the roles within your business. To do this, you can take a few different approaches:

- Use a pre-set list of common, standard competencies, and then customize it to the specific needs of your organization.
- Use outside consultants to develop the framework for you.
- Create a general organizational framework, and use it as the basis for other frameworks as needed.

Developing a competency framework can take considerable effort. To make sure the framework is actually used as needed, it's important to make it relevant to the people who'll be using it – and so they can take ownership of it.

The following three principles are critical when designing a competency framework:

1. Involve the people doing the work – These frameworks should not be developed solely by HR people, who don't always know what each job actually involves. Nor should they be left to managers, who don't always understand exactly what each member of their staff does every day. To understand a role fully, you have to go to the source – the person doing the job – as well as getting a variety of other inputs into what makes someone successful in that job.
2. Communicate – People tend to get nervous about performance issues. Let them know why you're developing the framework, how it will be created, and how you'll use it. The more you communicate in advance, the easier your implementation will be.
3. Use relevant competencies – Ensure that the competencies you include apply to all roles covered by the framework. If you include irrelevant competencies, people will probably have a hard time relating to the framework in general. For example, if you created a framework to cover the whole organization, then financial management would not be included unless every worker had to demonstrate that skill. However, a framework covering management roles would almost certainly involve the financial management competency.

Developing the Framework

There are four main steps in the competency framework development process. Each steps has key actions that will encourage people to accept and use the final product.

Step One: Prepare

Define the purpose – Before you start analyzing jobs, and figuring out what each role needs for success, make sure you look at the purpose for creating the framework. How you plan to use it will impact whom you involve in preparing it, and how you determine its scope. For example, a framework for filling a job vacancy will be very specific, whereas a framework for evaluating compensation will need to cover a wide range of roles.

Create a competency framework team – Include people from all areas of your business that will use the framework. Where possible, aim to represent the diversity of your organization. It's also important to think about long-term needs, so that you can keep the framework updated and relevant.

Step Two: Collect Information

This is the main part of the framework. Generally, the better the data you collect, the more accurate your framework will be. For this reason, it's a good idea to consider which techniques you'll use to

collect information about the roles, and the work involved in each one. You may want to use the following:

Observe – Watch people while they're performing their roles. This is especially useful for jobs that involve hands-on labor that you can physically observe.

Interview people – Talk to every person individually, choose a sample of people to interview, or conduct a group interview. You may also want to interview the supervisor of the job you're assessing. This helps you learn what a wide variety of people believe is needed for the role's success.

Create a questionnaire – A survey is an efficient way to gather data. Spend time making sure you ask the right questions, and consider the issues of reliability and validity. If you prefer, there are standardized job analysis questionnaires you can buy, rather than attempting to create your own.

Analyze the work – Which behaviors are used to perform the jobs covered by the framework? You may want to consider the following:

Business plans, strategies, and objectives.

- Organizational principles.
- Job descriptions.
- Regulatory or other compliance issues.
- Predictions for the future of the organization or industry.
- Customer and supplier requirements.

Job analysis that includes a variety of techniques and considerations will give you the most comprehensive and accurate results. If you create a framework for the entire organization, make sure you use a sample of roles from across the company. This will help you capture the widest range of competencies that are still relevant to the whole business.

As you gather information about each role, record what you learn in separate behavioral statements. For example, if you learn that Paul from accounting is involved in bookkeeping, you might break that down into these behavioral statements: handles petty cash, maintains floats, pays vendors according to policy, and analyzes cash books each month. You might find that other roles also have similar tasks – and therefore bookkeeping will be a competency within that framework.

When you move on to Step Three, you'll be organizing the information into larger competencies, so it helps if you can analyze and group your raw data effectively.

Step Three: Build the Framework

This stage involves grouping all of the behaviors and skill sets into competencies. Follow these steps to help you with this task:

Group the statements – Ask your team members to read through the behavior statements, and group them into piles. The goal is to have three or four piles at first – for instance, manual skills, decision-making and judgment skills, and interpersonal skills.

Create subgroups – Break down each of the larger piles into subcategories of related behaviors. Typically, there will be three or four subgroupings for each larger category. This provides the basic structure of the competency framework.

Refine the subgroups – For each of the larger categories, define the subgroups even further. Ask yourself why and how the behaviors relate, or don't relate, to one another, and revise your groupings as necessary.

Indentify and name the competencies – Ask your team to identify a specific competency to represent each of the smaller subgroups of behaviors. Then they can also name the larger category.

Here's an example of groupings and subgroupings for general management competencies:

- Supervising and leading teams.
    - Provide ongoing direction and support to staff.
    - Take initiative to provide direction.
    - Communicate direction to staff.
    - Monitor performance of staff.
    - Motivate staff.
    - Develop succession plan.
    - Ensure that company standards are met.
- Recruiting and staffing.
    - Prepare job descriptions and role specifications.
    - Participate in selection interviews.
    - Identify individuals' training needs.
    - Implement disciplinary and grievance procedures.
    - Ensure that legal obligations are met.
    - Develop staff contracts.
    - Develop salary scales and compensation packages.
    - Develop personnel management procedures.
    - Make sure staff resources meet organizational needs.
- Training and development.
    - Deliver training to junior staff.
    - Deliver training to senior staff.
    - Identify training needs.
    - Support personal development.
    - Develop training materials and methodology.
- Managing projects/programs
    - Prepare detailed operational plans.
    - Manage financial and human resources.
    - Monitor overall performance against objectives.

- Write reports, project proposals, and amendments.
- Understand external funding environment.
- Develop project/program strategy.

You may need to add levels for each competency. This is particularly useful when using the framework for compensation or performance reviews. To do so, take each competency, and divide the related behaviors into measurement scales according to complexity, responsibility, scope, or other relevant criteria. These levels may already exist if you have job grading in place.

Validate and revise the competencies as necessary – For each item, ask these questions:

Is this behavior demonstrated by people who perform the work most effectively? In other words, are people who don't demonstrate this behavior ineffective in the role?

Is this behavior relevant and necessary for effective work performance?

These questions are often asked in the form of a survey. It's important to look for consensus among the people doing the job, as well as areas where there's little agreement. Also, look for possible issues with language, or the way the competencies are described, and refine those as well.

Step Four: Implement

As you roll out the finalized competency framework, remember the principle of communication that we mentioned earlier. To help get buy-in from members of staff at all levels of the organization, it's important to explain to them why the framework was developed, and how you'd like it to be used. Discuss how it will be updated, and which procedures you've put in place to accommodate changes.

Here are some tips for implementing the framework:

Link to business objectives – Make connections between individual competencies and organizational goals and values as much as possible.

Reward the competencies – Check that your policies and practices support and reward the competencies identified.

Provide coaching and training – Make sure there's adequate coaching and training available. People need to know that their efforts will be supported.

Keep it simple – Make the framework as simple as possible. You want the document to be used, not filed away and forgotten.

Communicate – Most importantly, treat the implementation as you would any other change initiative. The more open and honest you are throughout the process, the better the end result – and the better the chances of the project achieving your objectives.

Key Points

Creating a competency framework is an effective method to assess, maintain, and monitor the knowledge, skills, and attributes of people in your organization. The framework allows you to

measure current competency levels to make sure your staff members have the expertise needed to add value to the business. It also helps managers make informed decisions about talent recruitment, retention, and succession strategies. And, by identifying the specific behaviors and skills needed for each role, it enables you to budget and plan for the training and development your company really needs.

The process of creating a competency framework is long and complex. To ensure a successful outcome, involve people actually doing carrying out the roles to evaluate real jobs, and describe real behaviors. The increased level of understanding and linkage between individual roles and organizational performance makes the effort well worth it.

Legislation

For a person to function effectively in any capacity involving Skills Development in the organisation you must have a sound grasp of the legislation that underpins the National Qualifications Framework.

This section introduces you to the approach to Education and Training, the driving legislation and the legislation that aims to redress historical imbalances. One of the requirements of the person holding the SDF award is to provide information and advice to the organisation on the Legislation. This information will act as a foundation for the organisation moving towards compliancy with the requirements of the new laws.

The Bill of rights

The Bill of rights is part of the South African Constitution and confirms the legal right of all citizens to education. Everyone has a right to a basic education and to further education which should be made progressively available and accessible through reasonable measures by the state.

Everyone has a right to receive education in the official language or the language of choice in public institutions where that is reasonably practicable. All reasonable education alternatives should be considered as well as equity, practicability and the need to redress past racial discriminatory laws.

Everyone has the right to establish and maintain at their own expense independent education institutions, that are state register, that do not use discriminatory practices and that maintains acceptable standards.

Key legislation driving skills development in South Africa

(Copies of Acts are included in the workbook at the back under Annexure: Legislation.)

The Acts that guide skills development in SA include:

- Skills Development Act (No. 97 of 1998) as amended by the Amendment - Skills Development Act – 2003 and 2008 (SDA)
- The Skills Development Levies Act (No. 9 of 1999) (SDLA)
- The SAQA Act Number 58 of 1995
- The Employment Equity Act Number 55 of 2003

- The Broad-Based Black Empowerment Act Number 53 of 2003
- The National Skills Development Strategy (2005 – 2010)
- Regulations published in the Government Gazette, No. 27801. 18 July 2005.
- Amendments to Sector Education and Training Authorities (Setas) Grant Regulations Regarding Monies Received by a Seta and Related Matters, November 2006, Skills Development Act, 1998 (Act No. 97 of 1998)

Skills Development Act

The National Skills Development Strategy influenced the president of South African to ask for and sign the Skills Development Act on the 20th October 1998. This Act seeks to co-ordinate training in a more structured and purposeful manner.

The purpose of the Skills Development Act includes the following outcomes:

- To develop the skills of South African workforce and thereby increase the quality of working life for workers;
- To improve the productivity of the workplace;
- To increase the level of investment in education and training in the labour market and to improve the return on investment;
- To support employers to use the workplace as an active learning environment, so that employees can acquire new skills and new entrants can gain work experience;
- To encourage employees to take part in learnerships and other training programmes;
- To ensure the quality of education and training at the workplace;
- To improve the employment prospects of those who were previously disadvantaged;
- To assist work seekers and retrenched persons to find employment; and
- To help employers to find suitably qualified workers.

Skills Development Levies Act

The second most important piece of legislation underpinned in the National Skills Development Strategy is the Skills Development Levies Act (Act 9 of 1999). This act was passed to support the Skills Development Act.

The objectives of the Skills Development Levies Act include:

- To provide for a regulatory framework to address the current low level of investment in training by organisations.
- To provide for the imposition of a Skills Development levy. This is a compulsory levy equivalent to 1.5 % of the payroll of all companies. The levy is collected by SETA and a national collection agency appointed by the Minister of Labour.
- To ensure that 20% of the funds collected is paid to the National Skills Fund. This is to be used for youth development, development of SMMEs and Learnership. The remaining 80% is to be distributed as grants to organisations that carry out accredited training that meets criteria linked to sector skills plan.

Certain categories of employers are exempted from this act and those are:

- Any public service employer in the national or provincial government;
- Any employer whose total remuneration of employees does not exceed R250 000 in the following 12 month period.
- A municipality in respect of which a certificate of exemption has been issued.
- Any national or public entity of which 80% of the expenditure is paid by parliament

Employers pay their levies into SARS and this is placed in a special fund. SARS allocate funds to the SETA for distribution as well as keep a portion for special projects that do not pertain to a particular SETA.

Sector Education and Training Authorities (SETAs), oversee education and training initiatives across defined sectors of the South African economy, lead the second component (The second component of the National Skills Strategy – development of a system to accredit and monitor training to ensure that the needs of industry are being met). These organisations (SETAs) have been created to do the following:

- Accreditation of training providers and workplaces where learners would conduct their on-the-job training;
- Development of learnerships and skills programmes as outcomes-based alternative routes to obtaining educational qualifications;
- Development of training standards and qualifications;
- Capturing data about learners and tracking learner progress post-training intervention; and Information sharing and consultation with primary industry stakeholders

The SETAs are funded by a levy that is paid by all employers across the South African economic sector with a wage bill greater than R250 000 via the South African Revenue Services (SARS).

The 1% of payroll is used to refund employers for training initiatives in sectors that do not have sufficiently large payrolls to be levied and support the co-coordinating frameworks necessary to ensure that the funds are used effectively and efficiently.

SARS pays 80% of the levy directly to the SETAs and the other 20% to the National Skills Fund (NSF). The NSF was established to make sure that sectors too small to benefit from training levies would receive the necessary attention and skills development to foster their growth and economic development

South African Qualifications Authority (SAQA) Act

The South African Qualifications Authority is a body of 29 members appointed by the Ministers of Education and Labour. The members are nominated by identified national stakeholders in education and training. The functions of the Authority are essentially twofold:

- To oversee the development of the NQF, by formulating and publishing policies and criteria for the registration of bodies responsible for establishing education and training standards or qualifications and for the accreditation of bodies responsible for monitoring and auditing achievements in terms of such standards and qualifications;
- To oversee the implementation of the NQF by ensuring the registration, accreditation and assignment of functions to the bodies referred to above, as well as the registration of national standards and qualifications on the framework. It must also take steps to ensure

that provisions for accreditation are complied with and where appropriate, that registered standards and qualifications are internationally comparable.

SAQA must advise the Ministers of Education and Labour. The Authority is required to perform its tasks after consultation and in co-operation with all bodies and institutions responsible for education, training and certification of standards which will be affected by the NQF. It must also comply with the various rights and powers of bodies in terms of the Constitution and Acts of Parliament. The office of SAQA is responsible for implementing the policies and decisions of the Authority.

Outlined in the National Skills Strategy is a need for the alignment of the Skills Development Act and the South African Qualification Authority Act.

This alignment is set to promote the quality of learning in and for the labour market. Such alignment gives employers and workers greater responsibility for ensuring the relevance of training and enhances quality.

It is also critical to mention that with a large number of training qualifications that are available on the training market it makes it increasingly hard for the learners to ascertain the credibility and market value of a course and for employers to determine of the qualification achieved by the learners.

Objectives of SAQA Act include:

- To provide a regulatory system for a national recognition framework consisting of national standards.
- To improve the quality and relevance of training.
- To establish the South African Qualifications Authority (SAQA) to oversee the development and implementation of the National Qualification Framework (NQF).

In a nutshell, SAQA Act 58 of 1995 seeks to form a legal baseline for further development of an integrated approach to education and training in this country.

The first component of the National Skills Strategy - the development of uniform standards to allow for recognition of learning (both formal and prior) across all industries and training institutions - mentioned earlier is guided by the SAQA and the Standard Generating Bodies (SGBs). SAQA is a body that oversees and assesses the work of the SGBs. Standard Generating Bodies operate on a sub-sectoral level to establish the standards that will guide and inform the development of education and training curricula in South Africa.

Employment Equity Act

The Employment Equity Act and the Skills Development Act compliments one another in as much as both make provision for the training and skills development of targeted groups. These target groups are those previously disadvantaged and include Black people, women and the disabled. Furthermore, it is required that an Affirmative Action Work plan is drawn up by the company to indicate its strategy to achieving representivity within a one year and five year period.

There are many companies that appoint candidates in promotional positions without the necessary ability to perform their tasks effectively. This leaves employees with the perception that the EE Act has failed in its objective. The Skills development Act assist the EE Act in addressing this weakness in the EE legislation by insisting that employers provide the necessary training and development to these employees as part of their strategic planning every year.

It is clear that there is an *overlap* between the *Employment Equity Act* and the *Skills Development Act* in terms of the following requirements:

- The conducting of a company analysis.
- Consulting with employee representatives and other relevant stakeholders.
- Identifying learning opportunities for staff from designated groups.
- Drawing up a plan to address identified weaknesses to support career-pathing and growth and development of the employee.
- Identifying within this plan, the company's strategy for ensuring representivity within all levels of management and monitoring progress, evaluating and implementing if necessary newer strategies.

National Skills Development Strategy (NSDS)

Below is an outline that highlights the aims of the National Skills Development Strategy in brief. It is important to note that the NSDS strategy aims to address the following opportunities:

- Discrimination in access to education and training opportunities along racial and gender lines and against people living with disabilities.
- Segmentation of the labour market into unskilled, semi-skilled and skilled, with restrictions on upward mobility of the lower skilled workers.
- Separation of education & training, where classroom learning is separated from practical training.
- Many workers have insecure jobs due to being employed as casual, seasonal or migrant labourers with limited prospects for future developments.
- Others have resorted to the informal economy, where people are living on a subsistence income without much hope of growth.
- Extremely high levels of unemployment, particularly among the black, female and rural population groups.
- Globalisation of the world economy places higher demands for productivity and innovation on all nations, including our country

It is thus envisaged that the NSDS will raise levels of competency that promote economic and employment growth and development. Employees should then achieve nationally recognised qualifications to improve their quality at work and to advance their levels of employment.

There are 5 principles that guide the NSDS, namely:

- Promotion of equity
- Demand-led

- Flexibility and decentralisation
- Partnerships and cooperation
- Efficiency and effectiveness

The objectives of the National Skills Development Strategy include:

- Developing a culture of high quality lifelong learning.
- Fostering skills development in the formal economy for productivity and employment growth.
- Stimulating and supporting skills development in small businesses.
- Promoting skills development for employability and sustainable livelihoods through social development initiatives.
- Assisting new entrants into employment.

The NSDS is the "big picture" in relation to skills development in South Africa. It is important to understand the relationship that the NSDS have with a variety of different structures and how they influence the achievement of the strategy outcomes.

The economic, technological, social and political factors that the country is currently experiencing have brought with them demands for a skilled and flexible labour force. This compels industries in the country to become more competitive and agile. It is against this background that the country has to ensure equal access to training for all citizens as well as level out the imbalances and disadvantages faced by particular groups (Van Dyk, 2001).

Clearly, this challenges the country to come up with policies and legislation that will accommodate the economic and social changes. The legislation is required to regulate the actions and inputs of those involved in the training market.

The previous Governor of the South African Reserve Bank, Tito Mboweni, is quoted as saying that "…*we need to break a mindset that sees workers simply as hands and legs to be supervised, rather than brains and emotions to be motivated"* (Barker,1991: 229).

Shortages of skilled labour have been and are still an issue in South Africa and this has affected many industries across the country. In the 90's it was estimated that South African companies spent on average 3.3% of their total payroll on training compared to the major trading partners such as Japan, which spends about 10%, and the USA, spending 5% on training.

South African training expenditure is generally low and many industries in the country have been launching complaints to the Department of labour (Ibid, 1991). Generally, South Africa has a poor profile when it comes to skills variety.

A skills variety can be defined as "an attribute of a job that uses an individual's talents and abilities to the maximum, thus making the job seem worthwhile and important" (Whetten *et al*, 2002).

The National Training Board published a national training strategy in 1994 to try and address the above mentioned shortages and problems in training and development. The national training strategy is underpinned by very important pieces of legislation which we are going to look at shortly (note that the acts discussed here are not necessarily according to the sequence of years in which they were passed). Embedded in this strategy were two major components:

- The development of uniform standards to allow for recognition of learning (both formal and prior) across all industries and training institutions.
- The development of a system to accredit and monitor training to ensure that the needs of industries are being met.

South African Qualifications Authority (SAQA)

To further our discussion let us look closely at the South African Qualifications Authority and its functions.

SAQA consists of a chairperson appointed by the Minister of Education, various members and the executive officer. The jurisdiction of SAQA covers all education and training and therefore its membership reflects the widest cross-section of education and training sectors.

Functions of SAQA

We mentioned earlier that this authority is set to oversee the development and implementation of the National Qualification Framework.

The development phase of this framework is in two parts:

- The refinement of the proposed structure of the NQF in terms of levels of learning. This helps in terms of specifying the nature of the national qualifications at each level.
- The working out of procedures for the facilitation and registration of the bodies which will set the learning standards in their fields, and other bodies which will be responsible for the accreditation.

National Qualifications Framework

It is a framework i.e. it sets the boundaries - a set of principles and guidelines which provide a vision, a philosophical base and an organisational structure - for construction, in this case, of a qualifications system. Detailed development and implementation is carried out within these boundaries.

It is national because it is a national resource, representing a national effort at integrating education and training into a unified structure of recognised qualifications. It is a framework of qualifications i.e. records of learner achievement.

In short, the NQF is the set of principles and guidelines by which records of learner achievement are registered to enable national recognition of acquired skills and knowledge, thereby ensuring an integrated system that encourages life-long learning.

The elements that make up the NQF include:

- General and Further Education and Training-This element incorporates schools and FET colleges;
- Higher Education- This element includes universities, universities of technology; and
- Trades and Occupations- This element involves workplace learning and skills development such as learnership.

The objectives of the NQF as outlined in the SAQA Act are as follows:

- To create an integrated national framework for learning achievements;

- Facilitate access to, and mobility and progression within education, training and career paths;
- Enhance the quality of education and training;
- Accelerate the redress of past unfair discrimination in education, training and employment opportunities;
- Contribute to the full personal development of each learner and the social and economic development of the nation at large.

Every qualification on the NQF gets registered on a specific NQF level from 1 – 10 to reflect progression in learning. The levels are grouped into three sectors reflecting the transition from general education to further education to higher education. The table below shows each level of the NQF:

<table>
<tr><td>NQF LEVEL</td><td>BAND</td><td colspan="2">QUALIFICATION TYPE</td></tr>
<tr><td>10</td><td rowspan="6">HIGHER EDUCATION AND TRAINING</td><td colspan="2">• Post-doctoral research degrees</td></tr>
<tr><td>9</td><td colspan="2">• Doctoral research degrees</td></tr>
<tr><td>8</td><td colspan="2">• Masters degrees</td></tr>
<tr><td>7</td><td colspan="2">• Professional Qualifications
• Honours degrees</td></tr>
<tr><td>6</td><td colspan="2">• National first degrees
• Higher diplomas</td></tr>
<tr><td>5</td><td colspan="2">• National diplomas
• National certificates</td></tr>
<tr><td colspan="4">FURTHER EDUCATION AND TRAINING CERTIFICATE</td></tr>
<tr><td>4</td><td rowspan="3">FURTHER EDUCATION AND TRAINING</td><td colspan="2" rowspan="3">• National certificates</td></tr>
<tr><td>3</td></tr>
<tr><td>2</td></tr>
<tr><td colspan="4">GENERAL EDUCATION AND TRAINING CERTIFICATED</td></tr>
<tr><td rowspan="2">1</td><td rowspan="2">GENERAL EDUCATION AND TRAINING</td><td>Grade 9</td><td>ABET Level 4</td></tr>
<tr><td colspan="2">• National certificates</td></tr>
</table>

Who benefits from the NQF?

- Learners: benefit from quality education provision of qualifications that enjoy national recognition and where appropriate, international comparability;
- Workers: benefit from clear learning paths in the qualification structure, to facilitate and support life-long learning and career advancement;
- Employers: benefit from a work force, competent in the skills and attitudes required in the competitive global economy of which South Africa is a part;
- Society: benefits from a proud, learning nation with the intellectual ability to adapt swiftly to change, especially technological change.
- Building our new nation demands the establish-ment of an integrated education and training system which acknowledges the achievements of all learners equally and supports a learning nation.

Key deliverables of the NQF

- Develop a system of collaboration to guide the mutual relations of SAQA and the QCs, and resolve disputes regarding the QCs
- In agreement with the QCs develop the content of level descriptors for each level of the NQF. The agreed level descriptors must be published in the Gazette and should be kept current and appropriate
- Develop and implement policy and criteria, after consultation with the QCs, for the development, registration and publication of qualifications and part-qualifications. SAQA must also register a qualification or part qualification that is recommended by a QC if it meets the relevant criteria. It must develop policy and criteria, after consultation with the QCs, for assessment, recognition of prior learning and credit accumulation and transfer
- Develop and implement policy and criteria for recognising a professional body and registering a professional designation for the purposes of the NQF Act, after consultation with statutory and non-statutory bodies of expert practitioners in occupational fields and with the QCs. SAQA must also recognise a professional body and register its professional designation if the stipulated criteria have been met
- SAQA must collaborate with its international counterparts on all matters of mutual interest concerning qualifications, and inform the QCs and other interested parties about international practice in the development and management of qualifications frameworks
- SAQA must conduct or commission investigations on issues of importance to the development and implementation of the NQF, including periodic studies of the impact of the NQF on South African education, training and employment. These findings must be published
- SAQA must maintain a National Learners' Records Database comprising registers of national qualifications, part-qualifications, learner achievements, recognised professional bodies, professional designations and associated information
- SAQA must provide and evaluation and advisory services for foreign qualifications
- SAQA must also inform the public about the NQF

NQF version 2

The NQF as it stands have some problems that the new version wants to address

for example:

NQF Version 1 (Problem)	NQF Version 2 (Solution)
Labour Market Disconnection between qualifications and need of labour market	Labour Market OLS will analyse and report on labour needs and record this. It provides a link between career pathing and learning solutions.
ETQA ETQAs are complex and there are many ETQAs to comply with and understand. The 31 quality assurance bodies looked after the quality of learning and delivery.	ETQA Now there is one Quality Council, the QCTO that takes overall responsibility of the quality of learning and delivery. The QCTO may delegate some of these duties to ETQAs that show that they have the capacity to perform the functions.
SGBs There are many SGBs and their workings are very complex and their workings were divorced from the quality assurance of unit standards and qualifications, thus resulting in learning failing to meet the intentions of the designers.	SGBs The QCTO will now take full responsibility of this function as well as the generation of unit standards and qualifications. As the QCTO is also responsible for the quality assurance of unit standards and qualifications, there is a perception that there will be a tighter link between the different parts.
Qualifications Occupational learning is not sufficiently and effectively dealt with in the old system and does not show the workplace component well enough. Qualification design hinders work related learning. Qualifications are complex. There is a lot of duplication in different qualifications.	Qualifications All qualifications on the OQF have 3 components, namely knowledge and theory, practical skills and work place experience. Fundamental learning is further strengthened in the qualification design as more communication and maths requirements are building into qualifications. Under the QCTO only one qualification per occupation can be registered, thus translating into approximately 1 300 qualifications in total.

Unit Standards There is a rise in unit standards as there are over 15 000 standards registered on the NQF.	Unit Standards Unit standards will be streamlined into 3 different types, namely Knowledge, Practical skills and Work experience.
Provider Accreditation This is a complicated process that is very time consuming and costly. Different ETQAs were required to have MoUs in place with one another to be able to work together, thus 961 MoUs.	Provider Accreditation Providers to not have to re-accredit their programmes again. They only need to obtain programme approval for a certain section of the training depending on the type of provision. Accreditation for work-based learning is done by one body, the QCTO.
Programmes The focus was placed on full qualifications as well as learnerships and shorter courses were ignored such as programmes for artisans and trades persons. More focus was placed on accreditation and programme approval and little focus was placed on the impact of learning.	Programmes The OQF makes provision for regulated and non regulated programmes to be registered on the framework. The emphasis will now be placed on quality of delivery and the effectiveness of the provision.
Delivery The quality of delivery in the past was sometimes inconsistent and of poor quality and the monitoring thereof insufficient.	Delivery The OQF will recognise and establish centralised national assessment sites.
Achievement of learning Throughput is severely challenged, portability poor and there is limited progression options for learners. RPL is difficult and in some instances impossible as there was no understanding of how to facilitate this process well.	Achievement of learning The OQF will develop a system for credit accumulation and transfer based on the 3 different components that make up a qualification, namely knowledge, practical skills and work experience.

National Skills Authority (NSA)

This is a stakeholder body with representatives from organised labour, organised business, training providers and various community groups.

This body is responsible for advising the Minister of Labour on the national skills development policy and strategy, on guidelines for implementing the strategy.

The main function of the NSA is to advise the Minister on a national skills development policy as well as the strategy and outcomes to be achieved.

The authority also offers:

- advice on a national skills development strategy;
- guidelines on the implementation of the national skills development strategy;
- the allocation of subsidies from the National Skills Fund; and
- on any regulations to be made.

In sum, the NSA is an overarching body whose main function is to advise and report to the Minister on policy, strategy, allocation of funds and regulations.

The functions of the National Skills Authority include:

- To liaise with SETAs on the national skills development policy and the national skills development strategy.
- To report to the Minister in the prescribed manner on the progress made in the implementation of the national skills development strategy;
- To conduct investigations on any matter arising out of the application of this Act; and
- To exercise any other powers and perform any other duties conferred or imposed on the Authority by this Act.
- The Authority must perform its functions in accordance with this Act and its constitution.

Occupational Learning System (OLS)

OLS - Definition

"The OLS is a new approach to skills development focussing on job-related qualifications and their relevance to employment requirements." (The Skills Development Handbook, Pg 221)

Linking learning and linking occupations

In our complex labour market there is a structure of approximately 1 300 distinct occupations and there seemed to be a prospect of a qualification for each of these occupations. This is important to note as one of the reasons for the restructuring was to eliminate the duplication of qualifications and unit standards as part of the NQF.

The OLS links occupations into a framework so as to assist learners with mobility, progression and flexibility in their choice of career.

Components of the OLS

1. The Labour Market – The labour market is the source where the demand of labour comes from as well as where the signs of the decline of an occupation will first be seen.

2. Reporting Systems and Frameworks – This is the capturing mechanism that captures and reports on all the data from the labour market as well as any improvements that are taking place in the labour market. Two examples of these systems are Employment Services for SA (ESSA) and Organising Framework for Occupations (OFO). ESSA is the system that will require all employers and private employment services to register vacancies on their database. The OFO is the framework that categorises all occupations and groups of occupations into their entry and advanced levels of competences.

3. Planning and Management Systems – The planning and management system interpret the information gathered by the Reporting Systems and Frameworks. The information is translated into the National Occupational Pathway Framework (NOPF), Occupational Qualifications Framework (OQF) as well as the Sector Skills Plans (SSPs).

4. Learning Systems – These are used to take the data collected on skills and develop timeous and appropriate solutions to match the data. This is communicated to the Quality council for Trades and occupations (QCTO), Communities of Expert Practice (CEP) and will feed into the development, design and revision of Occupational qualifications.

The necessity of the OLS

The OLS is necessary to assist with trying to raise the level of education of all the people in the country. Secondly the OLS is needed to assist labour in obtaining employment and thirdly to address the inequities of not having sufficient graduates in the labour market.

The Labour Market Defined

The success of the OLS will be determined by the impact of learning on the labour market. The labour market refers to a grouping of jobs, trades, occupations and professions.

ESSA Defined

ESSA – Employment Services South Africa

ESSA is a government based agency and database used for:

- Registration services of individuals, employers, employments opportunities and providers.
- Career information and guidance services that include counselling and career guidance.
- Skills development services that includes the identification of scares and critical skills, the registration of training programmes with the NSF, allocation of skills development funding, the selection and contracting of providers as well as the processing of claims and the scheduling of assessments with INDLELA.
- Other important services that include brochures, pamphlets, career packages and other advocacy initiatives.
- Special services such as services provided to vulnerable groups such as people with disabilities, youth, retrenched employees as well as ex-offenders.

OFO Defined

The organising framework of occupations categorises and groups related

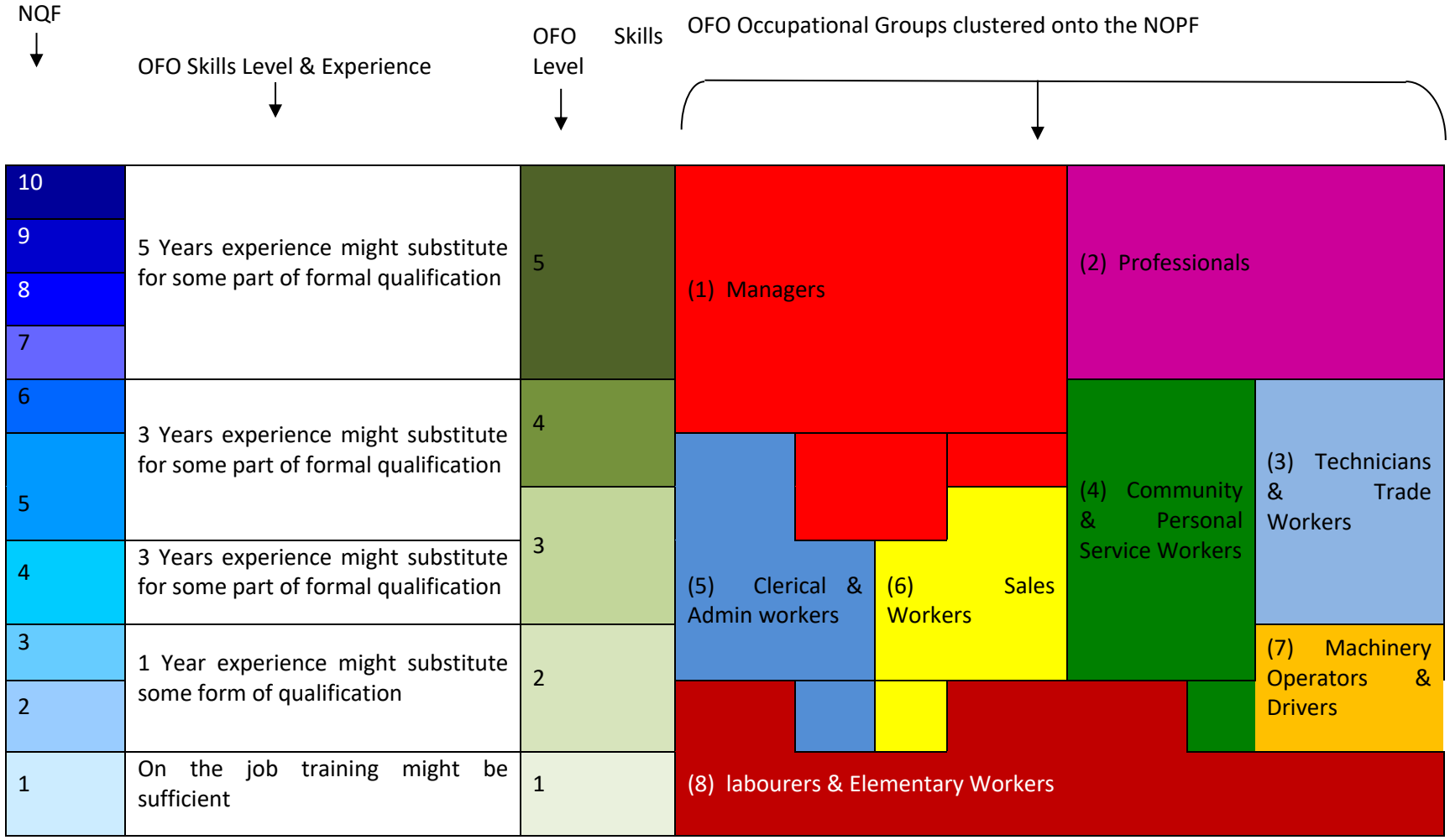
occupations and groups of occupations from entry level to advanced levels of

competencies.

Please refer to the OFO Diagramme at the end of this section.

How to link the NQF to the OFO

Picture concept: Department of Labour and CTZ



NQF AND PATHWAYS OF PROGRESSION

NQF Level	Descriptor	Specialisation Career Path	Management Career Path
10	High-level occupations and professions	Research professionals	Strategic management
9		Professional	Senior management
8		Para-professional	
7	Mid-Level occupations	Support professional, technologist, master artisan	Middle management
6		Technical, specialised sales, master artisan	
5			Supervisory management
4	Skilled, administrative and service level occupations and trades	Trades, technical, clerical, service, assistants, general sales	
3			"Work group" management
2	Support level occupations		
1	Entry level workers, elementary occupations		

The NOPF

The National Occupational Pathways Framework is a framework that indicates the different career based occupations and career paths linked within and across related occupational families.

The NOPF is needed to:

1. Identify skills shortages.
2. Re-skilling opportunities as standards and requirements change.

Some of the benefits of the NOPF include:

1. Learning interventions will be designed and delivered with more relevance of what happens in that particular occupation.
2. Learning interventions are adapted to occupations with regards to tasks, skills levels and specialisation per occupational group.
3. Career counselling and support will be relevant and more specific.

The OQF

The Occupational Qualifications Framework is a sub framework of the NQF.

The OQF will be managed, developed and maintained by the QCTO.

The types of occupational qualifications and certificates that can be obtained on the OQF are:

- National Occupational Award
- National skills Certificate
- Foundational Learning Competence

Medical practitioners, Engineers, Town planners and Architects are some of the occupations that do not fall in the OQF. There are also some occupations that are already offered on the NQF that does not necessarily need to migrate to the OQF unless the need is identified such as nurses, chiropractors etc.

Quality Assurance of the OQF

The quality assurance of the Occupational Quality Framework is the responsibility of the QCTO. Their purpose is to:

1. To ensure that the skills need of the labour market is ensured.
2. Learning experience must be structured, relevant and appropriate.
3. Occupational competence must be ensured in the achievement of qualifications.

The major shift lies with the simplicity, relevance, flexibility and quality of a

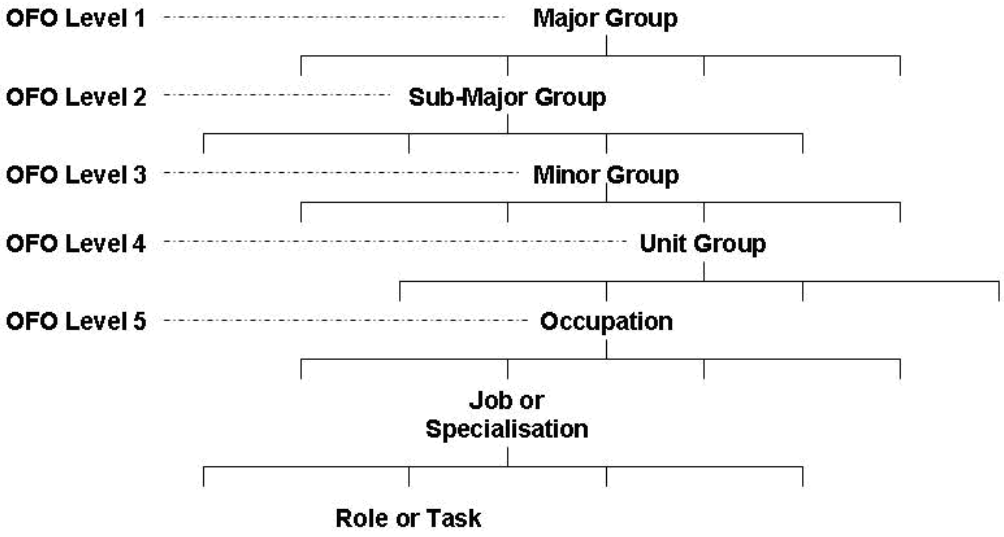
qualification is improved.

Step 2: Utilising the Organising Framework for Occupations (OFO)

Overview of the Structure of the Organising Framework for Occupations (OFO)

The OFO has been introduced by the Department of Labour (DoL) to simplify and standardise the categorisation of occupations. The OFO is a skill-based coded classification system, which encompasses all occupations in the South African context. The structure of the OFO is presented in Figure 1 below.

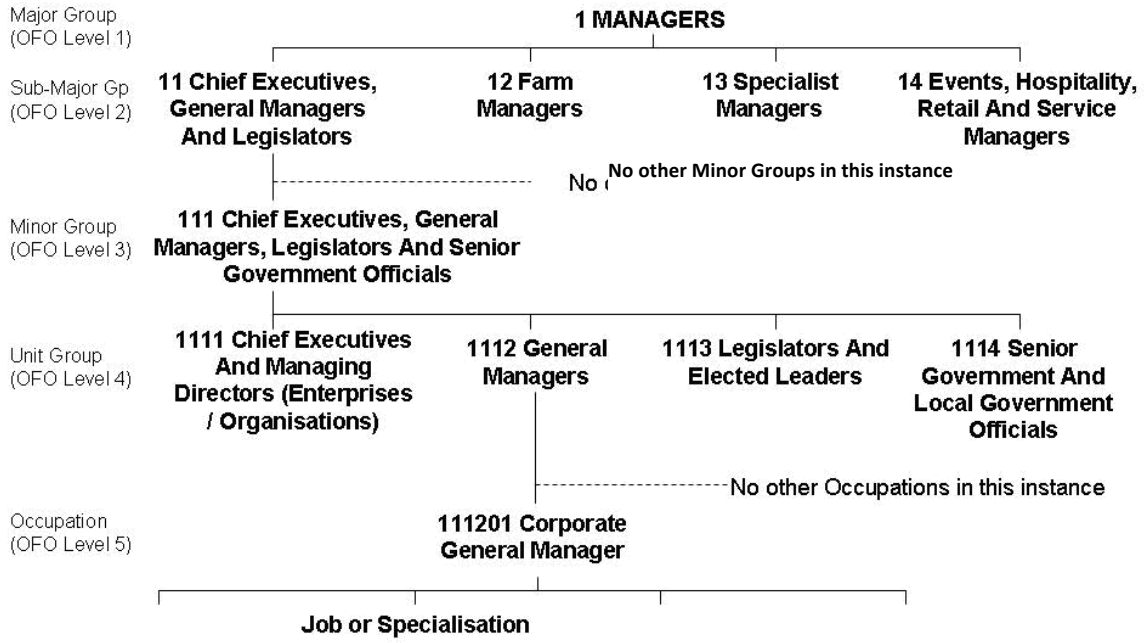
Figure 1: Structure of the OFO



With reference to Figure 1, note that occupations are categorised according to Major Group (one digit code), Sub-Major Group (two digit code), Minor Group (three digit code), and Unit Group (four digit code). Occupations (six digit code) are subdivisions of the unit groups and can further be broken down into specialisations or jobs.

An example of this structure is shown in Figure 2 below.

Figure 2: Example of the OFO Structure



As will be noted from Figure 1 and Figure 2, occupations are further segmented into "Jobs" or "Specialisations". Hence, it is important to note that a *'job/specialisation'* and *'occupation'* are not the same. The following definitions are applied:

- "Occupation" is seen as a set of jobs or specialisations whose main tasks are characterised by a high degree of similarity.
- "Job/Specialisation" is seen as a set of roles and tasks (as indicated in Figure 1) designed to be performed by one individual for an employer (including self-employment) in return for payment or profit.

The *occupations* identified in the OFO therefore represent a category that could encompass a number of jobs or specialisations.

Occupations are further classified according to two main criteria: *skill level* and *skill specialisation,* where *skill* is used in the context of competency rather than a description of tasks or functions.

The *skill level* of an occupation is related to *competent performance of tasks associated with an occupation*. Skill level is therefore an attribute of an occupation, not of individuals in the labour force and can operationally be measured by:

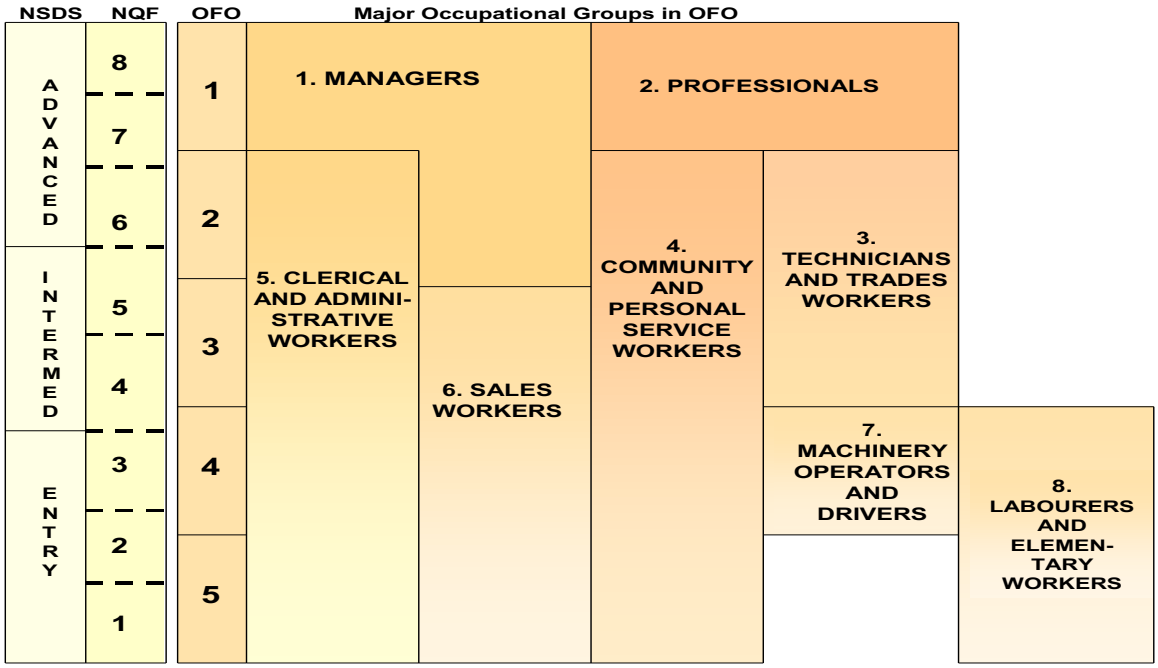
- the level or amount of formal education and/or training (e.g. NQF level);
- the amount of previous experience in a related occupation; and
- the amount of on-the job training

usually required to perform the set of tasks required for that occupation competently. It is therefore possible to make a comparison between the skill level of an occupation and the normally required educational level on the NQF as well as entry, intermediate and advanced levels referred to in the NSDS. This comparison is illustrated in Figure 3 below.

When determining the skill level of an occupation, the question to ask therefore is "What is the skill level (e.g. NQF level) required for this *occupation* to be performed competently?"

Figure 3 provides an estimated comparison of the skill level of the Major Groups in relation to the NQF levels as well as entry, intermediate and advanced level skills. It must be noted that the NQF levels especially are a rough estimation and could vary as they are an indication of qualification level and not necessarily the skill level associated with competent performance.

Figure 3: Comparison between skill levels covered by Major Groups in OFO and NQF and NSDS levels



The *skill specialisation* of an occupation is a function of the *field of knowledge required, tools and equipment used, materials worked on, and goods or services provided* in relation to the tasks performed.

NQF Levels versus Secondary and Tertiary Education System

The following table will assist in providing a cross-reference between NQF Levels and academic qualifications.

Table 1: Cross Reference between NQF Levels and Academic Qualifications

NQF LEVEL	BAND	QUALIFICATION TYPE	
8	HIGHER EDUCATION AND TRAINING	Post-doctoral research degrees (soon to become NQF Level 10) Doctorates (soon to become NQF Level 9) Masters degrees	
7		Professional Qualifications Honours degrees	
6		National first degrees Higher diplomas	
5		National diplomas National certificates	
FURTHER EDUCATION AND TRAINING CERTIFICATE			
4	FURTHER EDUCATION AND TRAINING	Grade 12 (Matric), National certificates	
3		Grade 11, National certificates	
2		Grade 10, National certificates	
GENERAL EDUCATION AND TRAINING CERTIFICATED			
1	GENERAL EDUCATION AND TRAINING	Grade 9	ABET Level 4

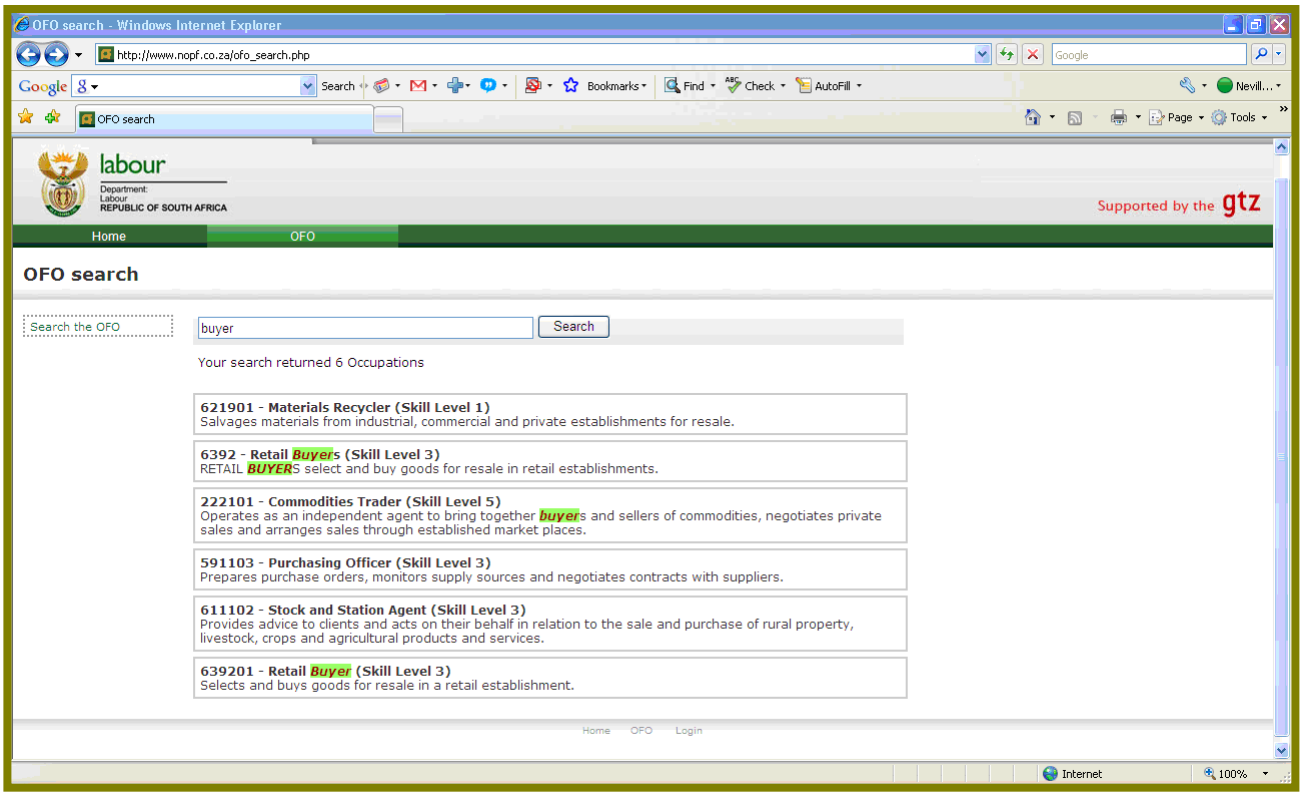
Professional qualifications include qualifications that are not formally obtained through the DoE educational system, such as CISCO certification.

Department of Labour OFO Search Tool

The Department of Labour (DoL) has developed an extremely useful web-based search to assist is identifying OFO Codes

As and example, if you type “buyer” into the search field, all occupations related to a buyer are presented on the screen, as shown in Figure 4 below.

Figure 4: Results of OFO Search on “buyer”



QCTO

The Quality Council for Trades and Occupations (QCTO) is a Quality Council that was established by the NQF Act of 2008. The QCTO is responsible for the quality assurance of their NQF sectors as well as standard setting.

The three different Quality Councils are explained in the diagramme below:

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Name	Area of Responsibility	NQF Levels	Typical learning sites	Responsible to:
Umalusi	General and Further Education and Training Sector	1 - 4	Schools & FET Colleges	Minister of Basic Education
Council for Higher Education - CHE	Higher Education	5 - 10	Universities and Universities of Technology	Minister of Higher Education and Training

Quality council for Trades & Occupations - QCTO	Occupational related learning	1 - 10	Workplaces (FET Colleges and Universities may contribute knowledge and theory and practical skills components)	Minister of Higher Education and Training

The Functions of the QCTO

1. Advise the Minister of Higher Education on occupational qualifications and s standards.
2. Maintain and develop occupational qualifications and standards.
3. Quality assures workplace learning.
4. Submit new qualifications and unit standards to SAQA for registration.
5. Promote the objectives of the NQF.
6. Ensure that the occupational qualifications and unit standards are kept suitable and adequate.
7. Ensure good relations with SAQA and other Quality Councils.
8. Register and maintain Qualification Development Facilitators.

WORKPLACES

Occupational Qualifications Framework - OQF	Foundational Learning Competence (Maths and Literacy)

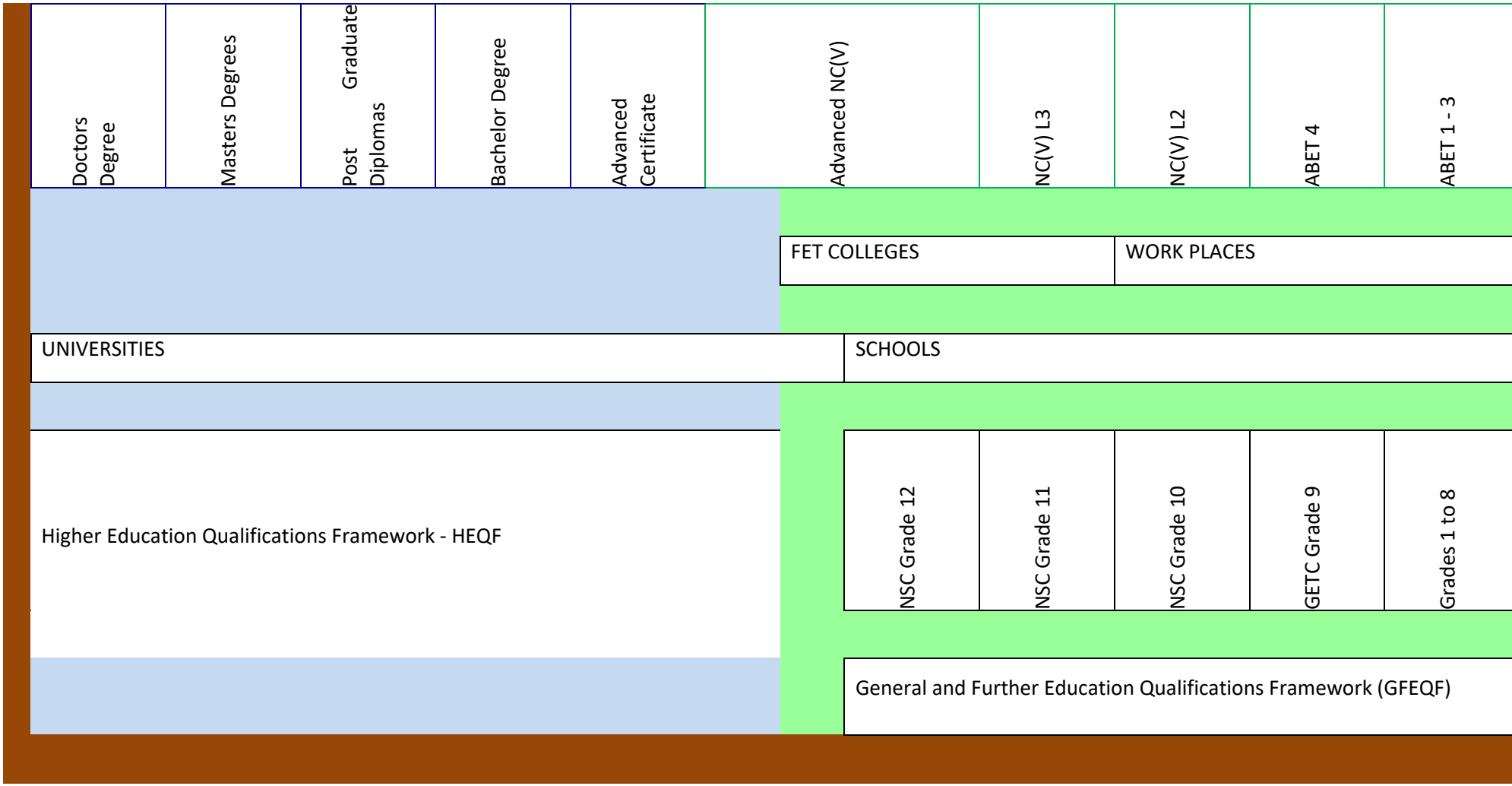
National Skills Certificates NQF Level 1 to NQF Level 10

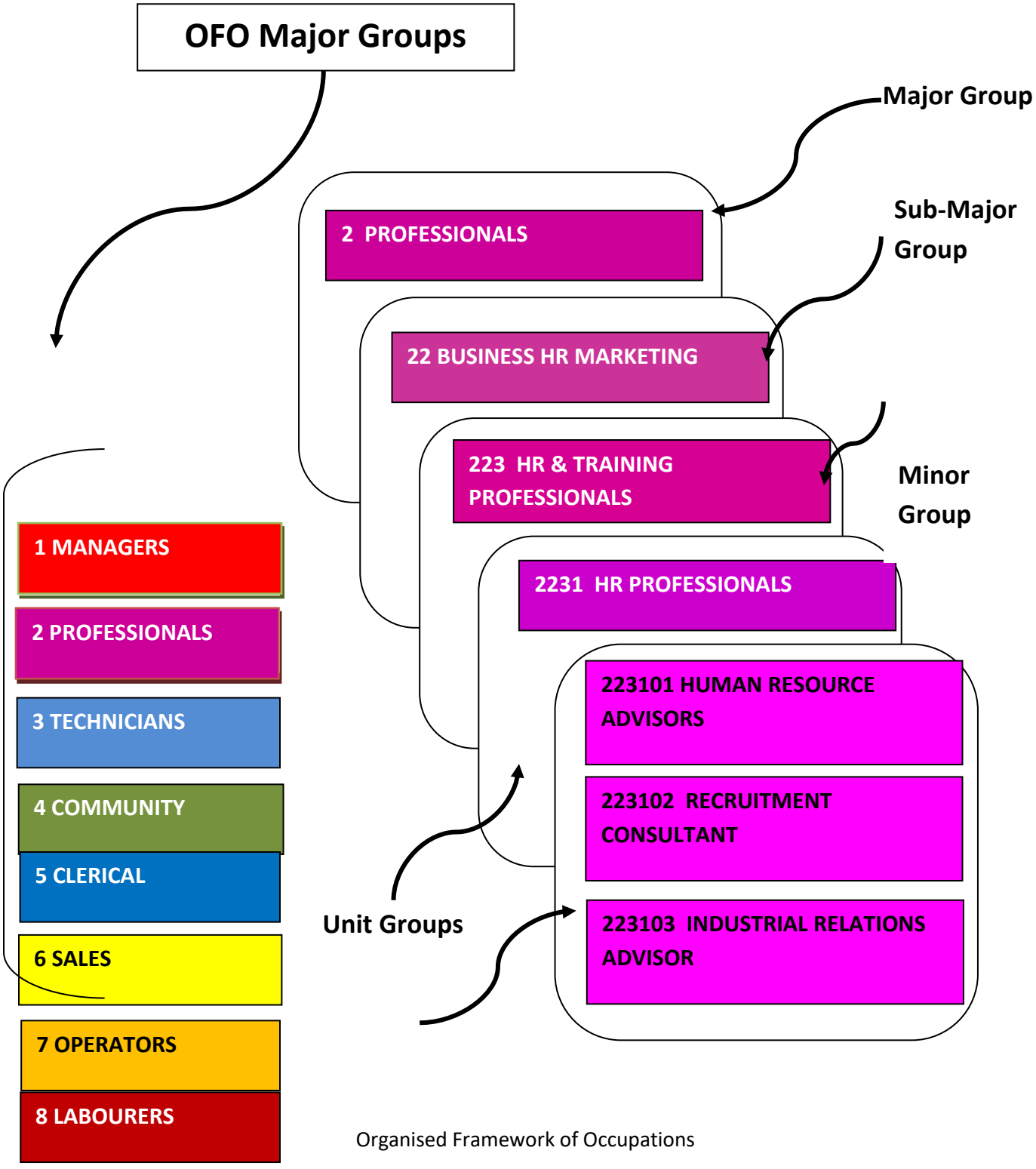
National Occupational Awards NQF Level 1 to NQF Level 9

QCTO

NQF 10	NQFF 9	NQF 8	NQF 7	NQF 6	NQF 5	NQF 4	NQF 3	NQF 2	NQF 1

HEQC	UMALUSI


Doctors Degree
Masters Degrees
Post Graduate Diplomas
Bachelor Degree
Advanced Certificate
Advanced NC(V)
NC(V) L3
NC(V) L2
ABET 4
ABET 1 - 3
FET COLLEGES
WORK PLACES
UNIVERSITIES
SCHOOLS
Higher Education Qualifications Framework - HEQF
NSC Grade 12
NSC Grade 11
NSC Grade 10
GETC Grade 9
Grades 1 to 8
General and Further Education Qualifications Framework (GFEQF)



Organised Framework of Occupations

[OFO]

Occupations

Quality Councils (QCS)

QCs are new sector-based structures responsible for the development and quality assurance of qualifications on the NQF. There are three QCs for the three main sectors namely general and further education and training, higher education, and the trades and occupations sector.

Umalusi is the QC for General and Further Education and Training and encompasses schools and FET colleges. The Council on Higher Education (CHE) is the QC for Higher Education and concerns itself with universities and universities of technology.

The Quality Council for Trades and Occupations is the QC for occupations deals with workplace learning and skills development such as learnership programmes.

Quality Council for Trades and Occupations (QCTO)

The QCTO will seek quality partners (statutory and non-statutory professional bodies, occupational associations, legislated boards, SETAs, etc) appropriate to each group of related occupational qualifications. It will appoint national moderating bodies in this context, which will be delegated certain quality assurance responsibilities.

Sector Education and Training Authorities (SETAs)

In chapter three of the Skills Development Act, reference is made to SETAs. The Minister of Labour is empowered to establish, control and monitor SETAs per national economic sector. It is further the duty of the Minister of Labour to provide assistance to the SETAs to enable them to perform their activities effectively.

The Minister must determine the education and training needs of employers and employees he needs to ensure the use similar materials, processes and technologies; make similar products; or render similar services.

The functions of setas include:

- To develop and implement a sector skills plan within the framework of the national skills strategy, this involves establishing learnerships, approving workplace skills plans, allocating grants in the prescribed manner to employers, education and training providers and workers. It also monitors education and training in the sector.
- To promote learnerships by identifying workplaces for practical experience, supporting development of materials and helping with the conclusion of learnership agreements.
- To register learnership agreements
- To liaise with the NSA, the Director-General of Labour and the employment services of the Department.

- To allocate funds for training
- To monitor and assure quality of provision in a sector.
- To collect and disburse the skills development levies in its sector.
- To interact with workplaces essentially through the Skills Development Facilitators.

Education and Training Quality Assurance (ETQA)

In order to pursue its objectives and execute its functions as laid down by the South African Qualifications Authority (SAQA) Act of 1995, SAQA is required to accredit bodies responsible for monitoring and auditing the provision and achievement of NQF registered standards and qualifications.

These bodies, called Education and Training Quality Assurance bodies (ETQAs) are established under the SAQA Act (No. 58 of 1995). The SAQA Act and the ETQA Regulations, 1998 (No. R. 1127 of 1998) provide the enabling and regulatory framework for implementation of the quality assurance systems and processes required by the National Qualifications Framework (NQF).

These bodies are accredited by SAQA with due regard for the Constitution, Parliamentary and provincial powers and in consultation with national education and training stakeholder representatives. Their activities are monitored to determine and demonstrate compliance with SAQA requirements. They in turn are responsible for the accreditation of constituent education and training providers.

The ETQA Regulation under the South African Qualifications Authority ACT (58) of 1995 makes provision for SAQA to accredit Education and Training Quality Assurance Bodies (ETQA's) to quality assure learning for specified unit standards and qualifications on the National Qualifications Framework (NQF). The said regulation further makes provision for the accreditation of providers through an accredited ETQA.

Accreditation according to the ETQA is described as: "The certification, for usually a particular period of time, of a person, a body or an institution as having the capacity to fulfill a particular function in the quality assurance system set up by the South African Qualifications Authority in terms of the Act.

Provider accreditation is thus the process and the criteria according to which an ETQA will give formal recognition that an organisation/person/body/site is competent to fulfill a particular function in the education and training quality assurance system.

Provider accreditation is a stamp of approval as it relates to the provider's ability to develop, deliver and evaluate learning programmes, which culminate in specified registered unit standards and qualifications. This section focuses on those quality criteria that providers are required to meet for accreditation.

National Standards Body (NSB)

A National Standards Body (NSB) was a body registered in terms of section 5 (1)(a)(ii) of the South African Qualifications Authority Act, 1995, responsible for establishing education and training standards or qualifications, and to which specific functions relating to the registration of national standards and qualifications have been assigned in terms of 5(1)(b)(i) of the Act.

SAQA has established twelve NSBs, one for each organising field. The role of the NSB has since been taken over by the Consultative committees, referred to as organising fields:

Organising field 01: Agriculture and Nature Conservation

Organising field 02: Culture and arts

Organising field 03: Business, Commerce and Management Studies

Organising field 04: Communication Studies and Language

Organising field 05: Education, Training and Development

Organising field 06: Manufacturing, Engineering and Technology

Organising field 07: Human and Social Studies

Organising field 08: Law, Military Science and Security

Organising field 09: Health Science and Social Services

Organising field 10: Physical, Mathematical, Computer and Life Sciences

Organising field 11: Services

Organising field 12: Physical Planning and Construction

Standard Generating Body (SGB)

SGB is a body registered in terms of section 5 of the SAQA Act, 1995. This body is largely responsible for establishing education and training standards or qualifications, and to which specific functions relating to the establishing of national standards and qualifications have been assigned in terms of section 5 of this Act.

Two institutions as part of the Department of Labour

The two institutions that form part of the Department of Labour are the skills Development Planning Unit and the Employment services unit.

The first is the skills Development Planning Unit. This institution is responsible for the co-ordination and planning for the skills development. It is the responsibility of the Director- General to establish the unit to carry out the functions specified in the Act.

The second institution is the Employment Services, this institution provides a range of services to the unemployed individuals, employers, and those entering the labour market for the first time. Some of the services offered by this institution are:

- Counseling of workers on career choices.
- Assessment of work-seekers for entry or re-entry into the labour market.
- Reference of work-seekers to employers to apply for vacancies or to training providers for education and training.
- Assistance of employers by providing them with recruitment and placement services; advising them on the availability of work-seekers with skills that match their needs.

Learnerships

A learnership is a route to an occupational or professional NQF qualification with a strong emphasis on work place experience. Learnerships have the following defining features, namely:

There is a formal contract between the learner, employer and service provider.

Achievements are formally assessed by accredited providers.

The learning path includes supervised and structured experiential learning in the workplace.

Higher Education Programmes versus FET Programmes

A higher education programme is one that is at level 5 and above on the NQF has a minimum of 120 credits and could take you at least a year of full-time study in a higher education institution.

FET programmes, on the other hand, can be found on level 4 on the NQF. FET programmes are usually offered by FET colleges, although some (especially private higher education providers) do offer FET programmes as well.

As the HEQC deals with higher education programmes only, for more information on qualifications lower than level 5, please visit the website of Umalusi, the Council for Quality Assurance in General and Further Education and Training (www.umalusi.org.za).

National Learner Record Database (NLRD)

Each Education and Training Provider sends its learner achievement data to the Education and Training Quality Assurance Body (ETQA) that accredits the particular qualification. This data is sent in the format specified by each ETQA and providers are encouraged to obtain these specifications from their ETQAs.

This includes Private Higher Providers sending learner achievement data to the Council on Higher Education. The ETQAs hand this data over to the NLRD (in the format specified by SAQA) for batch-loading onto the system.

Each Standards Generating Body or Task Team submits the qualifications and unit standards that they have written to SAQA's Directorate for Standards Setting and Development (DSSD). These are evaluated by the consultative panels, and then DSSD hands these over to the NLRD for on-line capturing before publishing them for public comment.

Developing the Framework Content

It is imperative that the content of the framework should include the learning outcomes for which the organisation provides learning opportunities, whether internal or external, with linkages showing learning progression pathways, providers, assessors, learnerships, skills programmes, learning programmes, courses, seminars, workshops, learning resources and quality assurance requirements.

Steps in developing the framework content involves:

- The purpose of the framework and related outcomes should be clearly identified and must show direct relationships to identified qualifications where applicable and learning and assessment opportunities
- The content, educational methods and learning processes must be appropriate to the needs and characteristics of the organisation.
- The framework should form a series of learning pathways and a coherent whole.
- The content should use language, visuals and a structure that are likely to be understood and received by the anticipated group of users of the framework.
- The content must support the quality assurance and implementation needs of the organisation.

The purpose of staff development has four inter-related considerations

Staff development aims to increase individual effectiveness and efficiency by encouraging and supporting staff to achieve individual work and career goals. Through enhancing the competence of staff, staff development will enable and assist employees to achieve the aims and objectives of the job, of their department/division and therefore, the organisation investing in staff development will enhance the commitment of staff. The provision of quality staff development opportunities will not only help the organisation retain staff but also be pivotal in attracting new staff to the company.

Making Organisational Development Effective

What potential problems and situations should I look for and avoid?

Training may look easy to a casual observer, but there are certain problems that may complicate the trainer's task, according to Taylor (1974). The following are the major pitfalls, and they should be avoided in training.

Placing the primary responsibility for employee training and development on training staff only. The direct line supervisor and the employee should ultimately have the final responsibility for the employee's training and development. This is where you as a facilitator need to negotiate this role with the manager.

Lack of experience on the part of the trainer. This means that unqualified staff run programmes, which provide poor training that cannot be expected to be effective. As a facilitator you need to ensure qualified people are used. The Skills Development Act requires that a trainer must be at least one level more highly qualified than the delegates s/he is training.

Training and development undertaken with no specific purpose in mind. Training should be undertaken only when a definite need with regard to individuals or the enterprise in general has been identified.

Substituting training for selection. This might occur, for instance, when a manager tries to overcome an error in the recruitment of an employee by trying to train an unsuitable employee. Training seldom cures a poor recruitment effort.

Ill-timed employee assessment. Employers and trainers often evaluate an employee very soon after he has begun a new job, when he has not yet had time to settle down. Trainers and superiors may in such a case recommend and undertake additional training and development, which may be unnecessary.

Regarding training and development as an activity limited to courses only. Many trainers and employers forget that the work environment itself provides some of the best opportunities for job-related learning for employees, and consequently fail to realise the value of on-the-job and vestibule training.

Inadequate evaluation of solutions. A training programme is undertaken but is not properly assessed; further. Training programmes are then jeopardised because no real proof is found of the effectiveness of the programme.

Cost versus output. Training and development programmes often prosper in economically sound periods, but are axed during recessionary times. This happens because top management believes there is no actual monetary benefit derived from training and development programmes. It is up to skills facilitators to convince management that there is a constant need for training and development.

Management is too busy: They lack the time and conviction to motivate and support training and development specialists in developing and implementing effective training programmes. The result is that second-rate training is given.

Trainers/facilitators having no authority to enforce training needs. This results in Training managers not being given sufficient authority to do the job properly. This stems from the failure of top management to assess the contribution of training and development to the objectives of the enterprise.

Trying to change the personalities of the trainees. It is practically impossible to change the personality of an employee by training and development, and too much concern with the trainee's personality, coupled with too little emphasis on his performance may cause the training programme to fail.

On-and-off crash courses with no continued support and evaluation. Here training is seen as a sudden activity to solve an immediate problem with no forward planning. This greatly reduces the impact of this training.

Failing to prepare trainees. It is a mistake to assume that all employees are motivated to undergo training. This is often not the case, employees often do not understand why they should undergo training, and in such cases training cannot be expected to succeed.

Training with limited practical application only. Programmes are often devised with too much emphasis on theory and too little attention to on-the-job problems. If training is to be effective, it must link up with the actual job that the trainee does or will be doing.

Failing to introduce proper mentoring structures to ensure implementation of training.

From the above discussion it is clear why training is vital for any organisation, especially in view of the benefits, which can be derived from training and why it is essential for facilitators to ensure a culture of needs analysis prevails.

Barriers to Skills Development in SA

The following discussion will present some of the barriers associated with skills development in this country, however, it is critical to note that some of these barriers have already been addressed or are being addressed. This discussion is based on a report made by the Minister of Labour early this year (2006).

- South Africa has been rated as having one of the poorest human resource development records in comparison to other countries at equivalent stages of development. Problems in the schooling and university systems inherited from the past have contributed to this poor record. In addition, there has been a serious failure to address middle-level competency requirements in the society; this is evidenced by the decline in the apprenticeship system. Skills shortages at these and higher levels lead to inefficient enterprise operations.

- There has been a poor alignment of training programmes with social and economic strategies. The country's poor record in mathematics and science and the repeated failure of technical college graduates and those completing unemployment training programmes to find employment, is an example of the poor alignment of training programmes.

- In organisations, the level of structured industry training in South Africa is much lower than that of the country's major trading partners such as Japan, USA etc...

- The sectors in which most of our growth and employment opportunities are likely to occur in the future spend less on skills development than the national average.

- It is identified that most industry training is informal and a very small proportion of formal training is provided.
- There is a failure on the part of firms to recognise the importance of training within the new competitive environment and the need for training to be strategically integrated into their competitive strategies.
- Artisan training has declined dramatically and there is a shortage of high quality management.

Among the groups targeted by the skills development act the following problems have been noted:

- Programmes often take place outside of any clear employment framework
- Learning programmes are not linked to work experience
- Programmes are of too short a duration to impact meaningfully
- Basic education needs have not been linked to the development of applied competencies
- Entrepreneurial training is frequently divorced from specialised training
- Learners are not assisted to find employment after qualification
- Stereotyping and prejudiced attitudes towards people with disabilities and women have hindered their access to training opportunities.

These problems and the huge challenges facing South Africa in terms of employment, growth and development demand a new conceptual approach to skills development. The approach which informs the Skills Development Strategy is described in the next section.

Skills Development Barriers

It is important that barriers/blockages to staff development are identified and, where possible, eliminated. Possible barriers may include management resistance, staff apathy, financial constraints, and lack of available time to train and timing of training.

In responding to the key barriers in the skills development the Minister of Labour has also announced that such hindrances can be overcome if following is considered:

In relation to the country:

- A need to facilitate a general increase in the skills profile of the population, through accredited high quality education and training linked to the National Qualifications Framework
- The country has to increase the quality and quantity of intermediate level skills in the country
- To facilitate more efficient social and infrastructural delivery

- Relevant parties have to ensure that it raises the quality, relevance and cost-effectiveness of skills development throughout the country in order that the country achieves rising competency levels which promote economic and employment growth and social development.

In relation to companies:

- To facilitate more structured and targeted skills formation within enterprises
- To increase access by workers to education and training
- To increase the proportion of intermediate level skills in enterprises in order that workers achieve nationally recognised qualifications and are able to assume increased independence and responsibility, and employers achieve rising levels of productivity and competitiveness.

In relation to target groups:

- To support target groups to enter regular employment or to sustain micro-level income generating activities
- To support the establishment of viable small and micro enterprises
- To increase access to entry-level education and training in order that the people that is most vulnerable in the labour market, including those in micro enterprises, are able to enter and successfully remain in employment/self employment and enjoy a rising standard of living.

JIPSA

JIPSA is an initiative that identifies and facilitates the achievement of skills priorities in support of the Accelerated and Shared Growth – South Africa (AsgiSA) economic growth objectives.

JIPSA is not a new institution. It is structured to promote a specific short and medium term target limited to acquiring priority skills for economic growth.

HOW DO I GO ABOUT DECIDING WHETHER TO TRAIN OR NOT?

Assessing the difference between the required performance standard and the actual performance standard identifies training needs. This leaves a gap indicating the training need. It therefore entails a specific analysis of each worker's performance to determine training needs. The model proposed by Michalak & Yager (1979) and modified by Ivancevich & Glueck (1986) can be used to good effect to discuss this point.

Step 1 - Find performance discrepancies (behavioural discrepancies): As we have said the first step is to determine the performance gap. Only once this is done can one go on to the next step.

Step 2 - Cost benefit analysis: The trainer now needs to determine the cost and the value of training an employee. In other words, will it be worth the expense?

Step 3 - Does a "can't do" or "won't do" situation exist? It is important to establish whether the employee could do the job expected of him if he wanted to. To establish this, three questions need to be answered: -

a. Does the employee know what standard of performance is expected?

b. Could the employee do the job if he or she wanted to?

c. Does the employee want to do the job?

To answer these questions you will need to do a performance analysis on the employee.

The next six steps are focused on can't do problems.

Step 4 - Set the performance standard: If. The employee does not know what the standards are; his work will probably fall below it. Once the standard is established and explained to the employee, his performance will most probably improve.

Step 5 - Remove obstacles: Try to identify and eliminate any obstacles the employee may be encountering at present, which may be impeding effective performance.

Step 6 - Provide practice: When an employee has a means of practice, his or her performance will improve.

Step 7 - Training: If training is necessary, then provide it.

Step 8 - Change the job: It may be necessary to redesign the job by means of job enrichment or job simplification or possibly job enlargement.

Step 9 - Transfer or lay-off: If all else fails, it may be necessary to transfer the employee or terminate his or her services.

Step 10 - Create a motivational climate: It is often the case that an employee could do the job if he wanted to, but he does not want to. In this case a motivational problem exists. A motivational programme should be offered, and, depending on his behaviour after completing the course, he should be either rewarded or punished.

WHAT TRAINING AND DEVELOPMENT METHODS TO USE:

Development objectives should be devised in such a fashion so as to suggest training objectives for your organisation.

Responses of learners and feedback: The design and methods planned for a course should be determined by whether or not instructors can utilise a method to correct errors or reinforce the actual learning which takes place and by the extent to which managers or employees exposed to a learning situation can measure their own responses. The ideal training and development method would be where an instructor has the opportunity to observe and correct the development of an employee or a manager, giving them immediate feedback on their performances.

The instructor's Knowledge and level of skills: The instructor's level of competence comes to be revealed when feedback is brought to management indicating successes which are attributable to good

teaching. When success of a training and development programme is being assessed, management should be careful to disregard those successes, which are not due to instructor's teaching.

The **time available** for a specific training and development activity will often govern the method to be used, because some methods need a long period of time, while others can be executed within a very short space of time.

Flexible adaptation of methods: A particular method can sometimes be effectively used for different types of learning for employees and management. Although supervisors and managers, for example, come from different environments in an enterprise, specific methods can sometimes be used to cater for a variety of activities, for example programmed instruction, which is almost completely adaptable. When selecting methods, management should bear in mind that some learning methods are easier to apply and are readily adaptable with smaller groups of learners. For instance, the smaller the group, the easier it is for role-play exercises to satisfy learners' needs.

Costs play an important role in the **selection of a learning method**. In this instance four important elements need to be considered. When training and development programmes contain a variety of methods, particularly sophisticated ones, they can be very costly, and prohibitive.

Certain learning aids may be found to be too expensive to use even if they are considered as essential support for particular teaching methods. For instance, closed-circuit television is extremely expensive, and it is only justified where large groups of learners are involved on a continual basis. As a one-off exercise, the cost is usually prohibitive.

Items such as payment for the instructors and the costs of facilities need to be considered, as well as tuition fees, if learners attend external programmes.

Costs should be measured against the effectiveness they have in increasing performance of employees on the job.

TRAINING AND DEVELOPMENT METHODS

The above are generally broken into three broad categories:

On-the-job Training, which is training within the working environment, and focused on the job the employee, is doing.

Off the job training - courses conducted in external training centres with the emphasis on generic training and skills to be used in later business activities.

Organisational development. This is realised by changing individual and group behaviour towards a more effective organisation.

On the job methods of training:

1. Coaching
2. Job rotation
3. Job instruction training
4. Understudy
5. Apprenticeship training

Methods of off-the-job training

1. The case study
2. Role playing
3. In-basket training
4. Kepner-tregroe technique
5. Management games
6. Conference method
7. Brainstorming
8. Traditional study programmes
9. Non-traditional study programmes

Pilot and evaluate the framework

When you are responsible for program development, another important factor is to actually test the entire program.

One aspect of a program that is accepted by an organization is that it can be more easily promoted when there are results available to the curious or wary. A tested program is one that meets the stated objectives, proving that the instructional design is appropriate.

In preparing for the pilot include a description of the aim of the pilot and a listing of the factors on which feedback is needed. The following should be incorporated:

1. Pilot strategies and instruments should be developed and used effectively and in keeping with the aim of the pilot.
2. The pilot should makes use of representative samples of the framework and incorporate feedback from stakeholders and users.
3. Data should be recorded and collated accurately and organised for ease of evaluation.
4. The pilot should be conducted in accordance with the learning organisation's quality assurance requirements.
5. The pilot should reveal strengths and weaknesses of the framework in relation to the purpose of the framework and needs of the organisation.
6. Strengths and weaknesses in the design, accessibility, presentation and content.
7. Opportunities and mechanisms to improve upon the framework are identified and recorded for integration into framework revision.

Curriculum Planning Quality Checklist

	Curriculum planning quality checklist	Yes	Unsure	No
1	Have the organisation's long-term vision and mission, and strategic short-term goals been taken into consideration into account in the planning process?			
2	Have the key competencies and skill needs and priorities been identified?			
3	Have all the relevant stakeholders been consulted before planning commences? (Learners, SETAs, ETD Practitioners, Training Committee, Managers etc)			
4	Have national unit standards been considered in the design plan?			
5	Does the curriculum plan support the development of the "critical cross-field outcomes"?			
6	Has a quality assurance system been built into the curriculum?			
7	Does the assessment component of the curriculum comply with the guiding principles set by SAQA?			

Recording the Evaluation

The curriculum, the evaluation and the results of the ETD interventions included in the curriculum and framework must be accurately recorded in the organisation's files. This information should be available to the HR personnel, the skills development facilitator and the training committee.

The new education, training and development system in South Africa, driven by SAQA and the Skills Development Acts, depends on a sound recording system. The annual workplace skills development report, which an organisation must submit to the relevant SETA, requires much detailded information about the organisation's training and development activities and expenditures. This information is vital in order for the employer to claim back the levy grant from the SETA.

Conducting a SWOT Analysis

Having considered your organisations vision, mission, strategic direction and values, what do you regard your organisation's strengths and weaknesses and opportunities and threats (SWOT) in development with particular consentration on design, accessiblity, presentation and conent.

Strengths; e.g.

- What benefits does your development framework offer?
- What makes your development framework better than others?
- What do stakeholders see as your strengths?

Weaknesses; e.g.

- What needs to be improved?
- What should be avoided?
- What do stakeholders see as your weaknesses?

Opportunities; e.g.

- What are the opportunities facing your development framework?
- What are the changes in social patterns, population profiles, and lifestyle changes?
- What are interesting trends in its environment?

Threats; e.g.

- What obstacles do you face?
- What trends could cause harm to your development framework?
- What threats do its weaknesses pose?

Strengths	Weaknesses
Opportunities	Threats

Creating A Brief/Proposal

Introduction

The purpose of a proposal is to persuade and inspire the reader to take action. A successful proposal does that by connecting to the values of the organization.

There is no simple formula or secret to writing a successful proposal. Government proposals are normally long and based on very specific criteria. Corporate proposals are generally much shorter (unless you work for the government of course!), but in either case your proposal can be eliminated if it does not comply with the rules that either organization has established for proposals, or if you do not present a compelling case.

Fundamentals for Writing Internal Proposals

Know your audience.

Proposal writing must be concise and focused. In order to write that way, you must know your audience. There may be several levels of management that will review your proposal, but remember that you are not writing for each of those individuals, but rather for the organization. This means you must reflect the values and strategic vision of the organization, not the individuals.

Research and rapport.

Crafting your proposal is just one part of actually obtaining an approval. In an ideal case, you will have already established a rapport with your executive and have provided them with meaningful information from your initial training needs analysis (TNA) and the work that went into that. Then, those individuals are not going to be surprised to see a proposal from you.

Your reputation is built on the quality of your work, and so your executive should be ready and waiting to receive your proposal, interested in what you are presenting, and even keenly waiting for it. The proposal can actually stand alone as a summary to the conversations that you have had, when approval is almost guaranteed and your proposal is a follow up mechanism.

Be clear on your goals.

The way that you state your understanding of how the training meets the needs of the organization and strengthens its position in the industry or marketplace strengthens your appeal. Consider your key message, and present it clearly and concisely.

Introduce what issues will be resolved and what impact this has on the organization. Prove that the issue exists through relevant statistics, studies, etc. Anecdotal reports are not sufficient.

Include a budget that details exactly how much money, time, and additional resources are needed to develop and roll out the training program, and within what time frame. Do not fudge any numbers.

Describe the goals of the program clearly, including the proposed objectives, methodology, and format that you plan to utilize.

Detail realistic, measured objectives. What exactly do you want to do and what are the anticipated outcomes if you receive approval? For example, how many more clients do you hope to serve per year, and how will this increased capacity impact the organization overall?

Craft a compelling 'Ask.'

This section is where your persuasion skills are called on. Word this in a way that the reader not only knows exactly what they need (notice this is not exactly what you want; the proposal outlines benefits to the organization, not benefits to the program designer).

Include a brief outline of the negative impact of not approving or supporting the program.

The make it or break it section.

We mentioned earlier that a proposal written for an organization should really be a summary of conversations that you have already had. Depending on the makeup of the organization or the speed with which the training must be undertaken, it is possible that you may not have had all the conversations you need with the right people. What if the plan is extensive and has to be sent, for example, to an international committee for approval? This is where the make it or break it section of your proposal comes it; the Executive Summary.

Executive Summary

An executive summary is NOT an abstract (or summary) of your proposal. It is a clear, concise piece of your best writing. It is written before the rest of the proposal, to ensure that the rest of the information supports what is contained in the executive summary. The executive summary is written using language and style directed toward the executive with the authority to approve your proposal. It does not contain technical jargon or abbreviations. Its focus is to substantiate the benefits of the proposal to the reader.

The goal of the executive summary is to convince the executive reader that this program is exactly what the company needs and wants. The executive summary is a very persuasive piece of writing that describes three to five strong characteristics of the program (known as the unique selling proposition or USP) and a call to action.

An executive summary is normally no more than 12% of the size of your entire proposal.

Executive Summaries vs. Abstracts

In a corporate proposal like this, an abstract is not normally necessary (although it depends on the size of your proposal). An abstract is a summary of the main points of the proposal, and its intent is to stimulate the reader to jump in and read the entire proposal. Its intent and purpose are distinctly different from an executive summary.

Brief/Proposal Checklist

A brief or proposal should have each of these elements.

Name of Training Program	
Compelling and persuasive executive summary	
Subject	
Training Need Justification (Needs assessment, grant requirements, licensing requirements)	
Stakeholders and Role-Players Involved	
Target Audience(s)	
Learning Objectives	
Learning Outcomes	
Instructional design	
Methodology	
Format	
Time (hours)	
Duration (when offered)	
Dates (if applicable)	

Continuing Education Credits	
Authorizations Required (Program Level, Division Level, Board Level)	
Research and rapport completed	
Goals clearly stated	
Budget	
Other	

Self Assessment

Self Assessment:

You have come to the end of this module – please take the time to review what you have learnt to date, and conduct a self assessment against the learning outcomes of this module by following the instructions below:

Rate your understanding of each of the outcomes listed below :

Keys : ✖ - no understanding

● - some idea

✓ - completely comfortable

NO	OUTCOME	SELF RATING		
		✖	●	✓
SO1	Preparing for framework development			
SO2	Designing the framework.			
SO3	Developing the framework content			
SO4	Piloting and evaluating the framework.			

Chapter 4
Supervise and Manage Project Teams

Learning Outcomes:

The following learning outcomes are covered in this module.

- ✓ Discussing and explaining the appropriateness of the various organisational structures.
- ✓ Supervising and monitoring a developmental project team.
- ✓ Reporting progress on a developmental project.
- ✓ Identifying and rectifying problems occurring in a developmental project.
- ✓ Setting up, running and closing a developmental project.
- ✓ Undertaking the management activities, from start to end, for a small project

Various Organisational Structures

One of the most challenging tasks of a business may be organizing the people who perform its work. A business may begin with one person doing all the necessary tasks. As the business becomes successful and grows, however, there is generally more work, and more people are needed to perform various tasks. Through this division of work, individuals can become specialists at a specific job. Because there are several people—often in different locations—working toward a common objective, "there must be a plan showing how the work will be organized.

The plan for the systematic arrangement of work is the *organization structure*. Organization structure is comprised of functions, relationships, responsibilities, authorities, and communications of individuals within each department" (Sexton, 1970, p. 23).

The typical depiction of structure is the organizational chart. The formalized organizational chart has been around since 1854, when Daniel McCallum became general superintendent of the New York and Erie Railroad—one of the world's longest railroads. According to McCallum, since the railroad was one of the longest, the operating costs per mile should be less than those of shorter railroad lines. However, this was not the case. To remedy management inefficiencies, McCallum designed the first organizational chart in order to create a sense of structure.

The organizational chart has been described as looking like a tree, with the roots representing the president and the board of directors, while the branches symbolize the various departments and the leaves depict the staff workers. The result of the organizational chart was a clear line of authority showing where subordinates were accountable to their immediate supervisors (Chandler, 1988, p. 156).

An **organizational structure** consists of activities such as task allocation, coordination and supervision, which are directed towards the achievement of organizational aims. It can also be considered as the viewing glass or perspective through which individuals see their organization and its environment.

Many organizations have hierarchical structures, but not all.Organizations are a variant of clustered entities.

An organization can be structured in many different ways, depending on their objectives. The structure of an organization will determine the modes in which it operates and performs.

Organizational structure allows the expressed allocation of responsibilities for different functions and processes to different entities such as the branch, department, workgroup and individual.

Organizational structure affects organizational action in two big ways. First, it provides the foundation on which standard operating procedures and routines rest. Second, it determines which individuals get to participate in which decision-making processes, and thus to what extent their views shape the organization’s actions

Organizational structure types

Traditional Structures

Traditional organizational structures focus on the functions, or departments, within an organization, closely following the organization's customs and bureaucratic procedures. These structures have clearly defined lines of authority for all levels of management. Two traditional structures are *line* and *line-and-staff*.

Line Structure

The line structure is defined by its clear chain of command, with final approval on decisions affecting the operations of the company still coming from the top down (Figure 1). Because the line structure is most often used in small organizations—such as small accounting offices and law firms, hair salons, and "mom-and-pop" stores—the president or CEO can easily provide information and direction to subordinates, thus allowing decisions to be made quickly (Boone and Kurtz, 1993, p. 259).

Line structures by nature are fairly informal and involve few departments, making the organizations highly decentralized. Employees are generally on a first-name basis with the president, who is often available throughout the day to answer questions and/or to respond to situations as they arise. It is common to see the president or CEO working alongside the subordinates. Because the president is often responsible for wearing many "hats" and being responsible for many activities, she or he cannot be an expert in all areas.

Line-and-Staff Structure

While the line structure would not be appropriate for larger companies, the line-and-staff structure is applicable because it helps to identify a set of guidelines for the people directly involved in completing the organization's work. This type of structure combines the flow of information from the line structure with the staff departments that service, advise, and support them (Boone and Kurtz, 1993, p. 259).

Line departments are involved in making decisions regarding the operation of the organization, while staff areas provide specialized support. The line-and-staff organizational structure "is necessary to provide specialized, functional assistance to all managers, to ensure adequate checks and balances, and to maintain accountability for end results" (Allen, 1970, p. 63).

An example of a line department might be the production department because it is directly responsible for producing the product. A staff department, on the other hand, has employees who advise and assist—making sure the product gets advertised or that the customer service representative's computer is working (Boone and Kurtz, 1993, p. 259).

Based on the company's general organization, line-and-staff structures generally have a centralized chain of command. The line-and-staff managers have direct authority over their subordinates, but staff

managers have no authority over line managers and their subordinates. Because there are more layers and presumably more guidelines to follow in this type of organization, the decision-making process is slower than in a line organization. The line-and-staff organizational structure is generally more formal in nature and has many departments.

Pre-bureaucratic structures

Pre-bureaucratic (entrepreneurial) structures lack standardization of tasks. This structure is most common in smaller organizations and is best used to solve simple tasks. The structure is totally centralized. The strategic leader makes all key decisions and most communication is done by one on one conversations. It is particularly useful for new (entrepreneurial) business as it enables the founder to control growth and development.

They are usually based on traditional domination or charismatic domination in the sense of Max Weber's tripartite classification of authority

Bureaucratic structures

Weber (1948, p. 214) gives the analogy that “the fully developed bureaucratic mechanism compares with other organizations exactly as does the machine compare with the non-mechanical modes of production. Precision, speed, unambiguity, … strict subordination, reduction of friction and of material and personal costs- these are raised to the optimum point in the strictly bureaucratic administration.” Bureaucratic structures have a certain degree of standardization. They are better suited for more complex or larger scale organizations, usually adopting a tall structure.

The tension between bureaucratic structures and non-bureaucratic is echoed in Burns and Stalker'sdistinction between mechanistic and organic structures.

The Weberian characteristics of bureaucracy are:

- Clear defined roles and responsibilities
- A hierarchical structure
- Respect for merit.

Post-bureaucratic

The term of post bureaucratic is used in two senses in the organizational literature: one generic and one much more specific. In the generic sense the term post bureaucratic is often used to describe a range of ideas developed since the 1980s that specifically contrast themselves with Weber's ideal type bureaucracy. This may include total quality management,culture management and matrix management, amongst others. None of these however has left behind the core tenets of Bureaucracy. Hierarchies still exist, authority is still Weber's rational, legal type, and the organization is still rule bound. Heckscher, arguing along these lines, describes them as cleaned up bureaucracies, rather than a

fundamental shift away from bureaucracy. Gideon Kunda, in his classic study of culture management at 'Tech' argued that 'the essence of bureaucratic control - the formalisation, codification and enforcement of rules and regulations - does not change in principle.....it shifts focus from organizational structure to the organization's culture'.

Another smaller group of theorists have developed the theory of the Post-Bureaucratic Organization., provide a detailed discussion which attempts to describe an organization that is fundamentally not bureaucratic. Charles Heckscher has developed an ideal type, the post-bureaucratic organization, in which decisions are based on dialogue and consensus rather than authority and command, the organization is a network rather than a hierarchy, open at the boundaries (in direct contrast to culture management); there is an emphasis on meta-decision making rules rather than decision making rules. This sort of horizontal decision making by consensus model is often used in housing cooperatives, other cooperatives and when running anon-profit or community organization. It is used in order to encourage participation and help to empower people who normally experience oppression in groups.

Still other theorists are developing a resurgence of interest in complexity theory and organizations, and have focused on how simple structures can be used to engender organizational adaptations. For instance, Miner *et al.* (2000) studied how simple structures could be used to generate improvisational outcomes in product development. Their study makes links to simple structures and improviseal learning. Other scholars such as Jan Rivkin and Sigglekow, and Nelson Repenning revive an older interest in how structure and strategy relate in dynamic environments.

Functional structure

Definition

Functional organization is structure in which authority rests with the functional heads; the structure is sectioned by departmental groups.

Functional organization is structure in which authority rests with the functional heads; the structure is sectioned by departmental groups.

Employees within the functional divisions of an organization tend to perform a specialized set of tasks, for instance the engineering department would be staffed only with software engineers. This leads to operational efficiencies within that group. However it could also lead to a lack of communication between the functional groups within an organization, making the organization slow and inflexible.

As a whole, a functional organization is best suited as a producer of standardized goods and services at large volume and low cost. Coordination and specialization of tasks are centralized in a functional structure, which makes producing a limited amount of products or services efficient and predictable. Moreover, efficiencies can further be realized as functional organizations integrate their activities vertically so that products are sold and distributed quickly and at low cost.

For instance, a small business could start making the components it requires for production of its products instead of procuring it from an external organization.But not only beneficial for organization but also for employees faiths.

What are some advantages of the functional structure?

- Simple and clear; coordination left to top management
- Reduces overhead
- Provides clearly marked career paths for hiring and promotion
- Employees work alongside colleagues who share similar interests

What are some disadvantages of the functional structure?

- Coordination of functional tasks is difficult; little reward for cooperation with other groups since authority resides with functional supervisor.
- Provides scope for different department heads to pass-off company project failures as being due to the failures of other departments.

Project Team Structure

Project team structure consists of an autonomous project team, existing independently of the rest of the organization. The project team is assembled for a specific project under the action of the product manager. The team is thus temporary and will be disbanded when its project is complete.

Sometimes we can find design or products with special requirements that are not encompassed within one or more of the functions. This will lead to a cooperative efforts of marketing, production, engineering, and others as appropriate; as well as assistance from the accounting legal, and contracting staffs. When it is an important new effort, a dynamic and capable person from the upper levels of middle management is selected to take responsibility for this unique activity. A project is organized around this project manager, and then a few specialized assistants are provided and a project team is formed. The project manager exercises direct and autonomous control over the various discipline groups and is responsible for the coordination and monitoring of the effort of the team. Since most major organizational functions will be affected by this team, it is typically removed from the functional organization’s structure.

A multiple project organization is needed when the number of projects increases. There is a definite limit to the number of major projects any traditional organization can support. As the number of projects increases the managerial load on the general manager increases to the point where he can no longer cope.

Advantages of project team structures

- Good at responding well to an immediate project need.
- Flexibility
- Responsibility for success of project clearly identified.
- Releases top management from micromanaging operations, so that the management can focus on the overall company strategy rather than detailed nuts and bolts.

Disadvantages of project team structures

- The actual organizational power and authority of the team manager may be a delicate issue.
- Greater administrative overhead.
- In-group vs. Out-group mentality may develop.

Divisional structure

Also called a "product structure", the divisional structure groups each organizational function into a division. Each division within a divisional structure contains all the necessary resources and functions within it. Divisions can be categorized from different points of view. One might make distinctions on a geographical basis (a US division and an EU division, for example) or on product/service basis (different products for different customers: households or companies). In another example, an automobile company with a divisional structure might have one division for SUVs, another division for subcompact cars, and another division for sedans.

Each division may have its own sales, engineering and marketing departments.

Matrix structure

A variation of the line-and-staff organizational structure is the matrix structure. In today's workplace, employees are hired into a functional department (a department that performs a specific type of work, such as marketing, finance, accounting, and human resources) but may find themselves working on projects managed by members of another department. Organizations arranged according to project are referred to as matrix organizations. Matrix organizations combine both vertical authority relationships (where employees report to their functional manager) and horizontal, or diagonal, work relationships (where employees report to their project supervisor for the length of the project). "Workers are accountable to two supervisors—one functional manger in the department where the employee regularly works and one special project manager who uses the employee's services for a varying period of time" (Keeling and Kallaus, 1996,p. 43).

Since employees report to two separate managers, this type of organizational structure is difficult to manage—especially because of conflicting roles and shared authority. Employees' time is often split between departments and they can become easily frustrated if each manager requires extra efforts to complete projects on similar time-lines.

Because the matrix structure is often used in organizations using the line-and-staff setup, its also fairly centralized. However, the chain of command is different in that an employee can report to one or more managers, but one manager typically has more authority over the employee than the other manager(s). Within the project or team unit, decision making can occur faster than in a line-and-staff structure, but probably not as quickly as in a line structure. Typically, the matrix structure is more informal than line-and-staff structures but not as informal as line structures

The matrix structure groups employees by both function and product. This structure can combine the best of both separate structures.

A matrix organization frequently uses teams of employees to accomplish work, in order to take advantage of the strengths, as well as make up for the weaknesses, of functional and decentralized forms. Matrix structure is amongst the purest of organizational structures, a simple lattice emulating order and regularity demonstrated in nature.

Weak/Functional Matrix: A project manager with only limited authority is assigned to oversee the cross- functional aspects of the project. The functional managers maintain control over their resources and project areas.

Balanced/Functional Matrix: A project manager is assigned to oversee the project. Power is shared equally between the project manager and the functional managers.

It brings the best aspects of functional and projectized organizations. However, this is the most difficult system to maintain as the sharing power is delicate proposition.

Strong/Project Matrix: A project manager is primarily responsible for the project. Functional managers provide technical expertise and assign resources as needed.

Among these matrixes, there is no best format; implementation success always depends on organization's purpose and function.

Advantages of the matrix organization

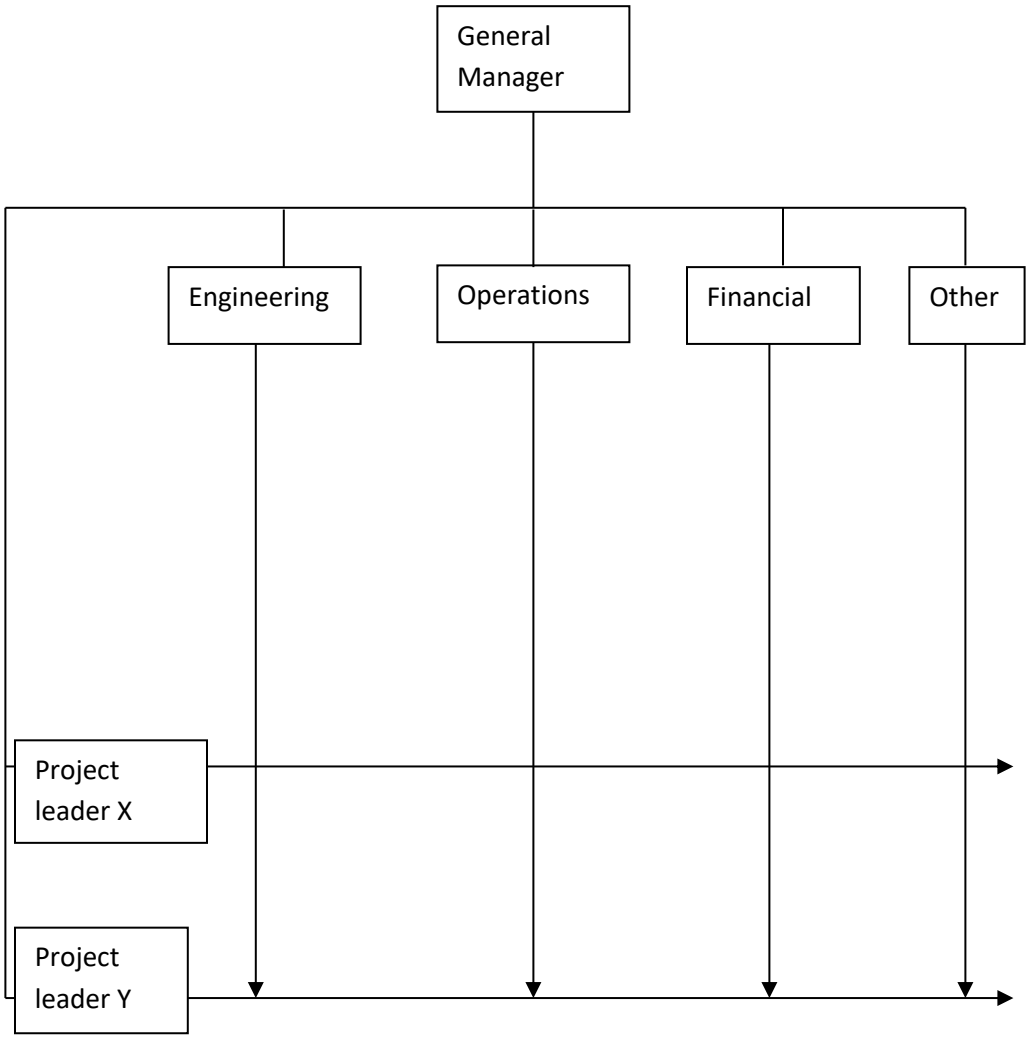
- It attempts to retain the benefits of both structures (functional organization and project team structure).
- Coordinates resources in a way that applies them effectively to different projects.
- Staff can retain membership on teams and their functional department colleagues.

Disadvantages of the matrix organization

- Potential for conflict between functional vs. project groups.
- Greater administrative overhead.
- Increase in managerial overhead

Ground rules for matrix development

- Participants must spend full time on the project, this ensures a degree of loyalty.
- Horizontal as well as vertical channels must exist for making commitments.
- There must be quick and effective methods for conflict resolution.
- There must be good communication channels and free access between managers.
- All managers must have an input into the planning process.
- Both horizontally – and vertically – oriented managers must be willing to negotiate for resources.
- The horizontal line must be permitted to operate as a separate entity except for administrative purposes.
- The project leader maintains maximum project control (through line managers) over all resources, including cost and personnel.
- The project leader has the authority to commit company resources, provided that they do not contradict company policies and procedures.
- The functional organisations exist primarily as support for the project.



Centralization

Organizations with a centralized structure have several layers of management that control the company by maintaining a high level of authority, which is the power to make decisions concerning business activities. With a centralized structure, line-and-staff employees have limited authority to carry something out without prior approval. This organizational structure tends to focus on top-down management, whereby executives at the top communicate by telling middle managers, who then tell first-level managers, who then tell the staff what to do and how to do it. Since this organizational structure tends to be

fairly bureaucratic, employees have little freedom. Centralized organizations are known for decreased span of control—a limited number of employees report to a manager, who then reports to the next management level, and so on up the ladder to the CEO.

Decentralization

Because individual creativity can be stifled and management costs can be greater in a centralized organization, many organizations continue to downsize into a more decentralized structure. Decentralization seeks to eliminate the unnecessary levels of management and to place authority in the hands of first-line managers and staff— thus increasing the span of control, with more employees reporting to one manager. Because more employees are reporting to a single manager than before, the managers are forced to delegate more work and to hold the employees more accountable. Downsizing has also helped to change the flow of communication, so that top management hears staff concerns and complaints in a more direct manner and management has a more hands-on approach. The hands-on approach involves less bureaucracy, which means there is a faster response to situations that demand immediate attention. This structure also takes advantage of bottom-up communication, with staff issues being addressed in a timely manner.

The restructuring generally takes place at the mid-management level. Because some middle managers have lost their jobs, been laid off, or simply taken advantage of early retirement and severance packages, their positions have been phased out, thus helping to reduce unnecessary costly salaries and increasing employee span of control. Many middle managers who stayed in their current "positions" found that their jobs have changed to being coaches, or team leaders, who allow their employees greater freedom in completing their work responsibilities (Csoka, 1995, p. 3).

The chain of command is the protocol used for communication within organizations. It provides a clear picture of who reports to whom. Quick decisions can be made in decentralized organizations because approval usually has to come only from the manager one level higher than the person making the decision. The chain of command involves line-and-staff employees, where the staff's job is completing the actual work and the line functions to oversee the staff.

Departmentalization

Organizations can be divided into various departments, or units, with individuals who specialize in a given area, such as marketing, finance, sales, and so forth. Having each unit perform specialized jobs is known as *departmentalization*. Departmentalization is done according to five major categories (Figure 6): (1) *product*, which requires each department to be responsible for the product being manufactured; (2) *geographic*, which divides the organization based on the location of stores and offices; (3) *customer*, which
separates departments by customer type—for example, textbook companies that cater to both grade schools and community colleges; (4) *functional*, which breaks departments into specialty areas; and (5) *process*, which creates departments responsible for various steps in the production process (Boone and Kurtz, 1993).

Organizational circle: moving back to flat

The flat structure is common in enterprenerial start-ups, university spin offs or small companies in general. As the company grows, however, it becomes more complex and hierarchical, which leads to an expanded structure, with more levels and departments.

Often, it would result in bureaucracy, the most prevalent structure in the past. It is still, however, relevant in former Soviet Republics and China, as well as in most governmental organizations all over the world. Shell Group used to represent the typical bureaucracy: top-heavy and hierarchical. It featured multiple levels of command and duplicate service companies existing in different regions. All this made Shell apprehensive to market changes, leading to its incapacity to grow and develop further. The failure of this structure became the main reason for the company restructuring into a matrix.

Starbucks is one of the numerous large organizations that successfully developed the matrix structure supporting their focused strategy. Its design combines functional and product based divisions, with employees reporting to two heads. Creating a team spirit, the company empowers employees to make their own decisions and train them to develop both hard and soft skills. That makes Starbucks one of the best at customer service.

Some experts also mention the multinational design, common in global companies, such as Procter & Gamble, Toyota and Unilever. This structure can be seen as a complex form of the matrix, as it maintains coordination among products, functions and geographic areas.

In general, over the last decade, it has become increasingly clear that through the forces of globalization, competition and more demanding customers, the structure of many companies has become flatter, less hierarchical, more fluid and even virtual.

Team

One of the newest organizational structures developed in the 20th century is *team*. In small businesses, the team structure can define the entire organization. Teams can be both horizontal and vertical. While an organization is constituted as a set of people who synergize individual competencies to achieve newer dimensions, the quality of organizational structure revolves around the competencies of teams in totality. For example, every one of the Whole Foods Market stores, the largest natural-foods grocer in the US developing a focused strategy, is an autonomous profit centre composed of an average of 10 self-managed teams, while team leaders in each store and each region are also a team.

Larger bureaucratic organizations can benefit from the flexibility of teams as well. Xerox, Motorola, and DaimlerChrysler are all among the companies that actively use teams to perform tasks.

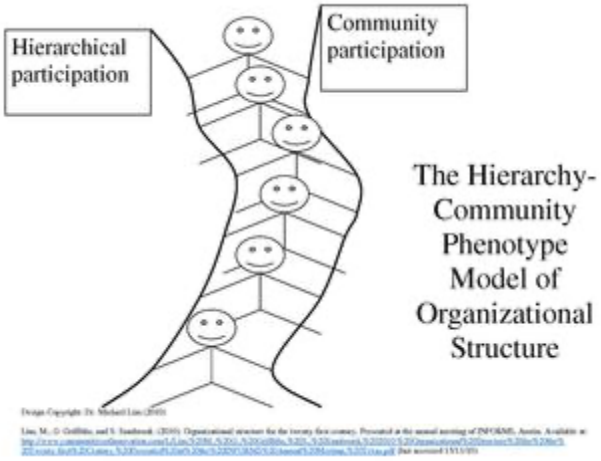
Network

Another modern structure is network. While business giants risk becoming *too clumsy to proact (such as), act and react efficiently*, the new network organizations contract out any business function, that can be done better or more cheaply. In essence, managers in network structures spend most of their time coordinating and controlling external relations, usually by electronic means. H&M is outsourcing its clothing to a network of 700 suppliers, more than two-thirds of which are based in low-cost Asian countries. Not owning any factories, H&M can be more flexible than many other retailers in lowering its costs, which aligns with its low-cost strategy. The potential management opportunities offered by recent advances in complex networks theory have been demonstrated including applications to product design and development, and innovation problem in markets and industries.

Virtual

A special form of boundaryless organization is *virtual*. Hedberg, Dahlgren, Hansson, and Olve (1999) consider the virtual organization as not physically existing as such, but enabled by software to exist.[1] The virtual organization exists within a network of alliances, using the Internet. This means while the core of the organization can be small but still the company can operate globally be a market leader in its niche. According to Anderson, because of the unlimited shelf space of the Web, the cost of reaching niche goods is falling dramatically. Although none sell in huge numbers, there are so many niche products that collectively they make a significant profit, and that is what made highly innovative Amazon.com so successful.

Hierarchy-Community Phenotype Model of Organizational Structure



Hierarchy-Community Phenotype Model of Organizational Structure

In the 21st century, even though most, if not all, organizations are not of a pure hierarchical structure, many managers are still blind-sided to the existence of the flat community structure within their organizations.

The business firm is no longer just a place where people come to work. For most of the employees, the firm confers on them that sense of belonging and identity- the firm has become their “village”, their community. The business firm of the 21st century is not just a hierarchy which ensures maximum efficiency and profit; it is also the community where people belong to and grow together- where their affective and innovative needs are met.

Lim, Griffiths, and Sambrook (2010) developed the Hierarchy-Community Phenotype Model of Organizational Structure borrowing from the concept of Phenotype from genetics. "A phenotype refers to the observable characteristics of an organism. It results from the expression of an organism’s genes and the influence of the environment. The expression of an organism’s genes is usually determined by pairs of alleles. Alleles are different forms of a gene. In our model, each employee’s formal, hierarchical participation and informal, community participation within the organization, as influenced by his or her environment, contributes to the overall observable characteristics (phenotype) of the organization. In other words, just as all the pair of alleles within the genetic material of an organism determines the physical characteristics of the organism, the combined expressions of all the employees’ formal hierarchical and informal community participation within an organization give rise to the organizational structure. Due to the vast potentially different combination of the employees’ formal hierarchical and informal community participation, each organization is therefore a unique phenotype along a spectrum between a pure hierarchy and a pure community (flat) organizational structure."

What is Project Management?

The management of construction projects requires knowledge of modern management as well as an understanding of the design and construction process. Construction projects have a specific set of objectives and constraints such as a required time frame for completion. While the relevant technology, institutional arrangements or processes will differ, the management of such projects has much in common with the management of similar types of projects in other specialty or technology domains such as aerospace, pharmaceutical and energy developments.

Generally, project management is distinguished from the general management of corporations by the mission-oriented nature of a project. A project organization will generally be terminated when the mission is accomplished. According to the Project Management Institute, the discipline of project management can be defined as follows:

Project management is the art of directing and coordinating human and material resources throughout the life of a project by using modern management techniques to achieve predetermined objectives of scope, cost, time, quality and participation satisfaction.

By contrast, the general management of business and industrial corporations assumes a broader outlook with greater continuity of operations. Nevertheless, there are sufficient similarities as well as differences between the two so that modern management techniques developed for general management may be adapted for project management.

The basic ingredients for a project management framework may be represented schematically in Figure 2-1.

A working knowledge of general management and familiarity with the special knowledge domain related to the project are indispensable. Supporting disciplines such as computer science and decision science may also play an important role. In fact, modern management practices and various special knowledge domains have absorbed various techniques or tools which were once identified only with the supporting disciplines. For example, computer-based information systems and decision support systems are now common-place tools for general management. Similarly, many operations research techniques such as linear programming and network analysis are now widely used in many knowledge or application domains. Hence, the representation in Figure 2-1 reflects only the sources from which the project management framework evolves.

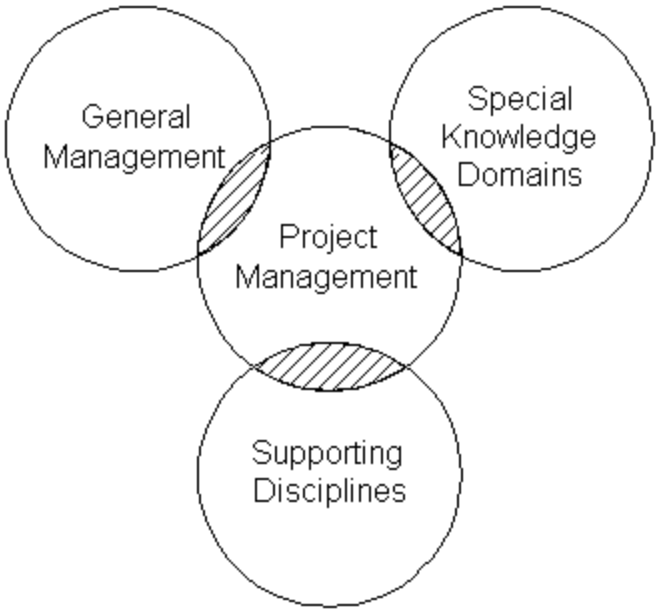


Figure 2-1: Basic Ingredients in Project Management

Specifically, project management in construction encompasses a set of objectives which may be accomplished by implementing a series of operations subject to resource constraints. There are potential conflicts between the stated objectives with regard to scope, cost, time and quality, and the constraints imposed on human material and financial resources. These conflicts should be resolved at the onset of a project by making the necessary tradeoffs or creating new alternatives. Subsequently, the functions of project management for construction generally include the following:

1. Specification of project objectives and plans including delineation of scope, budgeting, scheduling, setting performance requirements, and selecting project participants.
2. Maximization of efficient resource utilization through procurement of labor, materials and equipment according to the prescribed schedule and plan.
3. Implementation of various operations through proper coordination and control of planning, design, estimating, contracting and construction in the entire process.
4. Development of effective communications and mechanisms for resolving conflicts among the various participants.

The Project Management Institute focuses on nine distinct areas requiring project manager knowledge and attention:

1. Project integration management to ensure that the various project elements are effectively coordinated.
2. Project scope management to ensure that all the work required (and only the required work) is included.
3. Project time management to provide an effective project schedule.
4. Project cost management to identify needed resources and maintain budget control.
5. Project quality management to ensure functional requirements are met.
6. Project human resource management to development and effectively employ project personnel.

7. Project communications management to ensure effective internal and external communications.
8. Project risk management to analyze and mitigate potential risks.
9. Project procurement management to obtain necessary resources from external sources.

These nine areas form the basis of the Project Management Institute's certification program for project managers in any industry.

Trends in Modern Management

In recent years, major developments in management reflect the acceptance to various degrees of the following elements:

(1) the management process approach,

(2) the management science and decision support approach,

(3) the behavioral science approach for human resource development, and

(4) sustainable competitive advantage. These four approaches complement each other in current practice, and provide a useful groundwork for project management.

The management process approach emphasizes the systematic study of management by identifying management functions in an organization and then examining each in detail. There is general agreement regarding the functions of planning, organizing and controlling. A major tenet is that by analyzing management along functional lines, a framework can be constructed into which all new management activities can be placed.

Thus, the manager's job is regarded as coordinating a process of interrelated functions, which are neither totally random nor rigidly predetermined, but are dynamic as the process evolves. Another tenet is that management principles can be derived from an intellectual analysis of management functions. By dividing the manager's job into functional components, principles based upon each function can be extracted. Hence, management functions can be organized into a hierarchical structure designed to improve operational efficiency, such as the example of the organization for a manufacturing company shown in Figure 2-2.

The basic management functions are performed by all managers, regardless of enterprise, activity or hierarchical levels. Finally, the development of a management philosophy results in helping the manager to establish relationships between human and material resources. The outcome of following an established philosophy of operation helps the manager win the support of the subordinates in achieving organizational objectives.

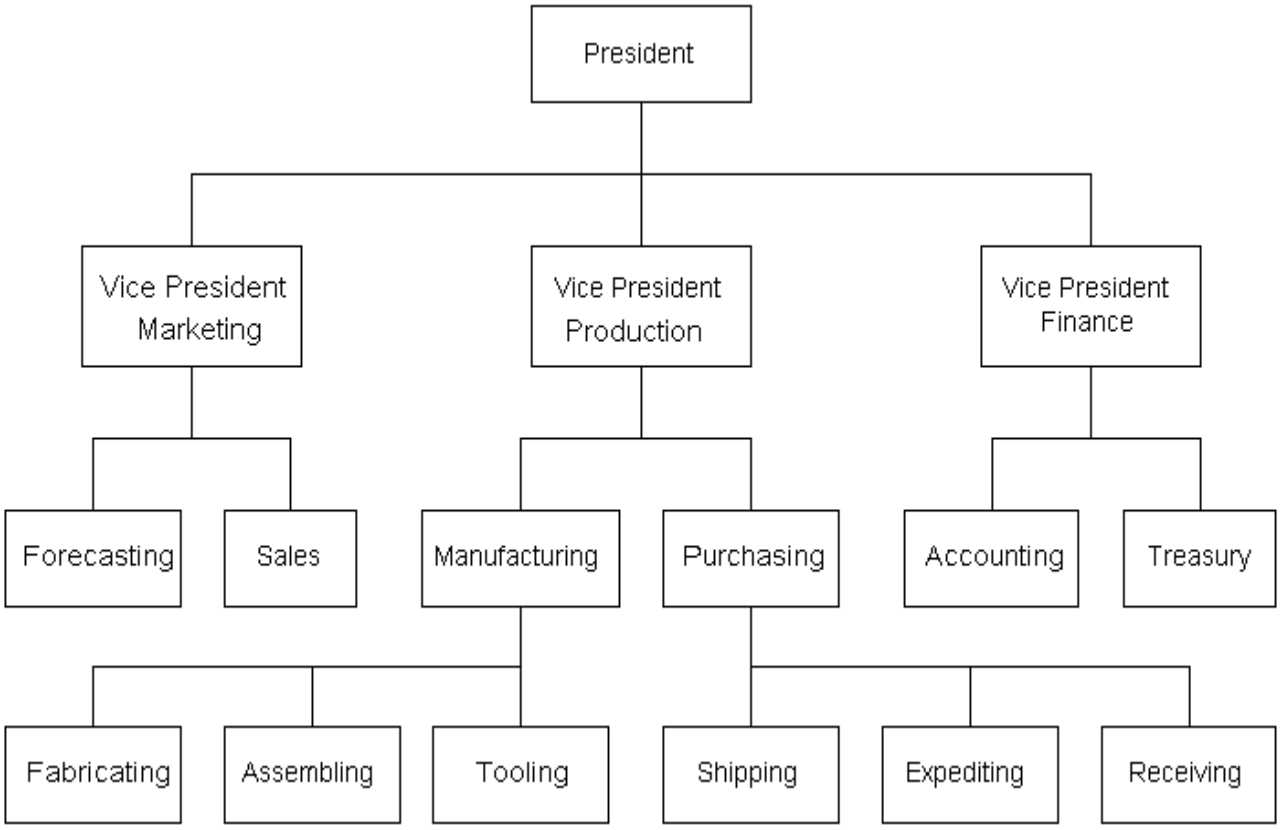


Figure 2-2: Illustrative Hierarchical Structure of Management Functions

The management science and decision support approach contributes to the development of a body of quantitative methods designed to aid managers in making complex decisions related to operations and production. In decision support systems, emphasis is placed on providing managers with relevant information. In management science, a great deal of attention is given to defining objectives and constraints, and to constructing mathematical analysis models in solving complex problems of inventory, materials and production control, among others. A topic of major interest in management science is the maximization of profit, or in the absence of a workable model for the operation of the entire system, the suboptimization of the operations of its components. The optimization or suboptimization is often achieved by the use of operations research techniques, such as linear programming, quadratic programming, graph theory, queuing theory and Monte Carlo simulation.

In addition to the increasing use of computers accompanied by the development of sophisticated mathematical models and information systems, management science and decision support systems have played an important role by looking more carefully at problem inputs and relationships and by promoting goal formulation and measurement of performance. Artificial intelligence has also begun to be applied to provide decision support systems for solving ill-structured problems in management.

The behavioral science approach for human resource development is important because management entails getting things done through the actions of people. An effective manager must understand the importance of human factors such as needs, drives, motivation, leadership, personality, behavior, and work groups. Within this context, some place more emphasis on interpersonal behavior which focuses on the individual and his/her motivations as a socio-psychological being; others emphasize more group behavior in recognition of the organized enterprise as a social organism, subject to all the attitudes, habits, pressures and conflicts of the cultural environment of people. The major contributions made by the behavioral scientists to the field of management include: (1) the formulation of concepts and explanations about individual and group behavior in the organization, (2) the empirical testing of these concepts methodically in many different experimental and field settings, and (3) the establishment of actual managerial policies and decisions for operation based on the conceptual and methodical frameworks.

Sustainable competitive advantage stems primarily from good management strategy. As Michael Porter of the Harvard Business School argues:

Strategy is creating fit among a company's activities. The success of a strategy depends on doing many things well - not just a few - and integrating among them. If there is no fit among activites, there is no distinctive strategy and little sustainability.

In this view, successful firms must improve and align the many processes underway to their strategic vision. Strategic positioning in this fashion requires:

- Creating a unique and valuable position.
- Making trade-offs compared to competitors
- Creating a "fit" among a company's activities.

Project managers should be aware of the strategic position of their own organization and the other organizations involved in the project. The project manager faces the difficult task of trying to align the goals and strategies of these various organizations to accomplish the project goals.

Supervise and Monitor a Team

Regardless of what industry you work in, there are some fundamental responsibilities to management, to your team, and to you, that you must be prepared for.

Here is a look at some of the key skill areas a project manager should have.

Problem Solving	Achievement	Time Management	Influence
• Diagnostic thinking	• Concern for achievement	• Time management	• Team building
• Systematic	• Results orientation	• Cost Management	• Developing others
• Conceptual	• Initiative	• HR management	• Client/user orientation
• Monitoring • Information gathering	• Business orientation	• Risk management • Quality management	• Self-control

In 2007, consulting firm Blessing-White surveyed nearly 8,000 employees, and found that the most important leadership characteristics were:

1. Empathy
2. Trustworthiness
3. Business aptitude
4. Depth
5. External attunement
6. Clarity
7. Responsibility
8. Internal attunement

Another way to examine leadership is using the “Great Person" approach, and search for universal characteristics common to all leaders.

When researchers looked at the lives of people like Churchill and Lincoln, both of whom are considered great leaders, they found that both men had suffered personal defeat many times. Churchill was sent home from school in grade four because his teachers said he was too slow. Lincoln ran for office and was defeated 19 times before he became President of the United States.

The next stage of leadership studies was an attempt to find out what effective leaders did. The idea here was if it could be discovered that leaders did, then people could become effective leaders by doing the same thing. This can be thought of as "the one best way" approach. However, once again, research was inconclusive. The way one leader got results might in no way resemble the way another leader got similar results.

The next major step was to look at the relationship between the situation in which the leader acted and the way the leader behaved. This "it all depends" approach led to the development of a number of contingency or situational theories of leadership.

What these theories had in common was the idea that a leader's behavior should be determined by the nature of the situation. In other words in situation A, leaders should do X to be effective, while in situation B, leaders should do Y to be effective.

Research has generally found support for this idea. Firefighters battling raging fire respond better to certain kinds of leadership behavior, while volunteers for the United Way, for example, who are planning their door-to-door campaign respond better to other leadership styles.

A leader who used the same approach in both situations, even if the people were the same individuals, would not likely be equally effective in the two situations. Effective leaders are able to realize what will be effective and how to adjust their style to the situation.

There have been a number of other approaches and ideas in the study of leadership, including the idea of self-leadership. This approach takes a view that a leader's responsibility is to develop and motivate others so that they become self-led, not requiring leadership from others.

The Leadership Formula

This is in line with recent studies, as researchers have begun to realize that a critical element had been left out of their research. Now studies are beginning to include the followers and their readiness to follow as part of the equation.

- R1: Followers who are willing but not able
- R2: Followers who are not willing and not able
- R3: Followers who are able but not willing
- R4: Followers who are willing and able

Researchers have also identified four levels of commitment.

- C1: People do what they are told and wait to be told what to do next
- C2: People do what they are told and ask what to do next
- C3: People do what they are told and suggest what to do next
- C4: People do what they have been told and then go on to the next step

Where do you want your people? Most feel comfortable at C3, but if we truly want to empower people, we should be working toward having them at C4.

From all this intense scrutiny, it was discovered that there are two major dimensions to leadership.

- One is the level or amount of emphasis devoted to getting the work done.
- The other is the amount of attention given to providing support and encouragement to the people doing the work.

Various names have been used for these two dimensions, such as Task and People, but let's use the terms Direction and Support to refer to them.

- Direction refers to providing information about the task, assigning responsibilities, indicating deadlines, instructions about how to do the task, etc.
- Support refers to things such as encouraging, expressing confidence, dealing with conflict within the group, expressing appreciation, maintaining a positive spirit in the team, and so forth.

Direction	**Support**
• Autocratic	• Democratic
• Task oriented	• People oriented
• Top down	• Bottom up
• Direction	• Supportive

Planning

Stages of a Project

Conceptual/Creation/Initiation Stage

- Establishing a need
- Determining feasibility
- Searching for alternatives
- Preparing proposals
- Developing basic budgets
- Determining basic schedules
- Naming the starting project team
- Study; discuss, and analyze
- Write the project definition
- Set and end-results objective
- List imperatives and desirables (SOW)
- Generate alternative strategies (Brainstorming)
- Evaluate alternatives & choose a course of action

Planning/Growth/Sell Stage

- Setting goals
- Listing tasks to be done
- Developing schedules in a sequence
- Developing a budget
- Getting your plans approved by stakeholders
- Conducting studies and analyses
- Designing systems
- Building and testing prototypes
- Analyzing results
- Obtaining approval for production
- Establish the project objective
- Choose a basic strategy for achieving the objective
- Break the project down into subunits or steps
- Determine the performance standards for each subunit
- Determine how much time is required to complete each subunit
- Determine the proper sequence for completing subunits
- Determine the cost of each subunit
- Design the necessary staff organization
- Determine the number of staff needed
- Determining kind of positions
- Determine what training is required for project team members
- Develop the necessary policies and procedures
- Market study
- Pilot test
- Computer simulation
- Estimating labor costs
- Estimating labor
- Estimating overhead
- Estimating materials
- Estimating supplies
- Estimating equipment rentals
- Estimating general and administrative

Implementation/Execution/Operation Stage

- Getting the time
- Getting the money
- Getting the people
- Getting the equipment
- Meeting and leading the team
- Communication with all stakeholders
- Controlling the work in progress
- Establishing standards
- Monitoring performance
- Inspection

- Interim progress reviews
- Testing
- Auditing
- Taking corrective action

Termination/Close out/ Evaluation Stage

- Letting go of the project
- Celebrate success
- Release resources
- Project completion checklist
- Test project output to see that it works
- Write operations manual
- Complete final drawings
- Deliver project output to client
- Train client's personnel to operate project output
- Reassign project personnel
- Dispose of surplus equipment, materials and supplies
- Release facilities
- Summarize major problems encountered and their solution
- Document technological advances made
- Summarize recommendations for future research and development
- Summarize lessons learned in dealing with interfaces
- Write performance evaluation reports on all project staff
- Provide feedback on performance to all project staff
- Complete Final audit
- Write Final report
- Conduct project review with upper management
- Declare the project complete

The Statement of Work (SOW)

- The purpose of statement
- The scope of statement
- The project deliverables
- The goals and objectives
- The cost and schedule estimates
- The list of stakeholders
- The chain of command
- The communication plan

Urgent-Important Matrix

An important part of planning is deciding what is urgent and what is important.

Urgent: Failure to complete it by a certain time will conceal or reduce the benefit of doing it permanently.

Important: Needs doing but doesn't have the time constraint. The timeline can change.

Both types of tasks have a place. If we are less than adequate planners, having considered the ROI of what we do, we tend to get struck in firefighting mode or crisis management, where everything is urgent. This would not have happened had it been dealt with in a more organized and timely manner.

Another way tasks can be broken down is by progress or maintenance.

Progress Task: You believe this task may move you towards a position which is fundamentally better than the one you are in now. These usually exist in your head, are rarely urgent, are usually new, and are often uncertain.

Maintenance: These tasks do not move you forward, although they may very well keep you from falling back. We do more of these because they are obvious. They are usually urgent (such as month end financial statements), we are comfortable with them, and they are easily justifiable. These tasks tend to be safe.

Prioritizing

For each task, determine whether it is progress or maintenance and urgent or important. Then, prioritize these items.

	Maintenance/Progress	Urgent/Important	Your Ranking
You want to have lunch with your boss. (45 minutes - 1 hour)			
You were instructed the day before to prepare your equipment budget for the next twelve months. (2-3 days)			
You open up your e-mail and see 53 messages waiting for you. (1-1½ hours)			
You need to talk to one of your staff about the new computer program coming online next month. Staff training has not been scheduled and you are afraid there will be glitches that effect clients if staff isn't trained properly.			
You have a stack of unanswered mail that has been labeled "high priority" that you feel must be attended to urgently. (1½ hours)			

You'd like to catch up on the professional journals that are piled on your desk. (1 hour)			
You need to prepare a presentation for a meeting slated for next month. (2 hours)			
There is a meeting at 2:00 p.m. for all supervisors, but you don't know what it is about.			
There is a rumor that there will be some major staff changes coming down the line that could affect your whole department.			
One of the critical employees in your department is out sick today and you must find a replacement if you are to fill an important order for a client.			

The Elements of Planning

Plans are what come out of the planning process. Plans are what you intend to do in the future. Before you can develop plans, however, you must set targets – goals or objectives.

There are four elements of planning:

Goals: Goals or objectives specify future conditions the planner wants to attain.

Actions/Strategy: These are the preferred means, or courses of action, to reach those objectives.

Resources: Time, equipment, people, etc. that are always in short supply and that put constraints on the action. These have to be considered as you set targets and develop your strategies.

Implementation: Ways and means, including the assignment and direction of personnel, to carry out the intended action.

Typically, the goals you set for yourself (or that are set for you) will be a part of the company's overall objectives. They will be targets to aim for in the near future. They will pin down your department's output, quality of workmanship, and allowable expenses.

Recognizing that part of what supervisors do is get work done through the efforts of others. To achieve this, they must schedule and prioritize. They must organize resources to make sure plans hit their targets/goals: that people are at work on time, that resources aren't wasted, that machines are in good repair and able to give their expected daily output, and that services will be of the highest quality to ensure customer satisfaction.

Your work targets/goals will be achieved through short-range planning.

Check your habits. If you are too busy to worry about anything but today, chances are you spend your time fighting fires that could be avoided by planning a week or even a month ahead of time.

Employees have confidence in someone who is willing and able to plan their work well for them. Nothing breaks down morale like continual crises.

Employees don't like change. They like going home at night fairly certain of what they will do tomorrow and that the tasks will be ones they feel able to do. If you show them you can schedule the work smoothly, employees will feel more like pitching in when the occasional emergency comes up.

Setting Goals

Goals and objectives are the basis for planning. As the Cheshire Cat said to Alice, "If you don't know where you are going, then any road will take you there." And that is often how we approach life. We just live, and if we end up where we want to be, hey, that's great. If we end up where we don't want to be, hey! That's life.We can do a bit better than that, if we really want to. The first element in planning is knowing what we want to achieve, and the way we word our goals is the biggest factor in helping us achieve them. Lucky for us, some smart person has come up with an acronym to help us remember these characteristics. Goals should be SMART.

S=SPECIFIC

When we make our goals too general we aren't able to visualize them, and if we can't see them, we have a hard time devoting our efforts toward reaching them. We are more apt to do a good job of redecorating the bathroom if we have a picture in our mind of how it will look when it's done.

M=MEASURABLE

If we can't measure a goal, we have no idea how close we are getting to reaching it, and that can be de-motivating. For example, you have decided you will save some money from every paycheck in order to take a vacation this summer. But if you don't set a specific amount each pay, and you don't have an amount you want to reach, you are less apt to put the money away.

A=ATTAINABLE

We sometimes think that we should set high targets or goals for ourselves, in order to grow and stretch. Well, we do want to grow and stretch, but if we set goals that aren't doable, we soon get discouraged and we stop trying. The really high achievers in the world know this. They set goals that they know they can reach, with a little stretching, and when they get there, they set another goal they know they can reach. They climb the mountain one foot at a time.

R=RELEVANT

Goals have to make sense, and have some importance, or they will soon be discarded. Set goals that make sense to you. (Another word that is often used for the R in this acronym is Realistic.)

T=TIMED

Put a deadline on your goals. Deadlines are great for getting things done.

You will also want to make sure that your goals have the three P's.

- Personal: There has to be a buy-in.
- Positive: You won't want to work towards if it isn't.
- Put in writing: Remember and can refer back to for all of the above.

Make them Personal.

You set goals because you want to reach them, not because your boss or your spouse wants you to. Similarly, when you are helping your employees set goals, they must be goals that your employees want, not the goals you want for them. Without buy-in, you are wasting your time.

Make them Positive.

We can create negative energy by saying what we aren't going to do, but the effect is more sustainable when we say what we will do.

Goals aren't just about work. You are a whole person with many more sides to you than just your skill as a supervisor for your organization. While you are thinking about setting goals, let's think about areas in which you want to set goals.

Put these goals or targets in writing.

So everyone will remember them all the time and work towards them.

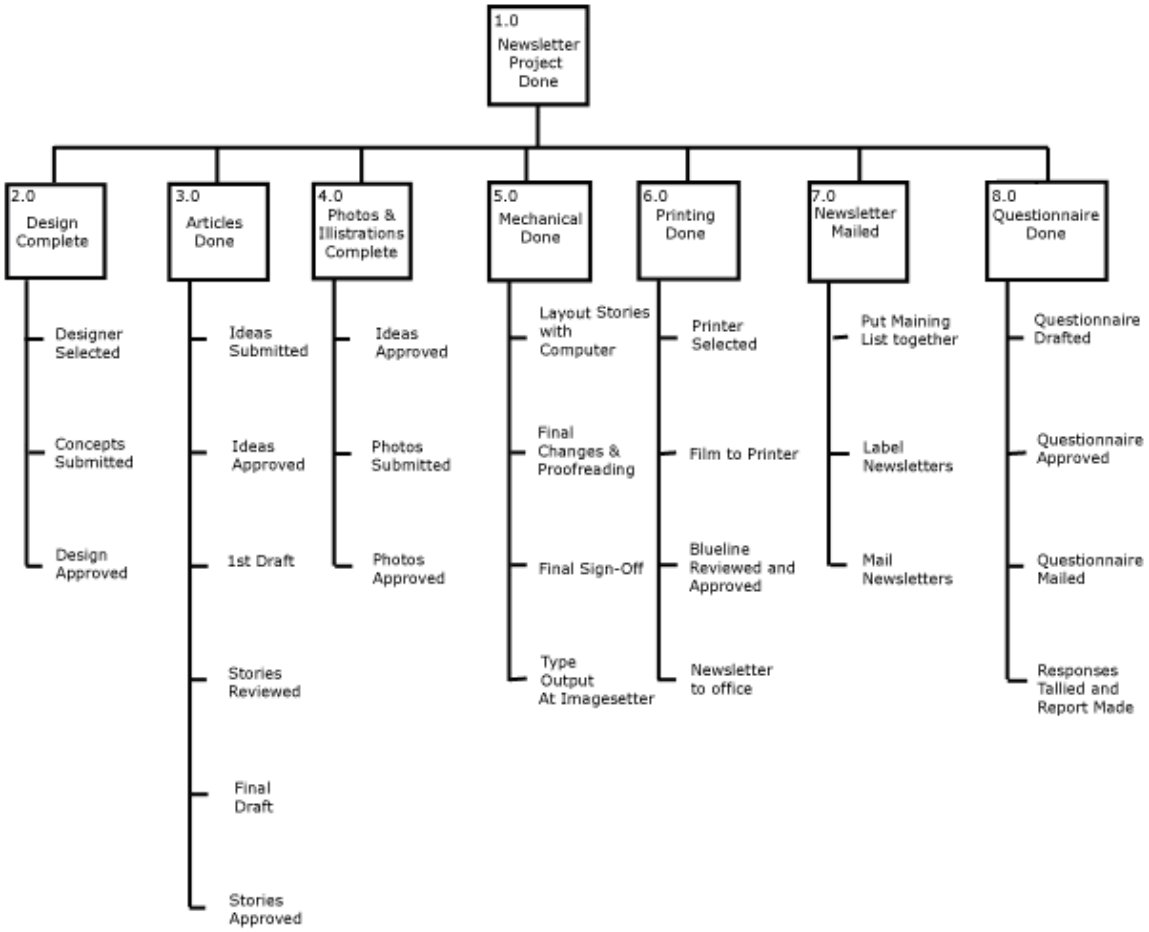
The Work Breakdown Structure

About Milestones

Milestones signify a key accomplishment in your project. They are markers for summarizing work that has been done, not individual tasks. One advantage of a milestone chart or calendar is that it can be posted for everyone to see.

The idea of a Work Breakdown Structure (sometimes called Product Breakdown Structure) is to break larger tasks (milestones) down into smaller tasks (activities) or individual components.

Here is an example Work Breakdown Structure for a newsletter project.



It is always a good idea to post the WBS where all team members can see it to help people keep on track.

Preparing a Basic Schedule

Now that we have our tasks neatly laid out, it's time to schedule them in to determine how long the project will last. It is very important to include all affected members in the scheduling process.

Some items that you will want to gather before starting the scheduling process:

- Schedules of people that will be working on the project, including outsourced vendors. In particular, make sure you note times when they are very busy or may be unavailable.
- Vacation time for staff on the project.
- Other projects that team members are involved in that may conflict with this project.
- Schedules for materials and resources that will be required

This formula is considered the standard for estimating time (T_e):

$$\frac{T_o+4T_m+T_p}{6}$$

T_m= probable time	T_o= optimistic time
T_p=pessimistic time	T_e=calculated time

To start, go through and assign an optimistic, pessimistic, and probable time to each of your tasks. These numbers will be derived from your experience and from the experience of your staff. It is crucial that you get the best estimates possible to ensure the most accurate scheduling possible.

In the example below, each number represents days.

Task Number	Task Name	T_o	T_p	T_m	T_e
1)	Consult ETDP Practitioner	2	8	6	
2)	Obtain Budget	1	10	5	
3)	Identify stakeholders	5	14	10	
4)	Identify resources	1	4	2	
5)	Develop Framework	1	4	2	
6)	Evaluate Framework	1	4	2	
7)	Design Learning Material	1	5	3	
8)	Evaluate Design	2	6	4	
9)	Develop Learning Material	3	8	6	
10)	Conduct Pilot	2	5	3	
11)	Evaluate Learning Development	2	5	3	
12)	Compile a Report	5	10	7	
13)	Present Report	1	5	3	

Float Time

In almost every project, we have to account for Murphy's Law: "If something can go wrong, it will." The float time is the cushion you build into projects so Murphy's Law can be accommodated. Pad your timelines a bit to allow for contingencies. Rather than adding a bit to each step it may be more useful to just add a bit more time before the project is to be due. One of the big problems with project planning is that you cannot foresee or totally control the future.

Scheduling Checklist

As you are developing your project schedule, ask yourself who your readers will be:

- How much information do they need (big picture or details)?
- What form of schedule do they want or expect to see?
- Should I create customized versions of the schedule for certain audiences, or for display purposes?

Remember that a schedule is first and foremost a communication tool. Its purpose is to keep everyone aware of what should be going on. If people can't understand it, it is useless.

And, it doesn't matter what planning tool we use, each version should be dated so you can relegate old versions to the project file or the wastebasket. Nothing is more confusing than to have two Action Planning Workshops or Milestone Charts for the same project with no idea which one you should be following.

Activity Scheduling

New project managers often just try to schedule activities in sequence, one after the other. However, you can save a lot of time and money by creating a plan that has several activities happening at the same time. However, if you try to get things done too quickly you may end up with confusion and bottlenecks.

Figuring out what project activities can occur simultaneously is a job for a veteran. If you must figure it out for yourself, break the tasks down into as much detail as you can to avoid unforeseen project activities or costs.

There are some tools that we can use to help us schedule our activities.

Planning Tools

We are familiar with many planning tools. We use them every day. They include:

- The clock on the wall
- The calendar in the lunch room
- The planner on our desk
- The meetings we attend

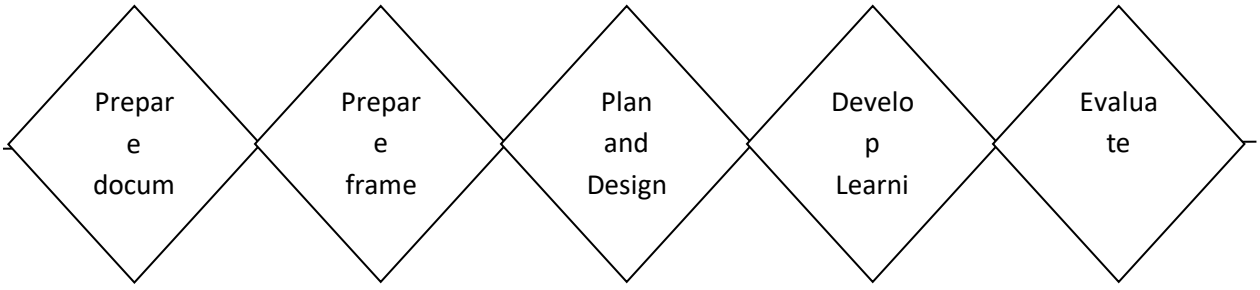
Determining what material, resources, or support will be needed is an important part of determining the budget for this project, if the budget has not already been identified for you. Even if the budget has been identified, preparing and tracking a budget can be an excellent exercise. It will also prepare you for the day when you do have to manage your project's budget.

Action Planning Worksheets

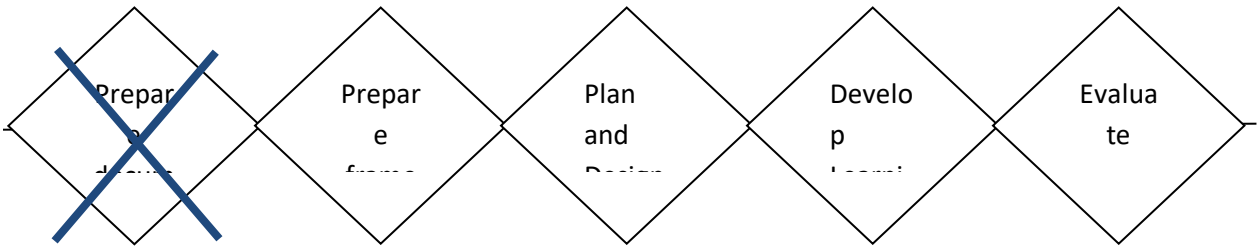
These can vary greatly in their complexity. The most basic ones show only those steps required to complete a project. Additional information, such as the beginning dates, targeted completion dates, cost estimates, and who is responsible, can be added to the basic worksheet.

Milestone Charts

Milestones signify a key accomplishment in your project. They are markers for summarizing work that has been done, not individual tasks. One advantage of a milestone chart or calendar is that it can be posted for everyone to see.



A Milestone Chart will be even more useful if you use it to chart your progress. This is usually done by drawing a line in a different color under the original line to show actual beginning and completion dates of each step, or if you are using a wall calendar, crossing off each milestone in a different color when a task is done.



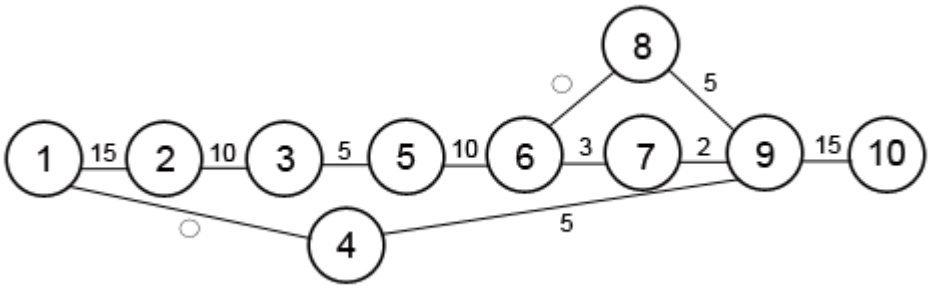
PERT

A PERT diagram is a Program Evaluation Review Technique. It is a diagram that represents an added degree of sophistication in the planning process. To draw one, list the steps required to finish a project and estimate the time required to finish each step. Then draw a network of relationships among the steps. The number of the step is shown in a circle, and the time to complete the step is show on the line leading to the next circle.

OBJECTIVE:			
Publish a Work Planning and Review Workbook by September 1, 2008			
Action Steps with Time Estimates:			
1.Write draft	15 days	6.Proofread	3 days
2.Type draft	10 days	7.Make corrections	2 days
3.Proofread	5 days	8.Draw figures	5 days
4.Draw cover	5 days	9.Reproduce	15 days
5.Type final	10 days	10.Deliver books	

Steps that must be completed first are shown in order to clarify proper sequencing. Steps that can be underway at the same time are shown on different paths.

A PERT diagram not only shows the relationship among various steps in a project, it also serves as an easy way to calculate the critical path.



(The PERT Diagram can be made clearer by coloring each step as it is completed. Actual time may be written over the estimated time to maintain a running tally of actual versus planned time along the critical path.)

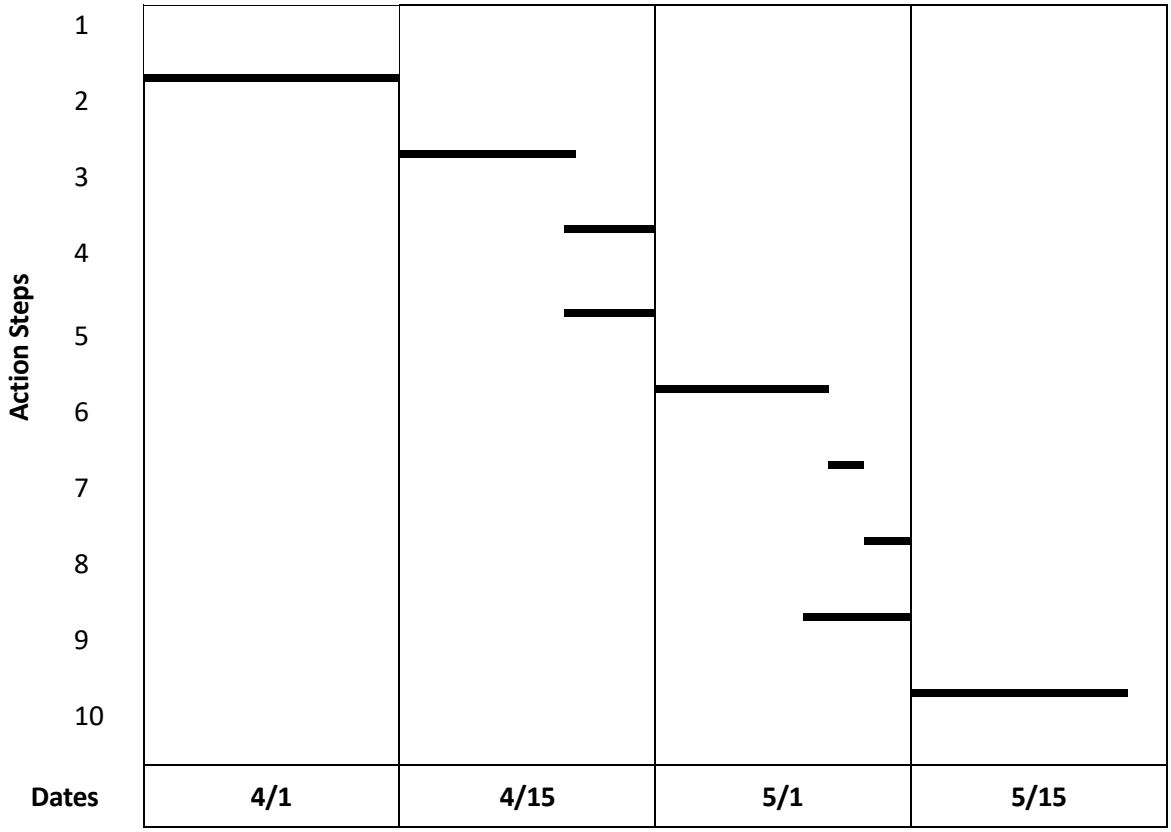
Along the Critical Path

The PERT diagram and the CPM (Critical Path method) are very similar, and they are the most common forms of showing networks, or interrelationships among tasks. They just display information differently. They are sometimes called the PERT/CPM activities.

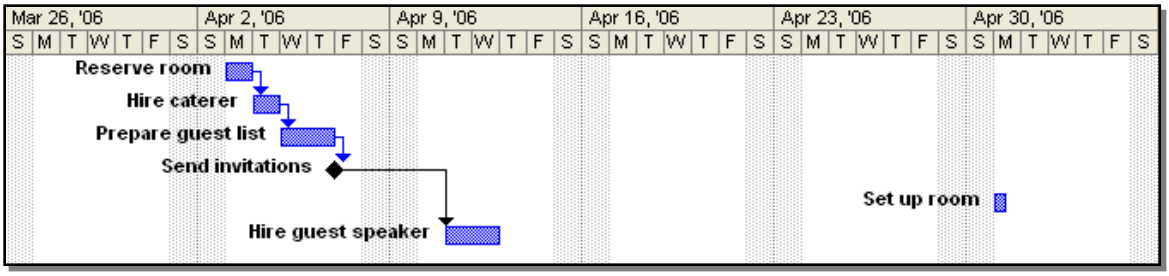
The critical path shows the shortest amount of time needed to complete a project.

Gantt Charts

Gantt charts are bar charts that show activities as blocks of time. These are extremely useful; once you have calculated the estimated duration for your project, you should fill in one of these.



Here is a computer-created Gantt chart.



The Network Diagram

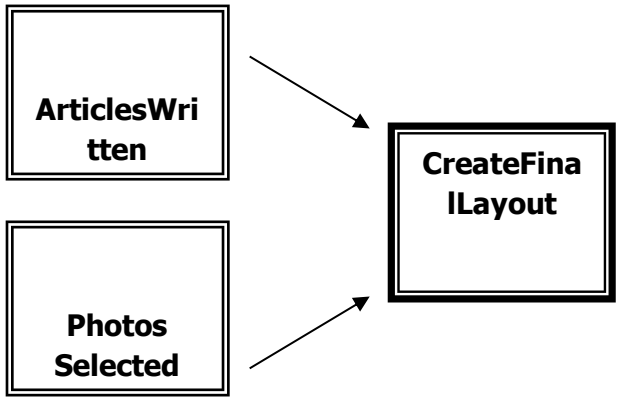
The Network Diagram is a tried and proven way to organize and sequence the steps in a project. Anything but the simplest project should have a network diagram; it's a road map for your project and you don't even need a computer to create one (but it sure helps on big projects). However, it's important to understand how to create your network diagram manually before you let your computer do your thinking for you.

The network diagram shows the path of the projects, lists starting and completion dates, and names the responsible party for each task. You should put your network diagram on the wall where the whole project team can see it. Then, use a bright color to mark off what has been done; this is a powerful way to communicate just where you are in a project.

If you are the only person working on your project, you will probably complete your tasks in sequence, one after the other, until the project is finished. However, if your project involves more than one person, people will be working on different tasks at the same time, and some tasks may depend on others to be completed before they can get done.

These interdependencies can be hard to figure out in your head. That's when you really need a network diagram—to help you picture how the pieces fit together.

Detailed task lists and a work breakdown schedule are a good start, but they don't draw the complete picture. They aren't very effective when it comes to coordinating tasks and resources. Network diagrams reveal the workflow, not just the work.



Five Steps to Create a Network Diagram:

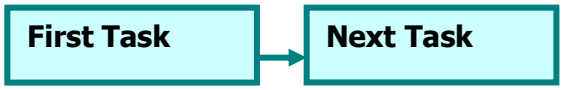
1) List the tasks using your task list or your WBS (Work Breakdown Structure).
2) Establish the interrelationships between tasks.
    i) Ask yourself, what precedes this task? (What other tasks must be completed before this one can get started?)
    ii) What tasks follow this task? (What tasks can't be started until this task is done?)
    iii) What tasks can take place concurrently with this one? (What tasks can be worked on while this is being completed?)
3) Identify milestones. Milestones signify a key accomplishment. They are markers for summarizing work that has been done, not tasks. If the project is small, you can even leave out the milestones.
4) Lay out the tasks and milestones as a network. Some experienced project managers start at the end point, the last task in a project, and work backwards. However, there are lots of good arguments for starting at the first task and moving forward. Your approach is a matter of preference.
5) Review the logic of the network. The network review process lets you see whether tasks are being done in a logical sequence. Ask yourself:
    i) Are the tasks properly sequenced?
    ii) Are all preceding tasks identified?
    iii) Are all the tasks necessary?
    iv) Are any tasks missing?
    v) Do these tasks represent all that needs to be done in order to meet the project goals specified?

Other Things to Know about Network Diagramming

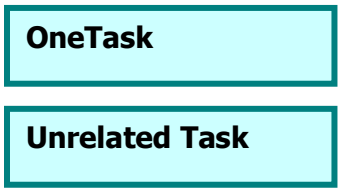
A rectangular box indicates a task. The number in the top right is the duration of the task. The number at the left is the task number used for tracking.

A box with rounded corners is a milestone. Milestones do not have duration like a task because they represent the completion of a series of tasks.

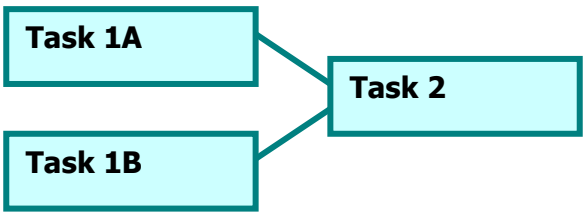
Precedence is indicated by the sequence of tasks joined with a line and an arrow.



Concurrent tasks are shown in the same vertical plane and are not connected by lines or arrows.



Two tasks that must be completed before a third can begin looks like this.



To make tasks and sequences easier to find in your network, be sure to identify each task and milestone with unique numbers or other identification labels. In computerized project management programs, tasks are always numbered and identified by task description.

The same method of identification or numbering used in the WBS is usually appropriate; however, it is common in networks to skip numbers between tasks to allow flexibility in the network when requirements for new or different tasks may become apparent later in the project.

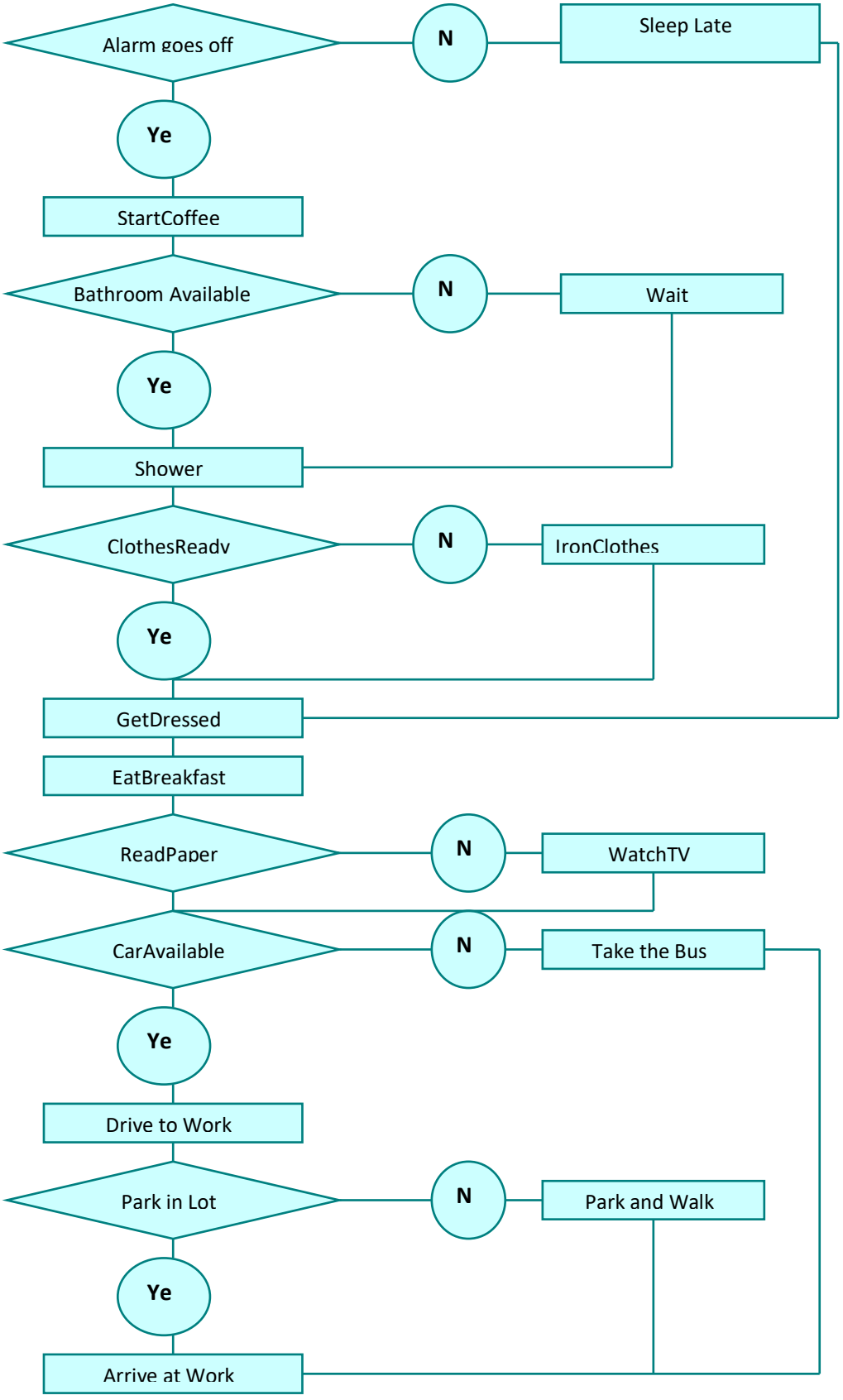
For example, instead of numbering tasks as 1, 2, 3, and so on, it might be better to number tasks in relation to each milestone. For example, between task 10 and task 11, you can number them 10.1 and 10.2 without disturbing the logical numbering sequence of the original tasks. The numbering system should be flexible because projects almost always have changes that need to be represented in the network.

The Flow Chart

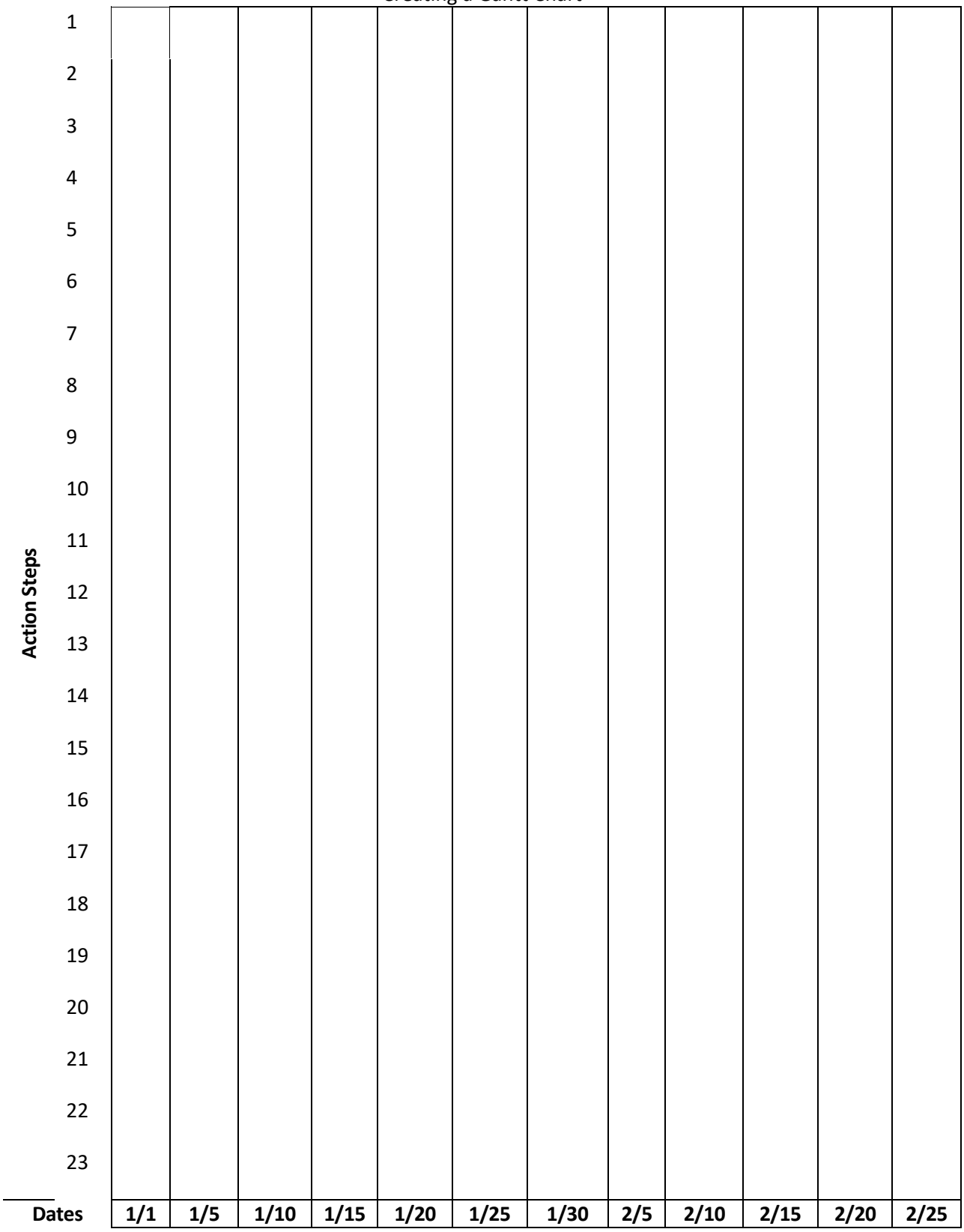
You've probably seen a flow chart. It shows the flow of information or activities based on different outcomes.

Here are the steps to making a flow chart:

1) Gather a group of people who represent the various parts of the process.
2) Decide where the process begins and ends.
3) Brainstorm the main activities and decision points in the process.
4) Arrange these activities and decision points in their proper order, using arrows to show direction of flow.
5) As needed, break down the activities to show their complexity.


Alarm goes off
N
Sleep Late
Ye
StartCoffee
Bathroom Available
N
Wait
Ye
Shower
ClothesReady
N
IronClothes
Ye
GetDressed
EatBreakfast
ReadPaper
N
WatchTV
CarAvailable
N
Take the Bus
Ye
Drive to Work
Park in Lot
N
Park and Walk
Ye
Arrive at Work

Creating a Gantt Chart



Change Control and Issue Management

Any changes that are required during the life of the project must be formally planned and controlled to ensure that the impact of change stays within agreed parameters; there should be a documented change control procedure. The cost, time and quality parameters associated with the project should be established before implementation and monitored throughout the life of the project. All proposed changes should be costed and their effect on the overall project established before they can be authorised to go ahead.

Issue management is closely linked to risk management. Issues such as the potential for conflicting stakeholder views need to be closely monitored through an Issues Log and appropriate action taken if they become risks to the project.

Establishing Standards

Standards for the project would have been set in the detailed project specifications created in the planning stage. It is critical that the project leader should continuously refer to these standards. If there is deviation from the original standards set, there will be no guarantee that the success predicted by initial studies such as the feasibility study, pilot project, will actually materialise.

A number of tools that have been discussed earlier on will assist the project leader in controlling the project to make sure that the parameters defined in the specifications for quality, time and budget are actually met. A Gantt Chart and PERT network are useful tools to start with. Four other techniques which allow charts are:

- Control-point identification
- Project control charts
- Milestone charts
- Budget control charts

Control-point Identification Charts

A helpful technique for controlling a project is to invest some time in thinking through what is likely to go wrong in the areas of quality, time and cost. The second step is to identify when and how a project leader will know that something is amiss and what will you do to correct the problem.

PROJECT CONTROL CHART

Control Element	What is likely to go wrong	How and When will I know	What will I do about it
QUALITY	There will be more staff members allocated full-time to the project than desired.	Upon personal inspection of each stage of the project.	Have sub-standard work done by utilising WBS tool.
COST	Cost of any sib-unit of the project may exceed the budget.	When purchase agreements are made.	Seek alternative suppliers/ get three quotations and choose the lowest.
PUNCTUALITY	Time to complete any sub-unit of the project may exceed the schedule	By closely monitoring actual progress against schedule along critical path.	Look for ways to improve efficiency.

Project Control Chart uses budget and schedule plans in a quick status report of the project. It compares actual with planned results, calculates variance on each sub-unit completed, and tallies a cumulative variance for the project.

Milestone Chart, as explained earlier on, presents a broad-brush picture of the project's schedule and control dates.

Monitoring Performance

Monitoring performance forms the heart of the control process. Common ways of monitoring performance are:

- Inspections
- Interim progress reviews
- Testing
- Auditing

Inspection is performed by trained inspectors as well as by the project leader. Inspecting a project means getting to where the work is performed and observe what is happening. The manager takes hands on approach in order to assess whether project specifications are being met.

Interim Progress Reviews are communications between the project leader and those responsible for the various sub-units of a project. Reviews can be done either in writing or verbally through regular meetings. They can be in a group or on an individual basis, either face-to-face or by telephone. Topics that are usually covered are:

- Review of the progress against plan
- Review of the problems encountered and how they were handled
- Review of anticipated problems with proposed plans for handling them.

Testing is another way of monitoring performance. Certain tests are usually written into the specifications to confirm that the desired quality is being achieved.

Auditing usually refers to financial auditing, purchasing practices, safety practices, security practices, etc. Auditors should be experts in the area of the project under review, and are typically not members of the project team.

Monitoring Quality

Monitoring quality is the most critical part of managing a project. When quality is not according to specification, the customary action is to do it again according to plan. The final decision may eventually be to have the work re-done, but that should not be an automatic outcome. There are certain issues that need to be carefully considered for instance:

- **Re-negotiate**

Re-negotiating means discussing with the relevant stakeholders the possibility of increasing the budget or exceeding the deadline.

- **Narrow project scope**

It is possible that you can eliminate non-essential elements of a project by re-defining the scope. This may result in cost/time reduction. Proper planning should be done for such event.

- **Deploy/ Move Resources**

You may need to deploy more resources to one part of the project in order to meet a specific deadline or a critical schedule. This must be done in line with cost calculations.

- **Substitutions/ Alternative Suppliers**

In managing procurement, the project leader needs to be flexible. When something is not available you need to look for substitution. If a supplier can deliver on time, look for alternative supplier.

- **Offer incentives**

Incentives should be considered for both the project team and other critical stakeholders such as suppliers. This may assist in saving time and sometimes cost.

Project Management Evaluation Worksheet

Project Title _____

	Yes	No	Notes
Purpose of project			
Background Information			
Project Goal Statement			
Planning Tools			
Allocation of resources			
Communication			
Contingency Plan			

What I liked:	
Suggestions for improvement:	

Reporting Progress

Progress reporting is a key activity of project management. The project manager should issue reports to stakeholders regularly. Include these people on the circulation list:

- Project Sponsor
- Budget Holder
- Senior Users
- Team Members

Keep the report brief and sum up the key points in the project. I recommend this simple format on a maximum of 1 to 2 pages:

1. Report Date.
2. Overall Status.
3. Project Summary.
4. Key Issues.
5. Identified Risks.
6. Tasks and Next Steps.
7. Decisions Needed.
8. Key Future Dates.
9. Budgeted Cost.
10. Spend to Date.

Keeping people updated ensures they remain involved and committed. Regular communication is essential to the well-being of any project. Common failings in this area are:

- Poor communication channels
- Lack of honest communication
- Unwillingness to communicate bad news
- Not asking for help when it's needed.

Regular progress reporting creates a valuable written record of the projects' life. Later you can look back and decide how to improve runningof future projects.

Reporting Status

There are three major components to reporting project status:

- **Overall:** We need to see the overall project health. As managers, we want to be able to detect a project in trouble. We also want to help make that determination sometimes. You might not know everything we know despite our best efforts to communicate. Your project might not be as healthy as you think it is.
- **Milestones:** Your project has major accomplishments which must be completed by specific dates. We managers want to see which milestones are complete, which ones are in progress, and which ones are coming up next. This allows us to analyse the schedule and decide to either feel comfortable with it or challenge it.
- **Issues:** Your project also probably has one or more obstacles to completion which have been discovered. We'd like to see brief details about each issue so that we can make a decision about whether or not to step in and help if necessary.

Organsing your Status

Just as you would clean a kitchen by starting up high and working your way down ultimately to the floor, project status is best when it starts off with the highest levels of detail and works it way down to lower and lower levels.

Thus:

Overall project health comes first. If I like what I see here, I can stop reading the rest. Major milestones follow overall project health. If I don't like the project health, or if I am in need of further details, I can read a little further and check out the scheduled dates we are driving toward and your progress on them. Issues may be holding up those dates, so when I see a problem in your project schedule, I can read further and see what it is. Really slick project managers report the issues in priority order showing the issue causing the most jeopardy to progress first.

Brief Details

Your job is to report on the details of your project in concise, crisp status that we can consume rapidly without having to spend much effort on it. It might take you thirty minutes to write your status, but always remember that your manager does not have thirty minutes to spend reading it. Your manager realistically only has about 30 seconds to consume your status as they may have 30, 40, 100, or even exponentially more projects for which they are responsible.

"Brief Details" may seem oxymoronic to a project manager, but to a supervisor with a team of project managers, it is not. There is enormous value in a project manager who can report status without narrative.

Here are some suggestions:

- Write in bullets, not in prose. There shall be no paragraph anywhere in your status.
- Avoid unnecessary use of titles and colons. We can see that 7/4/2008 is a date. Writing "date: 7/4/2008" does not tell us anything that "7/4/2008" does not.
- Reduce, reduce, and reduce some more. Do your best to shorten all expressions and sentences.
- Avoid adverbs (really, very, much) and avoid adjectives (good, bad)

Key Data

Management will need certain data from you in order to see overall health, performance against milestones, and the threat that project issues present. For overall project health, these data points might include:

- The project's name
- The project identification number if your company uses a tool to store projects.
- The overall project health (red yellow green - more on this in a future article).
- The % complete you expected to be at today (planned completion).
- The % complete you are actually at.
- The number of days behind or ahead against the plan.
- The number of blocking issues you face (more about this later in this article).
- The number of "normal issues" you face.

These data elements should provide a sound overview of project health for the average executive who is not details minded and is not interested in getting more involved in your project.

Providing project milestones is helpful in this regard. It lets one see your schedule at a high level, determine if the schedule is acceptable as it stands, and predict pitfalls you might face down the road.

Milestones have six components:

- The milestone name.
- The percent complete of the milestone.
- The planned start.
- The planned finish.
- The actual start.
- The actual finish.

Some people like to provide red, yellow, green (RYG) status for each milestone in their project. I don't believe that adds any value. Of course the completed tasks are green. All following milestones have the same status as the current milestone, so there is no point in differentiating them. The RYG status of the whole project is all that is necessary.
It's best to start with the earlier tasks first and the final delivery date at the bottom. If you list them haphazardly, you will create more confusion than clarity.

- **Current Activity:** What is currently being done to resolve this issue? Are you firing up a conference call? Are you calling out for reinforcements from a particular group? What is being done to mitigate? Are there alternatives?

Risk Management

Nobody likes to think about what may go wrong on a project, but to overlook risk management means that you chance an unnecessary project failure.

Risk management is the heart and soul of project management. Failing to practice it right can have fatal consequences on projects and programmes. Doing real effort in the planning stage can save the entire investment and will increase the likelihood of project success. However, planning alone is not enough if monitoring risks is not handled seriously. These are seven deadly sins of risk management and how to take preventive actions to avoid them.

No one would disagree that managing risk within a project is not a good idea. Risk Management is an essential part of any programme or project and can vastly contribute to successful delivery. Where it can and does go wrong is when there is an over-reliance on the risk aspects of the project and they in themselves start driving the way the project moves forward. The management of risk is part and parcel of project management, but is not the be all and end all of it as it sometimes becomes in more risk averse organisational cultures.

Every project manager and business leader needs to be aware of the practices and principles of effective risk management. Understanding how to identify and treat risks to an organisation, a programme or a project can save unnecessary difficulties later on, and will prepare managers and team members for any unavoidable incidences or issues.

Risk is a concept that denotes a potential negative impact to an asset or some characteristic of value that may arise from some present process or future event. In everyday usage, risk is often used synonymously with the probability of a known loss. Risk is measured in terms of impact and likelihood. Since risk is directly correlated to loss, it is important to be able to assess risks in one's business and to address them. Needless to say, inattention to risks can definitely affect a company's bottom line.

Principles of Risk Management

Organisational Context

A fundamental principle of all generic management methods, is that all organisations are different. Project managers, programme managers and risk managers need to consider the specific context of the organisation in order to ensure thorough identification of risks and appropriate risk treatment procedures.

The term 'organisational context' encompasses the political, economic, social, technological, legal and environmental backdrop of an organisation.

Stakeholder Involvement

It is easy for a management team to become internalised and forget that stakeholders are also key participants in everyday business procedures, short-term projects and business-wide change programmes.

Understanding the roles of individual stakeholders and managing stakeholder involvement is crucial to successful. Stakeholders should, as far as is appropriate, be made aware of risks to a project or programme. Within the context and stakeholder involvement, "appropriate" concerns: the identity and role of the stakeholder, the level of influence that the stakeholder has over and outside of the organisation, the level of investment that the stakeholder has in the organisation, and the type, probability and potential impact of the risk.

Organisational Objectives

Risks exist only in relation to the activities and objectives of an organisation. Rain is a negative risk for a picnic, a positive risk for drought-ridden farmland and a non-risk for the occupants of a submarine.

It is imperative that the individual responsible for risk management (whether that is the business leader, the project/programme manager or a specialist risk manager) understands the objectives of the organisation, in order to ensure a tailored approach.

Reporting

Accurately and clearly representing data, and the transmission of this data to the appropriate staff members, managers and stakeholders, is crucial to successful risk management.

Roles and Responsibilities

Fundamental to risk management best practice is the clear definition of risk management roles and responsibilities. Individual functions and accountability must be transparent, both within and outside an organisation. This is important both in terms of organisational governance, and to ensure that all the necessary responsibilities are covered by appropriate individuals.

Support Structure

A support structure is the provision within an organisation of standardised guidelines, information, training and funding for individuals managing risks that may arise in any specific area or project.

This can include a centralised risk management team, a standard risk management approach and best-practice guidelines for reporting and reviewing organisational risks.

Early Warning Indicators

Risk identification is an essential first step for removing or alleviating risks. In some cases, however, it is not possible to remove risks in advance. Early warning indicators are pre-defined and quantified triggers that alert individuals responsible for risk management that an identified risk is imminent. This enables the most thorough and prepared approach to handling the situation.

Review Cycle

Related to the need for early warning indicators is the review cycle. This establishes the regular review of identified risks and ensures that risk managers remain sensitive to new risks, and to the effectiveness of current policies.

Supportive Culture

Risk management underpins many different areas and aspects of an organisation's activity. A supportive culture is essential for ensuring that everybody with risk management responsibilities feels confident raising, discussing and managing risks.

A supportive risk management culture will also include evaluation and reward of risk management competencies for the appropriate individuals.

Continual Improvement

In an evolving organisation, nothing stands still. An effective risk management policy includes the capacity for re-evaluation and improvement. At a practical level, this will require the nomination of an individual or a group of individuals to the responsibility of ensuring that risk management policies and procedures are up-to-date, as well as the establishment of regular review cycles of the organisation's risk management approach.

Golden Rules of Risk Management

Rule 1: Make Risk Management Part of Your Project

The first rule is essential to the success of project risk management. If you don't truly embed risk management in your project, you cannot reap the full benefits of this approach. You can encounter a number of faulty approaches in companies. Some projects use no approach whatsoever to risk management. They are either ignorant, running their first project or they are somehow confident that no risks will occur in their project (which of course will happen). Some people blindly trust the project manager, especially if he (usually it is a man) looks like a battered army veteran who has been in the trenches for the last two decades. Professional companies make risk management part of their day to day operations and include it in project meetings and the training of staff.

Rule 2: Identify Risks Early in Your Project

The first step in project risk management is to identify the risks that are present in your project. This requires an open mind set that focuses on future scenarios that may occur. Two main sources exist to identify risks, people and paper. People are your team members that each bring along their personal experiences and expertise. Other people to talk to are experts outside your project that have a track record with the type of project or work you are facing. They can reveal some booby traps you will encounter or some golden opportunities that may not have crossed your mind. Interviews and team sessions (risk brainstorming) are the common methods to discover the risks people know. Paper is a different story. Projects tend to generate a significant number of (electronic) documents that contain project risks. They may not always have that name, but someone who reads carefully (between the lines) will find them. The project plan, business case and resource planning are good starters. Another categories are old project plans, your company Intranet and specialised websites.

Are you able to identify all project risks before they occur? Probably not. However if you combine a number of different identification methods, you are likely to find the large majority. If you deal with them properly, you have enough time left for the unexpected risks that take place.

Rule 3: Communicate About Risks

Failed projects show that project managers in such projects were frequently unaware of the big hammer that was about to hit them. The frightening finding was that frequently someone of the project organisation actually did see that hammer, but didn't inform the project manager of its existence. If you don't want this to happen in your project, you better pay attention to risk communication.

A good approach is to consistently include risk communication in the tasks you carry out. If you have a team meeting, make project risks part of the default agenda (and not the final item on the list!). This shows risks are important to the project manager and gives team members a "natural moment" to discuss them and report new ones.

Another important line of communication is that of the project manager and project sponsor or principal. Focus your communication efforts on the big risks here and make sure you don't surprise the boss or the customer! Also take care that the sponsor makes decisions on the top risks, because usually some of them exceed the mandate of the project manager.

Rule 4: Consider Both Threats and Opportunities

Project risks have a negative connotation: they are the "bad guys" that can harm your project. However modern risk approaches also focus on positive risks, the project opportunities. These are the uncertain events that beneficial to your project and organisation. These "good guys" make your project faster, better and more profitable.

Unfortunately, lots of project teams struggle to cross the finish line, being overloaded with work that needs to be done quickly. This creates project dynamics where only negative risks matter (if the team considers any risks at all). Make sure you create some time to deal with the opportunities in your project, even if it is only half an hour. Chances are that you see a couple of opportunities with a high pay-off that don't require a big investment in time or resources.

Rule 5: Clarify Ownership Issues

Some project managers think they are done once they have created a list with risks. However this is only a starting point. The next step is to make clear who is responsible for what risk! Someone has to feel the heat if a risk is not taken care of properly. The trick is simple: assign a risk owner for each risk that you have found. The risk owner is the person in your team that has the responsibility to optimise this risk for the project. The effects are really positive. At first people usually feel uncomfortable that they are actually responsible for certain risks, but as time passes they will act and carry out tasks to decrease threats and enhance opportunities.

Ownership also exists on another level. If a project threat occurs, someone has to pay the bill. This sounds logical, but it is an issue you have to address before a risk occurs. Especially if different business units, departments and suppliers are involved in your project, it becomes important who bears the consequences and has to empty his wallet.

An important side effect of clarifying the ownership of risk effects, is that line managers start to pay attention to a project, especially when a lot of money is at stake. The ownership issue is equally important with project opportunities. Fights over (unexpected) revenues can become a long-term pastime of management.

Rule 6: Prioritise Risks

A project manager once told me "I treat all risks equally." This makes project life really simple. However, it doesn't deliver the best results possible. Some risks have a higher impact than others. Therefore, you better spend your time on the risks that can cause the biggest losses and gains. Check if you have any showstoppers in your project that could derail your project. If so, these are your number 1 priority. The other risks can be prioritised on gut feeling or, more objectively, on a set of criteria. The criteria most project teams use is to consider the effects of a risk and the likelihood that it will occur. Whatever prioritisation measure you use, use it consistently and focus on the big risks.

Rule 7: Analyse Risks

Understanding the nature of a risk is a precondition for a good response. Therefore take some time to have a closer look at individual risks and don't jump to conclusions without knowing what a risk is about.

Risk analysis occurs at different levels. If you want to understand a risk at an individual level it is most fruitful to think about the effects that it has and the causes that can make it happen. Looking at the effects, you can describe what effects take place immediately after a risk occurs and what effects happen as a result of the primary effects or because time elapses. A more detailed analysis may show the order of magnitude effect in a certain effect category like costs, lead time or product quality. Another angle to look at risks, is to focus on the events that precede a risk occurrence, the risk causes. List the different causes and the circumstances that decrease or increase the likelihood.

Another level of risk analysis is investigate the entire project. Each project manager needs to answer the usual questions about the total budget needed or the date the project will finish. If you take risks into account, you can do a simulation to show your project sponsor how likely it is that you finish on a given date or within a certain time frame. A similar exercise can be done for project costs.

The information you gather in a risk analysis will provide valuable insights in your project and the necessary input to find effective responses to optimise the risks.

Rule 8: Plan and Implement Risk Responses

Implementing a risk response is the activity that actually adds value to your project. You prevent a threat occurring or minimise negative effects. Execution is key here. The other rules have helped you to map, prioritise and understand risks. This will help you to make a sound risk response plan that focuses on the big wins.

If you deal with threats you basically have three options, risk avoidance, risk minimisation and risk acceptance. Avoiding risks means you organise your project in such a way that you don't encounter a risk anymore. This could mean changing supplier or adopting a different technology or, if you deal with a fatal risk, terminating a project. Spending more money on a doomed project is a bad investment.

The biggest category of responses are the ones to minimise risks. You can try to prevent a risk occurring by influencing the causes or decreasing the negative effects that could result. If you have carried out rule 7 properly (risk analysis) you will have plenty of opportunities to influence it. A final response is to accept a risk. This is a good choice if the effects on the project are minimal or the possibilities to influence it prove to be very difficult, time consuming or relatively expensive. Just make sure that it is a conscious choice to accept a certain risk.

Responses for risk opportunities are the reverse of the ones for threats. They will focus on seeking risks, maximising them or ignoring them (if opportunities prove to be too small).

Rule 9: Register Project Risks

This rule is about bookkeeping (however don't stop reading). Maintaining a risk log enables you to view progress and make sure that you won't forget a risk or two. It is also a perfect communication tool that informs your team members and stakeholders what is going on (rule 3).

A good risk log contains risks descriptions, clarifies ownership issues (rule 5) and enables you to carry our some basic analyses with regard to causes and effects (rule 7). Most project managers aren't really fond of administrative tasks, but doing your bookkeeping with regards to risks pays off, especially if the number of risks is large. Some project managers don't want to record risks, because they feel this makes it easier to blame them in case things go wrong. However the reverse is true. If you record project risks and the effective responses you have implemented, you create a track record that no one can deny. Even if a risk happens that derails the project. Doing projects is taking risks.

Rule 10: Track Risks and Associated Tasks

The risk register you have created as a result of rule 9, will help you to track risks and their associated tasks. Tracking tasks is a day-to-day job for each project manager. Integrating risk tasks into that daily routine is the easiest solution. Risk tasks may be carried out to identify or analyse risks or to generate, select and implement responses.

Tracking risks differs from tracking tasks. It focuses on the current situation of risks. Which risks are more likely to happen? Has the relative importance of risks changed? Answering this questions will help to pay attention to the risks that matter most for your project value.

The 10 golden risk rules above give you guidelines on how to implement risk management successfully in your project. However, keep in mind that you can always improve. Therefore rule number 11 would be to use the Japanese Kaizen approach: measure the effects of your risk management efforts and continuously implement improvements to make it even better.

Closing Out A Project

While you may not want to start planning for the end of a project before you start, you should have some plans for a smooth closing from the outset.For example, do you have a file for each person on the project?Someone is sure to leave before the project is done, and you will want to be able to contact him/her should you need to, and to send him/her a little thank you when the project is done.

You will want files on the vendors you use, and anyone involved in the project, if only for a short time. You will want to make arrangements to:

- Return items borrowed from other departments or from friends, neighbors, etc.
- Account for leased or rented equipment.
- Make sure all unfinished project activities are completed.
- Pay final bills and fulfill all contracts.
- Present the final/finished project to stakeholders, and anyone else who needs to sign off or approve the project.
- Be prepared to conduct post-project evaluations with your team, so you can learn from the past.
- Make sure all documentation lands in the hands of those who will need it in the future.
- Meet with team members and thank them for their efforts.
- If the project was a success, celebrate!

Taking good notes for the duration of a project can benefit future projects.Documentation on research and initial planning is important. However, don’t forget the second half of the project is information on what could (and did) go wrong and the solutions you developed. This information is critical to help the next team create a better plan.

Self Assessment

Self Assessment:

You have come to the end of this module – please take the time to review what you have learnt to date, and conduct a self assessment against the learning outcomes of this module by following the instructions below:

Rate your understanding of each of the outcomes listed below :

Keys : ✖ - no understanding

● - some idea

✓ - completely comfortable

NO	OUTCOME	SELF RATING		
		✖	●	✓
SO1	Discussing and explaining the appropriateness of the various organisational structures.			
SO2	Supervising and monitoring a developmental project team.			
SO3	Reporting progress on a developmental project			
SO 4	Identifying and rectifying problems occurring in a developmental project.			
SO 5	Setting up, running and closing a developmental project			