Curriculum Frameworks

for the

General Phase

of Education

Compiled by Adele Gordon

**Centre for Education
Policy Development**

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FOREWORD

by Ahmed Essop

The establishment of a democratic government and concomitantly, a single national Ministry of Education has paved the way for the reconstruction and development of the education and training system. Central to the reconstruction and development of the education and training system is the fundamental tranformation of the curriculum.

The curriculum and the process of curriculum development must be liberated from the suffocating grip imposed by the rigidity and authoritarianism inherent in the ideology of Christian National Education. In place of the divisions of race, class, gender, creed and ethnicity perpetuated and reinforced by the curriculum under apartheid, we need to develop a curriculum that recognises the common destiny and celebrates the diversity of all our people. And more importantly, we need to ensure that the process of curriculum development is democratised. If the curriculum is to reflect the social, economic and political vision for the transformation of our society as outlined in the Reconstruction and Development Programme (RDP) then it is crucial that all stakeholders - parents, teachers, students, business, labour and the community broadly, are involved in, and contribute to, the development of the curriculum.

In anticipation of the reconstruction and development of the education and training system, the Centre for Education Policy Development (CEPD) established a number of curriculum task teams to develop subject-specific curriculum frameworks in line with the vision and principles, and specifically, the National Qualifications Framework, as outlined in the draft discussion document released by the African National Congress in January 1994 - *A Policy Framework for Education and Training.*

The Reports prepared by the task teams are published here as a contribution to the debate on the transformation of the curriculum. They represent "work-in-progress" and raise more questions and issues for further research than provide clear-cut answers. But that is as it should be if the process is to be open and democratic.

In conclusion I would like to take this opportunity to thank all the task team members for participating in the process and for their professionalism, commitment and dedication. Also, we acknowledge with thanks, the grant assistance by the Swedish International Development Agency (SIDA) which facilitated this publication.

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INTRODUCTION

Adele Gordon

In 1993 and 1994 Mary Metcalfe and Michael Kahn of the CEPD initiated a long-term curriculum development process by establishing or supporting existing curriculum Task Teams. This document includes the reports of these various Task Teams. The compilation reflects the fact that the teams operated in different ways, in terms of their consultative structures and the ways in which they organised their material. In addition we include brief descriptions of curricula for categories of learners other than those pupils in the compulsory phase of education — Early Childhood Development, the Primary Open Pathway Trust for out-of-school-children and youth and Adult Basic Education and Training- to illustrate their articulation with the compulsory phase of education.

The State/National Education and Training Forum short-term curriculum restructuring process, culminating in revised syllabi for 1995, heralds the beginning of the long-awaited long-term curriculum restructuring process which will follow the vision and principles outlined in various ANC documents and the White Papers on Education and the RDP. This, together with the restructuring of the National Department of Education and the creation of the provincial ministries of education indicated to the various task teams that it might be appropriate for these documents to enter the arena of public debate and to contribute to the restructuring of the curriculum. Therefore these frameworks will be available for debate within specific disciplines in the form of this compilation as well as individual reports, where these are requested.

The documents presented are seen as part of an ongoing process, open for continual assessment and debate. Inconsistencies between the different reports have been allowed to remain— these reports are to be viewed as an open process that has exposed difficulties that need to be debated by a range of stakeholders. Terminology must arise out of debate. Because this document aims to stimulate and open up issues, it appeared inappropriate to reach closure on it.

Contestation over certain issues is apparent across the frameworks. Certainly the frameworks do not reveal a consistent policy on language, indicating the fluidity of the national debates on language policy.

Task Teams have defined certain concepts differently. One of the most problematic is the notion of 'concept' and related issues such as 'core' and 'key' concepts. Differences in approach also illustrate the difficulties that we need to address concerning common understandings of 'outcomes' and 'competencies'. An urgent task is to consider articulation at the GEC level between the formal and adult sectors. It is clear that further discussion of these frameworks and others will reveal further inconsistencies and contradictions.

Many of the frameworks emphasise the notion of 'relevant/appropriate' subject matter or what is deemed 'authentic' problems. In some of the reports, notably Life Skills and Science, this has led to the teams proposing thematic teaching across disciplines. Thus certain topics, such as health, are included in different reports. This issue of course is part of a recurring debate in education concerning subject integration. It also opens up possibilities for the suppression and highlighting of topics, both in the curriculum development process and in the classrooms. 'Relevance' has opened up the need to include subject matter previously excluded such as human rights education

education which are included in the Life Skills framework, emphasising the view of authors that curricula should allow for reflection of world views other than the technological.

Not all disciplines were covered by the CEPD process. For example there are well-coordinated teams working in geography, both at a conceptual level and at textbook production and it was not possible to coordinate these efforts.

In the past, the curriculum process has excluded many stakeholders— we hope that these documents will be used to promote transparency and consultation amongst all stakeholders, and empower those previously excluded from curriculum debates to participate fully in the curriculum development process. In particular, we hope that the documents will be used to promote discussion at individual school level and within school clusters, and used in curriculum reform projects in the most marginalised districts— schools in rural areas.

SECTORS: DRAFT INTERIM GUIDELINES FOR THE NATIONAL ABET CURRICULUM FRAMEWORK

CONTENTS

1. PROCESS OF DEVELOPING THE NATIONAL CURRICULUM FRAMEWORK

The COSATU Participatory Research Project kickstarted the development of the national curriculum framework when it commissioned a number of ABET NGOs and educationalists to conduct research into aspects of the framework. A number of questionnaires which asked potential user communities what the content of the ABET curriculum should be were also circulated and informed the final proposal.

The final PRP report proposed a competency or outcomes-based framework for the ABET curriculum so as to enable assessment and equivalence across systems. This proposal was then taken forward by a number of other forums, in which broad agreement was reached on a number of features.

The forums which have debated and agreed on the broad framework include the National Training Board (NTB) Working Committee 4 on ABET, the Centre for Education Policy Development (CEPD), the National Literacy Co-operation (NLC), South African Committee for ABET (SACABET), the Independent Examination Board (IEB) and SACHED's ASECA (A Secondary Education Curriculum for Adults) programme.

The process of debating and formulating the curriculum framework is ongoing. The original version was produced for the CEPD Task Team. It was revised by the writer in November. The revised version has not been discussed y the CEPD, but it has been published in order to facilitate debate and feedback.

2. THE   CURRICULUM   FRAMEWORK   AND   THE   NATIONAL   QUALIFICATION FRAMEWORK (NQF)

As part of transforming the education and training system for a post-apartheid South Africa, the ANC Policy Framework for Education and Training proposes that a single national qualifications and accreditation structure be established. For ABET, there will be four nationally certificated attainment levels leading to the General Education Certificate (GEC).

        ABET 1 = present grade 2/sub B
        ABET 2 = present std 3
        ABET 3 = present std 5
        ABET 4 = GEC (present std 7/8)

The curriculum framework is modular and outcomes-based in order to facilitate this kind of equivalence between systems as well as to enable learners to carry credits from one system across to a second. For example, this system should allow an ABET learner who has reached ABET Level 2 in a community learning group, to move into ABET Level 3 in either the formal night school system or an industry based ABET system. Once this learner has achieved his or her GEC, he\she will be able to proceed with either further education or technical training.

3. THE NATIONAL CURRICULUM FRAMEWORK

3.1   Defining curriculum

A curriculum provides a guiding framework for everything to do with the teaching and learning process.

> Curriculum can be defined as including:
>
> - The overall broad aims, objectives and principles (educational, social, political and economic).
> - How the curriculum reflects the needs and interests of those it serves - the learners, the teachers, the community, the nation, the economy, employers, educators, etc.
> - The selection and sequencing of content, skills or processes, and the assumptions and values used to inform this.
> - How the content, skills and processes are taught and to whom - the mediation of the curriculum.
> - How learning and progress are assessed.
> - How the curriculum is serviced and resourced - teacher education, delivery and outreach, facilities, infrastructure, etc.

This booklet describes aspects of the national curriculum framework before exploring the implications for materials writers.

3.2   Guiding principles, values and goals of the national curriculum framework

3.2.1   Underlying principles and values

This curriculum framework is guided by the principles and values adopted by the National Education Conference held in March, 1992, which are:

> … that education is a basic human right and that education should be:
>
> - provided to all on a democratic and unitary basis, opposing any discrimination on grounds of race, gender, class and age;
>
> - extended to all disadvantaged groups, including women, adults, students, youth and rural communities, in order to redress historical imbalances;
>
> - integrated within a coherent and comprehensive national development policy.

The core values adopted are human dignity, liberty and justice, democracy, equality, and national development.

3.2.2 What are the goals of the new curriculum?

> The **broad goal** of the curriculum is to enable people to acquire the skills and knowledge they need to participate effectively and democratically in their social, economic and political environments.

The curriculum therefore seeks to assist adults to participate fully, equally and confidently in the lives of their families, communities, workplaces, societies and nation.

The curriculum framework attempts to answer the question:

What do we as adults most need to KNOW and be able to DO in order to participate effectively and democratically in a complex and changing world?

Possible answers to this question might include:

- to know how to resolve conflicts and negotiate agreements
- to know and assert our rights in a variety of contexts
- to know where to find information and how to evaluate its usefulness
- to be able to assess a problem from all sides and contribute creatively to its solution
- to be able to set goals and monitor progress towards these goals
- to be able to retrain and change jobs if necessary
- to be able to adapt to changing technology
- to be able to continue to learn throughout life

The national curriculum framework aims to equip learners to do any or all of the above, as well as many other things, according to their needs. In short, it attempts to assist adults **to develop the kinds of roles which are a part of democratic citizenship and necessary for effective participation.**

3.3 What does the curriculum framework consist of?

3.3.1 The generic competencies/outcomes framework

A **competency/outcome** can be described as having the following dimensions:

- a theoretical UNDERSTANDING of the task (including the necessary knowledge)
- the ability to apply a SKILL to perform the task
- the ability to TRANSFER knowledge, skills and understanding to other tasks and situations.

Recent research (NLC/CMDU 1994) stresses the need to recognise an AFFECTIVE component to achieving outcomes. For example, successful learning might depend on the learners' levels of motivation, self-confidence and belief in their ability to succeed. It is therefore important to view an affective dimension (e.g. increased self-confidence) as central to the description of the competencies/outcomes of learning.

The new national framework consists of 10 generic competencies/outcomes **(Appendix 1)** which describe the EXIT OUTCOMES or END POINTS of the learning process.

These competencies/outcomes are **generic** in that they cut across the content areas and prioritise the kinds of knowledge and skills which are important to a general education. They are broad and flexible so as to accommodate a range of different materials for different contexts and learner needs.

Because the competencies/outcomes provide a coherent framework for a variety of courses, qualifications obtained in one system (e.g. industry) will articulate (or be equivalent to) those obtained in a second (e.g. formal schooling). This will enable learners to follow career-paths by moving freely between various institutions and learning contexts. In this way, the curriculum allows for an integrated education and training system.

3.3.2 What kinds of roles should the curriculum prepare adults for?

The curriculum framework sets parameters for answers to questions like:

- What kind of roles should the curriculum framework prepare learners for?
- What kinds of roles are a part of democratic citizenship?

The following table sets out a possible role for each of the first six competencies/outcomes:

Competency		Roles
Competency 1	Thinking about and using learning processes and strategies	Critical and reflective learner
Competency 2	Solving problems and making decisions	Creative problem-solver
Competency 3	Planning, organising and evaluating activities	Competent planner and organiser
Competency 4	Working with others as a member of a team/group/org./community	Collaborative worker
Competency 5	Collecting, analysing, organising and critically evaluating information	Critical information user
Competency 6	Communicating ideas and information	Effective communicator

NOTE: Competency 6 includes acquiring the language skills to support the acquisition of all the other competencies/outcomes

Competencies/outcomes 7-10 describe the range of knowledge that learners need in order to fulfil these roles. This is summarised by the table below:

Competency		Areas of Knowledge
7	Participating in civil society and democratic processes through understanding and engaging with a range of interlocking systems (legal, economic, political, social)	Y systems (legal, economic, social, political), Y how to access and participate in these systems
8	Using'science and technology critically to enhance control over the environment in a range of fields and contexts	Y scientific and technological knowledge, processes and procedures Y how to apply this knowledge in different contexts
9	Applying mathematical concepts and tools	Y mathematical knowledge, processes and procedures Y how to apply this knowledge in different contexts
10	Understanding and using the core skills, concepts and procedures that underlie the domains of social and human sciences; natural sciences; arts, language and literature	Y social and human sciences, natural sciences, arts, language and literature, Y how to apply this knowledge in different contexts

The subject content is the vehicle through which learners develop the more complex roles described by the competencies/outcomes. That is, it provides an organising context for the development of the knowledge and skills which underpin the roles referred to above.

3.3.3 The relationship between the competencies/outcomes

The relationship between the more process-oriented and the more content-based competencies/outcomes can be represented by the following matrix:

Content Roles	1: Critical & reflective learner	7: Civil society etc.	8: Science & tech.	9: Math.	10: Soc.Sc Nat.Sc Arts, etc.
1: Critical & reflective learner					
2: Creative problem solver					
3: Competent planner & organiser					
4: Collaborative worker					
5: Critical information user					
6: Effective communicator					

NOTE 1:   Competencies 1-6 can be described as the kinds of "roles" which the competencies imply.

NOTE 2:   Competencies 1-6 are more PROCESS related while 7-10 are more CONTENT-based. The content competencies provide the CONTEXT within which the more process-based knowledge and skills can be developed.

NOTE 3:   Competency 1 appears on both axes because awareness of thinking and learning is developed both in terms of the process of learning and the acquisition of knowledge.

Although the competencies/outcomes are listed separately, they are acquired and demonstrated in an integrated fashion through the performance of learning tasks or activities.

3.4   **The core components and how they build the generic competencies/outcomes**

In addition to the 10 generic competencies/outcomes, the framework policy specifies the following core components:

- • Core skills
- • core subject areas
- • core processes

The relationships between the core subject areas, core skills and core processes and how they build the ten generic competencies/outcomes are graphically presented in the diagram on the following page.

Core subject areas can be described in terms of core concepts which can be given different contextualisations depending on the needs of the learners. An understanding of the core concepts is developed within the context of a problem-solving task. In the process of completing the task, skills are mobilised and developed. If a language-across-the-curriculum approach is used, language skills can be acquired simultaneously. The successful acquisition of concepts and skills in this process develops the ten generic competencies/outcomes.

Although the competencies are listed as 10 separate competencies, they are acquired and demonstrated in an integrated fashion through the performance of learning tasks and activities.

The National Curriculum Framework:
How the core knowledge, skills and processes build the generic outcomes/competencies

Broad goal: Knowledge, skills and understanding for democratic participation in a range of environments (social, economic, political, natural).

Generic Competencies/Outcomes

1. Thinking about learning...
2. Solving problems...
3. Planning...
4. Working with others...
5. Collecting... information
6. Communicating...
7. Participating in civil society...
8. Using science and technology...
9. Applying maths...
10. Social and human sciences, natural sciences...

Values/principles
* Non-racialism
* Non-sexism
* Equity
* Access
* Redress
* Democratic participation
* Linked to development
* Build confidence, dignity, self-respect

Start reading here...

BUILDS

* Knowledge and understanding
* Skills
* Ability to transfer to new contexts

Core Subject Areas
Development studies
* Languages and Communication
* Mathematics and Numeracy
* Social Studies
* Science and Technology

BUILDS

Learning processes
e.g. Reflective learning, task-based problem-solving, language across the curriculum, transfer to new contexts

CONSISTS OF

MEDIATED BY

ORGANISED INTO

Core concepts
e.g. Energy, transfer, cause and effect, heat, design, pollution, resources

Core Skills
Cognitive, Learning, Analytical, Organisational, Planning, Administrative, Technical, Financial, Scientific, Leadership, Participation

MOBILISE

Themes
e.g. Energy

3.4.1   Core skills

Competencies/outcomes are underpinned by a range of SKILLS. The core skills in the new curriculum include:

cognitive, learning, analytical,
organisational, planning, administrative,
leadership, participation
technical, financial, scientific

A well-chosen task of a problem-solving nature which requires learners to move through a critical and reflective cycle will automatically build competencies/outcomes 1-6. (See section 4.2 for a fuller description of such a cycle.)

3.4.2   Core subject areas

The new curriculum framework specifies five CORE SUBJECT AREAS for ABET:

Language and Communication
Mathematics and Numeracy
Development Studies
Social Studies
Science and Technology

It also specifies that all subject areas should be covered at each level of the ABET system in increasing depth ALTHOUGH not necessarily as separate subjects. It suggests that an integrated approach be adopted.

3.4.2.1 The integrated thematic approach

This means that content from a range of traditional subjects would be integrated under certain themes or topics. For example, a theme on "Energy" would combine areas of knowledge from a range of traditional subject areas, including science, history, agriculture, economics, environmental and development studies, geography, health, social studies, technology, politics, law and mathematics. See illustration showing this integration of knowledge on following page.

Possible module showing integration of subject areas

ENERGY
(heat)

Development
e.g. sustainable development, appropriate technology, community needs, community resources

Natural Science
e.g. sources, sun, energy transfer, energy dissipation, energy conservation, mass, colour, change, cause and effect, combustion

Economics
e.g. affordability, cost/benefit, power generation

Business studies
e.g. market research, feasibility, business planning, marketing, cost/benefit

History
e.g. changing patterns of energy use land rights environmental disasters (political, economic and other causes

Environmental education
e.g. sustainable resources, interdependence, conservation of resources, cause and effect

Agriculture
e.g. appropriate technology, use of natural resources, cost/benefit

Health
e.g. illness related to certain fuel types, safety, pollution, hygiene

Social studies
e.g. urban/rural/workplace planning, power over resources, causes of energy crisis

Politics/law
e.g. power relations, ownership and allocation of resources

Technology
e.g. appropriate technology, solar heating, design, construction

Geography
e.g. urban/rural/workplace planning, use of resources, allocation of resources, siting of tank

Mathematics
e.g. measurement, volume, temperature

3.4.2.2 Core concepts

In the new curriculum, the content will be defined as core concepts which underlie the study of the various academic and technical disciplines. Within each theme, core concepts would combine in different ways. For example, the following concepts might appear in both the themes, Energy and Water (if one chose these as themes): resources, sustainable development, appropriate technology, community needs, rights, affordability, health, ownership, power relations, design, etc.

Core concepts are complex concepts embracing other related concepts. They are tools for thinking on which to hang ideas. They are "big ideas" which can be applied beyond the limits of a particular field and are not necessarily unique to any one field. They allow flexibility with respect to contextualisation as they can be combined in a number of different ways depending on the context and the needs of the learners.

Research which seeks to identify and select these core concepts is currently being conducted in consultation with all major stakeholders (learners, teachers, ABET organisations, industry, state, academics, etc.). Once this is completed, core syllabuses for the different core subject areas at the different levels of ABET will be negotiated and drawn up and available to writers of materials.

3.4.2.3 An example of a module on Energy

The following example of a module on ENERGY illustrates how a single theme can integrate core concepts from a range of traditional subject areas: science, technology, ecology, development, economics, health etc.

NOTE: This is not a carefully developed syllabus outline. It is merely an illustration of a possible module which could be handled in the learners' first language at ABET 2 level. Please do not read as proposed outline.

Theme: Energy from the sun

Module description:

This module explores alternative forms of energy e.g. solar heating and the advantages and disadvantages of different forms of energy. It seeks to address the problem created by lack of access to electricity for the heating of water and for use in the home. It begins by examining the causes for the energy crisis. Then it considers the different types of fuel (wood, gas, paraffin) used by learners and links their use to health issues e.g. some may be cheaper, but more dangerous for one's health. It then seeks to elicit what adults already know about energy e.g. that hot water rises and that the colour black attracts heat. It then assists learners to use this knowledge to design and plan the construction of a solar-heated water tank (e.g. place tin drum on roof, cover with black plastic, pipe water from top of drum). At this point, an optional module could help learners to acquire specific plumbing skills. All these issues could be linked to environmental concerns to do with renewable and non-renewable energy sources, pollution, etc.

*NLC/CMDU (1994) **A** development-driven framework for the **ABET** curriculum p. 29*

3.4.2.4 Core/generative themes with different contextualisations

A set of core themes for ABET could form a set of **generative** materials in the sense that they could offer a model of how the core concepts and skills could be contextualised. Where the resources were available, these contextualisations could be adapted to suit the needs of different sectors and learners. For example, a module on energy could be explored in relation to the needs of learners in either RDP-linked projects or industries.

Criteria for the selection of core themes could include the extent to which the theme:

- is applicable nationally but has the possibility of local contextualisation;
- builds the ten generic competencies/outcomes;
- ensures that deep learning of concepts and skills occurs through careful sequencing and re-cycling across contexts within the curriculum.

3.4.2.5 Core and options within the curriculum

Because adult learners in South Africa come from a wide variety of backgrounds and have a range of different needs, the new curriculum will offer both **core** and **optional** courses.

Optional courses could include courses with a more applied or specialised focus on practical or income-generating skills. These applied or specialised (optional) modules could run parallel to the core and offer specific skills for particular sectors or contexts. The core could only be required for learners wishing to proceed to further education and training.

The structure of this model is still a matter of research and debate. For example, whether the core and option/specialisation modules are developed nationally or regionally still needs to be answered.

3.4.3 Core teaching and learning processes

The new curriculum framework recommends the following core processes (principles for learning and teaching, including assessment):

- An emphasis on the development of learning strategies and reflective learning (thinking about learning) which promotes planning and decision-making skills.
- The need to build on prior knowledge and experience.
- The need to encourage transfer of skills, by e.g.

    - opportunities to practise new procedures across different types of problems;
    - opportunities to practise skills and procedures across different contexts;
    - practice in discussing and thinking about the procedures used to solve problems.

- A task-based or problem-solving approach to learning which draws on a wide range of cognitive and communication skills.

The rest of this section explores in more detail the following features of the proposed methodology:

- thinking about learning
- task-based problem-solving approach
- recycling of skills and concepts
- transfer
- implications for assessment

3.4.3.1 Thinking about learning (metacognition)

Thinking about learning skills and strategies (or "learning how to learn" skills, metacognition) help the learners to reflect on how they are solving problems, taking decisions, learning, etc.

Exercises which might build these skills include goal setting, monitoring and evaluating progress, evaluating participation in learning activities, etc. The table on the following page illustrates the kinds of tasks at each level which could build these skills and strategies.

NOTE: These tasks are illustrative only.

Competency/outcome 1

Thinking about learning	

LEVEL **1**	At this level, learners should, for example: • be aware of their own needs, learning goals and motivation • reflect on the progress they have made • talk about the use of what they are learning • talk about how they did/learnt something • talk about why they are doing something • talk about how they could have done it better • talk about their learning strengths and weaknesses • understand the concepts of learning goals, progress and evaluation • be able to evaluate their progress against the goals • talk about the materials and teaching method • talk about how they like to learn • think about how they can practise what they have learnt outside the learning venue • think about how they can become more confident learners • negotiate some goals and content
LEVEL **2**	At this level, learners should, for example: • do all of the above, but with less prompting and in greater depth • become aware of a range of learning strategies, determine own strategies or assess appropriate strategies for a given task • monitor or correct their own spoken or written tasks
LEVEL **3**	At this level, learners should, for example: • do all of the above, but with even less prompting and in greater depth • become aware of explicit goals of task, for example, the materials could leave out the goals and learners could fill them in for themselves; the materials could offer learners choices and require them to plan their time accordingly, etc. • be able to assess each other's work and offer constructive criticism
LEVEL **4**	At this level, learners should, for example: • do all of the above with very little teacher support • make decisions around choices in the materials • assist each other in accessing and comprehending material without relying on the teacher (or facilitator) • select most appropriate and efficient strategies for a task they have been set, evaluate its usefulness and modify it if necessary • organise and plan own learning

3.4.3.2 Task-based problem-solving approach

The framework policy proposes that the curriculum should be structured around problem-solving tasks through which learners can acquire the core skills and explore the core concepts. Through resolving or completing these tasks, the generic competencies/outcomes could be developed.

The table which follows the "Thinking about Learning" table illustrates the kinds of tasks at each level which could build and demonstrate Competency 5, Collecting, Analysing, Organising and Critically Evaluating Information.

NOTE: These tasks are illustrative only.

3.4.3.3 Recycling of skills and concepts

The curriculum framework advocates a cyclical approach to the sequencing of content. This approach is based on research which shows that learning is an organic developmental process and not a linear progression through discrete stages. Through the re-presentation of core concepts and skills at different levels (and in increasing detail and complexity), the generic competencies/outcomes are developed.

The tables of tasks for competencies/outcomes 1 and 5 illustrate the recycling of skills at the four ABET levels.

Competency/outcome 5

Collecting, analysing, organising and critically evaluating information

For ALL LEVELS learners should demonstrate the capacity:
- to state purpose for collecting information
- to identify sources or follow guidelines for collecting information
- to identify strategies for accessing information
- to access, read, critically evaluate, select and record information
- to order and present information for a particular audience
- to evaluate presented information against purpose

Examples of Tasks which demonstrate Competency 5 at four levels of ABET

LEVEL 1	Learners should be able • to debate whether to spend limited school funds on a playing field for the school or books for the school library (in the first language) • to write a list of words and phrases which summarise arguments for and against each (in LI). • to write a short letter to the school committee (in LI).
LEVEL 2	Learners should be able • to do a survey to establish the need for a product which could be produced by a small business (in LI). • to present a summary of the findings (combination of written and oral English, if this is the L2 and future medium of instruction)
LEVEL 3	Learners should be able • to find out about a site-and-service scheme from two or three sources (e.g. newspaper, friends, speaker), some of which are in the L2. • to compare and analyse information received • to synthesise a response or make a judgement (all in L2 with LI support)
LEVEL 4	Learners should be able • to select and read several accounts of an event (newspaper article, poem, letter, police report) • to look at the context in which they were produced • to interpret them from different perspectives • to identify points of conflict between them • to identify criteria for judging them • to synthesise perspectives into an argument to support their own points of view (all in L2 with possible L1 support)

3.4.3.4 Transfer

Whether or not learners can transfer their knowledge and skills to new contexts, both within and beyond the classroom is the ultimate test of whether learners have learnt what you hoped they would.

Transfer between tasks is built into the lessons through helping learners to become aware of and reflect on and evaluate their learning processes and strategies (thinking about learning) and through repeated opportunities to use the same concepts and skills in different tasks in other lessons and beyond the learning venue (recycling of skills and concepts). The following exercise illustrates how this process can be built into materials. These tasks predominantly build the learners' capacity to "think about and use learning processes and strategies" (Competency 1).

Considering a range of learning strategies

Do I understand how to do these things?
Read below some of the things learners can do to help them learn English. If you don't understand one, discuss it with other students and your teacher. When you understand, put a tick in the box (/) beside a statement.

I understand how

/.   *In conversation, to try new words or phrases which I have learned.*   ☐

2.   *(a) to use a bilingual dictionary to find word meanings,*   ☐
    (b) to use an English dictionary to find word meanings.   ☐

3.   *In conversation, to sometimes repeat a word, and ask for help with my pronunciation.*   ☐

4.   *To study a bilingual grammar book at home.*   ☐

5.   *(a) to ask people if they understand what I mean.*   ☐
    (b) if they don't understand me, to repeat it, speaking slowly and careful/y.   ☐

6.   *To use TV, radio, or cassette recorders to practise listening (or speaking).*   ☐

7.   *If I don't understand someone, to:*
    la) ask the person to speak more slowly.   ☐
    (b) ask the person to explain what they mean.   ☐

8.   *To try to guess the meaning of anything I don't understand by using:*
    (a) clues in the situation.   ☐
    lb) key words in the sentence.   ☐
    (c) the speaker's gestures and expression.   ☐
    (d) the speaker's intonation.   ☐

Do you do any of these things? If so, are they helpful?

Extract from Willing (1989) p.31

3.4.3.5 Implications for Assessment

If the curriculum is to achieve its goals, many of which refer to cognitive skills such as critical thinking, and affective issues, such as building learner confidence, then the assessment of the curriculum has to be broad enough to encompass these outcomes. At the same time, the assessment procedures need to meet the need for national standards. In order to accommodate this range of objectives, assessment procedures need to be:

- initial (based on recognition of prior learning and experience)
- formative (on-going, during a programme),

  - informal (subjective, continuous on a day-to-day basis, integral to teaching) and, if necessary,
  - formal (more objective, administered at intervals, often externally devised and produced).

- summative (at the end of a programme).

Formalised assessment may be necessary to meet the need for equivalence across systems, but should be complemented by a process approach to assessment. A process assessment task might entail presenting learners with a problem which they must solve by using the resources available to them. This would test what they are able to find out for themselves using a range of skills, and not what they can memorise.

Other procedures which can be used in a process approach to testing include: self-assessment (e.g. journals), negotiated assessment (where learners set their own goals and standards), peer assessment, continuous and on-going assessment, portfolios, and student profiles.

3.5   Languages of learning

The curriculum framework recommends a language policy which takes into account both short-term and long-term needs:

Short-term: that in ABET 1 learners should learn through their first or home language. From ABET 2 onwards, there should be a gradual transition to English as the language of learning.

Long-term: that national language policy will affect choices as to the languages of learning. A bilingual model of education might be more able to meet the need for a general education.

3.6   Summary

- The curriculum describes the broad orientation and sets the broad goals for the teaching and learning process.
- The outcomes-based (or competency) framework of the new national curriculum can be seen as describing the range of roles learners should be able to fulfil if they are to participate effectively in the development of their social, economic and political environments.
- Competencies/outcomes are underpinned by knowledge, understanding, skills, and include affective outcomes and the ability to transfer these to new contexts.
- The ability to transfer knowledge and skills from one context to another is crucial in demonstrating that competency and as evidence of learning.
- Subject content provides an organising context for the development of the skills and competencies/outcomes.
- The new national curriculum describes a broad general educational content - core concepts draw on a range of traditional subject disciplines.
- Content is presented in an integrated fashion. Themes can be used as organising contexts for materials.
- Core concepts and skills should be re-cycled in different ways across different core subject areas. They combine in different ways within each theme.

4. IMPLICATIONS FOR MATERIALS WRITERS

4.1   The writing process

The competencies/outcomes are a checklist against which to "check" and evaluate materials. They do not define a syllabus or course. They should be seen as "beacons" or "direction-finders" by materials writers. Together with the broad curriculum goals, they indicate the kind of orientation the materials should have if they are to fit the framework.

Therefore, writers need to:

1.   keep the roles described above in mind as final end-points or exit outcomes;
2.   work backwards from these - to allow these exit competencies/outcomes to guide and structure the materials;
3.   at the same time, be guided by what learners can actually achieve at the different levels, in different subject areas and in different languages.

The writing process is therefore **both** a bottom-up **and** a top-down process. It is bottom-up in the sense that it is guided by learners' needs, what learners can do in the time available and what works in the classroom, and it is top-down in the sense that the development of materials should be informed by and constantly checked against the framework.

All materials should be comprehensively piloted and the levels adjusted accordingly. The process of piloting should ensure that materials are appropriate and effective.

4.2.   The learning cycle for problem-solving tasks.

The whole thrust of the curriculum framework is towards problem-solving and the development of critical responses. It attempts to avoid replacing the content weighted emphases of traditional curricula with new content "to-be-learnt-off-by-heart". This means that materials should seek to question and challenge assumptions, rather than present knowledge in an uncritical way.

Being critical means being able:

- •   to distance yourself from what you are viewing,
- •   to explore underlying causes for the event or opinion,
- •   to see it from different perspectives,
- •   to compare and evaluate these perspectives and
- •   to synthesise a critical response to the event or opinion.

Materials which attempt to develop a critical and independent response might follow a problem-solving and critical thinking cycle. For example, the module on Energy could follow the cycle suggested by the diagram on the following page.

In this cycle, content and process are seen as inseparable and mutually dependent. Although the cycle lists "compare, analyze, plan, act, reflect" as separate activities, these processes are iterative and integrated at every stage. In this way, the competencies/outcomes are developed in an integrated way.
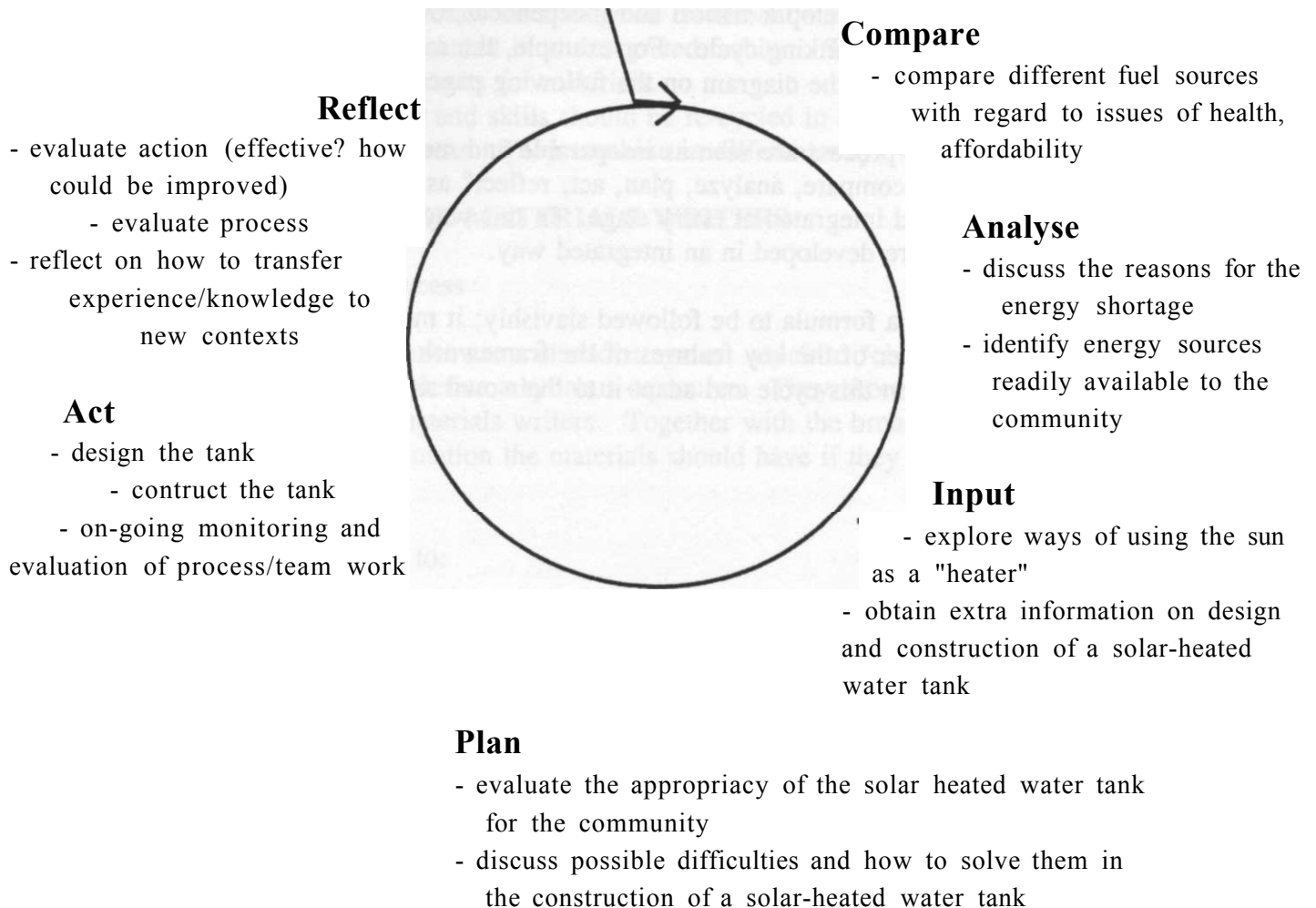
NOTE: This cycle is not a formula to be followed slavishly; it merely recommends a process that takes a number of the key features of the framework into account. Writers should feel free to draw on this cycle and adapt it to their own situation and needs.

Critical Reflective Learning Cycle

(for module: Energy from the sun)

Learners' experience
- think about different fuel sources
- discuss energy shortage/crisis
- reflect on own experience of the
  conditions under which things "heat up"

Reflect
- evaluate action (effective? how
    could be improved)
        - evaluate process
- reflect on how to transfer
    experience/knowledge to
        new contexts

Act
    - design the tank
        - contruct the tank
    - on-going monitoring and
evaluation of process/team work

Compare
- compare different fuel sources
    with regard to issues of health,
    affordability

Analyse
- discuss the reasons for the
    energy shortage
- identify energy sources
    readily available to the
    community

Input
    - explore ways of using the sun
    as a "heater"
- obtain extra information on design
and construction of a solar-heated
water tank

Plan
- evaluate the appropriacy of the solar heated water tank
    for the community
- discuss possible difficulties and how to solve them in
    the construction of a solar-heated water tank

4.3   Specifications for the presentation of materials

In accordance with the above policy framework, all proposals for modules/courses or course outlines for ABET, including technical/vocational modules, should contain the following information:

1.   Title of unit.
2.   Purpose of unit; target audience.
3.   Credit value in terms of nominal time (see below).
4.   Appropriate level in the National Qualifications Framework.
5.   Statements of learning outcomes .
6.   Listing of prerequisite skills/competencies/outcomes/knowledge
7.   Language(s) of learning.
8.   Form or mode of delivery (pedagogy and assessment, distance/open learning, structured work experience, assignments).
9.   Description of possible options for assessment.
10.   A representation of the skill elements of the module (e.g a skills pyramid or unit map) and their relationship to the competency framework/exit outcomes.
11.   Details of the subject area, theme or other content which will form the basis for the development of skills and lead to the achievement of the broad outcomes/generic competencies/outcomes.

Credit value

The credit value for a unit would be in terms of nominal time (of 40 hours) for core and other units. A module (course) may consist of a number of units or of a single unit; modules can combine core and optional units but assessment of each unit should be separate to ensure that standards are achieved at the right level. Where two or more subject areas are integrated, assessment criteria should cover both subject areas.

NOTE: "nominal time" includes only contact time; additional hours may be spent outside the classroom in applied situations or homework.

5. ABET LEVELS AND OUTCOMES

The generic competencies/outcomes provide a framework for a range of syllabi and materials. Levels will be set across each key competency at each of the four ABET levels. These levels will fit within those of the National Qualifications Framework and will be defined in terms of outcome statements for each level.

The process for defining these outcomes and standards still has to be agreed upon by all stakeholders. This work is currently being taken forward by the NTB Working Group 9 and other SAQA related processes (e.g. IEB, NETF).

Criteria for placing materials at different levels

The criteria for specifying levels and placing them at different levels are still being researched, although they are likely to be something like the following:

- language of learning (L1, L2)
- degree of predictability of task/content
- degree of familiarity of task/content
- degree of complexity of task/content/language
- nature of task e.g. problem-solving
- level of support
- extent of transfer required

NLC/CMDU (1994)

These Interim Guidelines will be periodically up-dated as new policies are agreed upon by all stakeholders.

6. REFERENCES

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APPENDIX 1: GENERIC OUTCOMES FOR THE ABET CURRICULUM

Competency 1: Thinking about and Using Learning Processes and Strategies	This is the capacity — to be aware of the processes and strategies one uses to think and learn eg reflect, hypothesise, categorise, integrate, memorise, draw analogies. ~ to consciously use these processes and strategies to learn more efficiently and to plan, monitor and evaluate one's performance on any task — to consciously use skills, procedures and information learned or used in one context in another context (transfer).
Competency 2: Solving Problems and Making Decisions	This is the capacity ~ to see a problem as consisting of a number of elements, to generate strategies for arriving at possible solutions, to establish criteria for choosing the most appropriate solution and to evaluate the effectiveness of the chosen solution.
Competency 3: Planning, Organising'and Evaluating Activities	— to plan and organise one's own activities, including making good use of time and resources, sorting out priorities, and monitoring and evaluating one's own performance.
Competency 4: Working with Others as a Member of a team/group/organisat-ion/ community	This is the capacity — to interact effectively with other people both on a one-to-one basis, in groups and in organisations, including understanding and responding to the needs of others and working effectively as a member of a team/group/organisation/community.
Competency 5: Collecting, Analysing, Organising and Critically Evaluating Information	This is the capacity — to locate information, sift, interpret, sort and synthesise information in order to select what is required and present it in a useful way. — to critically evaluate both the information itself and the sources and methods used to obtain it.
Competency 6: Communicating Ideas and Information	This is the capacity — to communicate effectively with others using a range of spoken, written, graphic and other non-verbal means of expression.
Competency 7: Participating in Civil Society and Democratic Processes through understanding and engaging with a range of interlocking systems (legal, economic, political, social)	This is the capacity: — to contribute to the shaping and maintaining of a democratic society through understanding a range of interlocking systems (legal, economic, political, social) and participating in democratic structures and processes. — to engage with a range of state and non-governmental institutions (eg social, political, legal, educational, health) to obtain access to information and services — to exercise and defend one's rights.
Competency 8: Using Science and technology critically to enhance control over the environment in a range of fields and contexts.	This is the capacity —to apply scientific and technological ideas (eg energy, conservation, germ theory, ecosystems) to enhance control over the environment and to improve the quality of life for oneself and those with whom one shares the environment. — to critically evaluate the effect of technology in different fields (eg health, agriculture, environment, pollution) and contexts (eg urban, rural, workplace, home, community).

Competency 9: Applying Mathematical Concepts and Tools	This is the competency ~ to apply mathematical functions (addition, multiplication, division, etc) concepts (number, space, etc) and processes (estimation, problem solving etc) for multiple purposes. — to use a variety of mathematical tools (calculators, etc)
Competency 10: Understanding and using the Core Skills, Concepts and Procedures that underlie the Domains of Social and Human Sciences; Natural Sciences; Arts, Language and Literature	This is the competency — to apply core skills, concepts and procedures from a number of domains in order to critically interpret and evaluate information and evidence. — to use such information and evidence to participate in local and national decision-making on a variety of issues (allocating resources, locating industries, etc)

APPENDIX 2: DEFINITIONS OF KEY TERMS

Accreditation	giving official recognition to an organisation or institution and/or the courses run by these organisations or institutions i.e. certifying that they meet required standards.
Adult Basic Education and Training	the provision of education and training, including basic literacy and numeracy, to a level equivalent to the General Certificate of Education to adults who have had little nor no formal schooling.
Articulation	two or more systems **articulate** with one another when courses or modules completed within one system are equal in value to those completed in another. Learners are able to follow career paths by moving freely between various institutions and learning contexts.
Assessment •	collecting evidence and rating learners' performance gainst criteria for the purposes of self-evaluation or external certification.
Based	to base curriculum designing and instructional planning, teaching, assessing, and advancement of students on a desired demonstration.
Certification	providing a document that proves a learner has reached a certain level of achievement. Certification is normally granted by the organisation or institution that offers a course.
Competency	a competency refers to the broad of the learning process. It can be described as having three dimensions: 1. the ability to apply a skill to perform a task. **2.** a theoretical understanding of the task. 3. the ability to transfer knowledge, skills and understanding to other tasks and situations.
Equivalency	a course or module is considered **equivalent** to another course or module when it teaches roughly the same skills and concepts at the same level.
Exit outcomes	complex role performances required of learners in work and life; based on higher-order competencies/outcomes. Key organisers and priority outcomes of all modules. Superordinate priorities in framing goals and expectations.
Framework	structure that is binding on all stakeholders in an education system; based on agreed principles and aims; guides the writing and sequencing of educational courses.

Generic competency	generic competencies/outcomes provide a frame work for assessment and equivalence across systems. They re "generic" in that they cut across the content areas and prioritise the kinds of knowledge and skills which are important to a general education.
Integrated approach to	content from a range of traditional subjects would be integrated under certain themes or topics.
Language-across-the-curriculum	an approach to language teaching that sees language as playing a central role across the curriculum. In all curriculum areas (history, science, development studies, etc.) learners learn skills, knowledge, concepts and attitudes mostly through language. In this way, "every curriculum area develops language competence... At the same time, mastery of a particular curriculum area is partly dependent on mastery of the language of that area" (Baker, 1993). A language-across-the-curriculum approach can be used for any language, whatever the medium of instruction.

Module

a unit of learning which consists of a coherent and explicit set of learning activities. Modules may vary in length and be used in a variety of contexts. A module:
- must have explicit aims.
- must specify intended outcomes.
- must give an indication as to the type(s) of evidence which would be appropriate to the outcomes.
- must, where appropriate, specify any learning which may be required.
- may be subject-specific, occupation-specific or cross-curricular, or a combination of these.
- should provide for a differentiated learning experience.

Outcome	performance of a competency in a particular context; "a culminating demonstration of the entire range of learning experiences and capabilities that underlie it in a performance context that directly influences what and how it is carried out" (Spady, 1992). C.f. competency.
Outcomes-based	to design and organise all curriculum and instructional planning, teaching, assessing, and advancement of students around successful learning demonstrations for all students.
Processes	in this document, processes are defined as methods of teaching and methods of assessing progress or achievement.