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E.T.D. Practices Project

Quarterly

ETD Practices Project Quarterly 2.1

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Editorial

Dear Reader

It has been quite some time since you heard from us. We have had some changes in the structure of the project since the re-institution of the National Training Board (NTB) under which we operate. As you may have noticed, the name of the project has also changed. Some stakeholders felt that focusing on "ETD practice" would include those persons who do not regard themselves as ETD practitioners, but who nonetheless work within an ETD context. The Steering Committee agreed to the change of name. In addition, it has been decided to incorporate the newsletter of the ETD Practices Project into the newsletter which the NTB will publish covering all projects within the framework of the National Training Strategy Initiative. However, we will continue to publish the Quarterly as we would like to interact directly with the ETD field and stimulate discussion.

The Fourth Plenary of the ETD Practices Project took place on 17 September 1996 at the Eskom College in Midrand. All Plenary members who attended have received the minutes of that meeting. For those who did not attend and all other interested parties a reportback has been included in this issue.

If you remember, at the Third Plenary in March 1996 a copy of the terms of reference for this project was distributed. In the meantime we have aligned ourselves under the new NTB and have revised the terms of reference accordingly in a succinct and accessible way. The revised version has also been included.

Furthermore, we would like to share two articles with you which have influenced our thinking in the last few months. Both articles draw on concepts with which we have been grappling. The one article is on "standards" and the other one is on "modularization, outcomes and curriculum". These issues are reflected in the paper on the work in progress and in the reportback on the development of options in the process of standard setting.

We hope that this issue will contribute to discussions within your organisations.

For the Editorial Team
Yours sincerely
Eileen Meyer
(Deputy Project Manager)

Work in Progress:
An Overview of the ETD Practices Project

By Jeanne Gamble
Research Co-ordinator

We would like to begin by briefly describing the Project's work so far. Many of you have wondered what we have been doing and why we are taking so long to come up with a set of draft unit standards. Some people have told us that they do not understand our Executive Summaries, or that they do not understand what this kind of data has to do with unit standards. Some people have hinted that we should not be trying to re-invent the wheel. Why could we not simply take unit standards already developed for teachers and trainers in countries like Australia or New Zealand and adapt them for South Africa?

There are a whole range of reasons, why we have not met the demands made upon the Project in the way which many people expected from us, not least because we wanted to remain true to the first validity criterion for our model of ETD practitioner development as stated in the NTSI, namely *'that the model should be indigenous to the needs of the SA practitioner.'*

In order to explain what we have been doing and why we have been following this path, we need to return to the beginning of the Project.

1. What was then?

At the end of 1993 when Working Committee 3 of the NTB Task Team submitted its report on the ETD practitioner, the model was really just a skeleton or framework , based on the following main assumptions:

1. that an 'integrated approach to education and training would pose a crucial role for ETD professionals in the reconstruction of education and training practices in South Africa, requiring new or additional skills and capacities and broader understanding of the world;

2. that 'helping others to learn' is increasingly happening as part of every job and not only as an activity undertaken by full-time practitioners;

3. that it cannot be assumed that just because someone is experienced in a particular area of work, they automatically know how to teach others.

The proposed practitioner development model revolved around ten provisionally identified roles deemed to be common across a range of teaching-learning practices; it made provision for core competence in three areas, namely occupational expertise or technical or subject matter knowledge, broader contextual understanding, and

expertise in learning-teaching; it recognised the broader scope of ETD work as well as contextual or organisational differences in its underpinning principles.

It should be borne in mind that whilst the model was being conceptualised, the notion of an NQF was also being conceptualised. At that time the NQF consisted of a set of 12 principles, a picture of a framework with 8 levels that would bring General, Further and Higher Education and Training together and a set of proposals for governance and funding.

By the time the ETD Practitioners Project was launched and Working Committee 10 (now called the Steering Committee) started its work in mid-1995, further recommendations for the operationalisation of the NQF were starting to circulate, of which the most important was the proposal for 'unit standards' as the technology or format that would drive NQF registration and accreditation. The Project, as an NQF-related initiative, agreed to produce draft unit standards, progression pathways and qualifications and the Project purpose was formulated as follows:

A negotiated model in terms of pathways, sets of unit standards and qualifications, accepted by the target groups, for developing quality ETD practices, particularly within the National Qualifications Framework.

One of the assumptions underpinning unit standards is that a standard is the smallest unit of performance that can be meaningfully assessed. A further assumption is that unit standards are not tied to a particular job or occupation, but that they relate to broad areas of work performance that span across sub-fields or sub-sectors within a field of learning.

This is where our problem started. The practices for which we had to develop draft unit standards all fell within ETD as the broad field of learning, but could we really say that the roles of 'learning facilitator' or 'assessor' or any of the others were performed in the same way in a community-based project as in an industry training board, as in a university, as in all the other places where ETD practices are located? And could we say that you facilitate learning in Physics in the same way as in ABE(T), as in a History, as in Boiler Making, as in Hair Dressing?

The answer which we got from informal discussions with a wide range of practitioners was: NO. They felt that a role such as a facilitator of learning entailed different things in different occupational roles, such as community worker, technikon or university lecturer, or technical instructor. Role performance is to a large extend determined by *where* the role is performed (in other words institutional setting) as well as by *the nature of the subject/content matter being learned.*

A further point mentioned was that, whilst there may be procedural similarities in role activities, roles clustered or combined in different combinations in different settings. You facilitate learning in certain ways when you have also designed the learning experience and developed the learning materials and you are going to be the assessor. You facilitate learning in different ways when you are working with pre-packaged materials (such as textbooks or manuals developed by others) or if there is no formal individual assessment required.

Perhaps it now becomes clear why we needed to start with a data gathering phase. We could not ignore these messages and simply proceed with a generic version of each role.

That is why we set up two R&D strands: one which would look at institutional contexts to determine the effect that institutional setting has on role combinations and role performances and the other which took occupational setting as the starting point to determine role activities and role clustering. We needed qualitative data to ground our design and development task more specifically.

2. Where are we now?

Our hunches in both the above instances were confirmed. We heard different 'role' stories in different institutional settings as well as different 'role' stories in different occupational settings. This did not surprise us as we never intended the notion of an ETD practitioner to be a flat, lowest-common denominator category that would squash all practices into the same mould.

We are still working at systematising and synthesising the data to work out differences in institutional contexts, role clusters and combinations, shifts in ways of learning and teaching, shifts in modes of provisioning and what progression pathways and qualifications might look like.

We are however, mindful of our deadline to produce draft unit standards at the end of the year for field testing next year. We are also mindful of our limited status as a Project. We do not have the legal or political authority to come up with one version which we would then try to force or persuade all others to buy/accept.

We believe that good policy development should generate options which can be tested and evaluated before final decision-making and implementation.

We therefore propose to build two models - each outlining a 'what could be option - by the end of October:

> one will take the current unit standard format/technology as its starting point to build a model
>
> the other will take "What counts as standards?" as its starting point and develop an appropriate format or technology to express standards.

By model we do not just mean a set of draft unit standards. Both models need to explain the relationship between the following components:

- Context
- Progression
- Modularization

- Qualifications
- Standards
- Curriculum
- Learning outcomes
- Practitioner Performance
- Practitioner Knowledge bases

Neither model will be completely developed. They will contain exemplars representative of an illustrative cross section of ETD practices. They will include a written section which explains the relationships between the various components and the rationale for these.

At the same time we have also been gathering additional data about other types of ETD practices, namely in the SMME sector, in the ECD sector and education and training for disabled people.

In the next session some of the people who have been working in these areas will be presenting progress reports. By the end of October we should also have information gathered by some of our researchers about the impact that the implementation of NQF-type systems has had on ETD practice and on practitioner development in other countries.

Both sets of additional data will be factored into the two models to make them as valid as possible.

We believe that 'option generation' is the most creative way to proceed. As an NQF pilot project we are in the privileged position of being able to help with the bottom-up building of the NQF. Our models will hopefully stimulate debate and decision making in the ETD field, but they should also be able to influence and inform NQF work more generally.

3. Where are we going?

At the end of October we are holding a researcher plenary to involve the researchers who have not directly participated in Phase 2. They know far more than they are able to put into their research reports and they need to be the first co-builders of the two options. In this way we will also be contributing to ongoing capacity building. In addition, the project will also commission an overview of the macro-economic policy document and the ramifications for ETD Practitioners development. The project had also made an input on the HRD Green Paper through secondment of a researcher to work on the area of learnership, focusing on assessment. Information from these various activities will be drawn on to inform the building of the options for standard setting.

During November we will hold a series of stakeholder workshops to obtain broader comment and recommendations. This will help us to refine the two options by December 1996. The field testing phase in 1997 will help us to get to the "what should be" decisions in an informed and participative way.

Reportback on the 4th Plenary held at Eskom Conference & Exhibition Centre on the 17 September 1996

by Melinda van der Merwe

1.) Introduction and Main Issues

The Plenary was welcomed by John Tyers, Chairperson of the Steering Committee. He extended a special word of thanks to Eskom for sponsoring the venue and catering. This was a positive indication of South African commitment to the ETD Practices Project. He expressed the hope that other stakeholders would follow suit for subsequent meetings.

The main issues discussed on this fourth Plenary were as follows:

- Criticism targeted at the Project
- Report on the first two Phases of the Project
- The Current State of Work in the Project
- Some Clarification on Standards Generating Bodies and Kinds/Types of Standard Formats
- Overview of Products for Subsequent Project Phases
- Facilitator's Report
- Date of the next Meeting

Some of these issues dealt with at the Plenary will only be shortly mentioned in this report-back. For further information you are referred to other articles of the Quarterly elaborating on these topics.

2.) Criticism targeted at the Project

Since its inception, the ETD Practices Project has been subjected to criticism that the research was taking too long and was a waste of time and money. In addressing these issues it has to be stated that the model had to be custom-made for indigenous ETD Practitioners and that it also had to be grown from the "bottom up", in order to be most beneficial to the National Qualifications Framework (see also the paper: 'ETD Practices Project Plenary 17 September 1996' by Jeanne Gamble, Research Co-ordinator, in this issue). The Green Paper on a Human Resources Development Strategy (which will be published in the near future) also states the need for transforming skills development within the country, which is what the research is addressing. Besides that, the research and development workers on the project were in fact dedicating far more time to the project than the one or two days per week for which they were being paid.

3.) Report on the First Two Phases of the Project

The following report covers the period April to August 1996 which is the end of phase 1 and half of phase 2.

a) Phase 1 - Results Achieved

At the end of April 1996 all senior researchers had submitted final draft reports and the submission of the final report was extended to the end of May 1996 to be able to address gaps in the reports. 9 cluster reports and 4 grouping reports were finally submitted and found to be satisfactory. Copies of these reports were forwarded to the National Training Board and the GTZ at the beginning of June 1996. This signalled the end of phase 1.

Subsequently executive summaries of all the reports were submitted to the NTB and the Steering Committee. The summaries were collated and sent to all Plenary members in preparation for this meeting on 17 September 1996.

b) *Phase 2*

Phase 2 started in July 1996 with the re-appointment of some of the researchers to consolidate and synthesize the data. A conceptual core team was established to drive the thinking work. In addition, with the endorsement of the Steering Committee, the following sectors were taken on board to ensure meaningful coverage of the field: Small, Medium and Micro-Enterprises (SMME); Early Childhood Development (ECD); and the Disabled People of South Africa.

The following activities were identified to take the conceptual development strategy forward:

- Cross-sectoral data synthesis and analysis in order to understand current reality;
- Specification of options to identify what could be done in terms of quality progression, learning-teaching practices and standards setting processes;
- Model Development in order to put forward proposals for what should be in terms of developing quality ETD practices.

At the last Steering Committee meeting on 7 August 1996, it was felt that, as the project was entering a critical phase, it was necessary for the project as a whole to complete the discussion on terminology which was started during the "goal oriented project planning" workshop (known as ZOPP) last year August, so that a common understanding of terms used in this project could be reached. A terminology workshop was held on the 2 October 1996 to attempt to address the issue.

Furthermore, the conceptual core team is engaging the Steering Committee in the discussions of key issues which have to be addressed in this phase, for e.g. What is a standard? (in terms of qualifications or units?); What links should be made to curriculum development? The key issue for this phase is looking at the preliminary process of standard setting to develop a guideline for standard setting.

4.) The Current State of Work in the Project

The reports held at the plenary reflect different aspects of the current state of work in the project.

4.1) **Jonathan Cook**, Research and Development Facilitator and member of the conceptional core team, firstly elaborated on the following principles which have emerged out of the questioning of the data:

Principles in Progress

Is it possible to do justice to the integrated complexity of good ETD practice within an outcomes and modular approach?

He established that:

1. The model should encourage the integration of ETD standards so as to capture the whole, which is greater than the sum of its modular parts.

2. We need to accommodate knowledge, capabilities and value orientations within standards.

3. We need to locate the standards within contexts, while allowing for portability.

4. We need to accommodate the various categories of part job ETD practitioner, and interface with other fields of qualifications (specifically vocational and management).

5. We need to begin with the holistic learning process, and allow roles, subfields, rules of combination for qualifications and other boundaries to emerge from the situation of the learner ETD practitioner. The learning path should be determined by the situation of the learner, rather than the boundaries of institutions.

6. Therefore, the ETD roles should integrate with the process followed by learners.

7. We need to identify levels which reflect different levels of ETD practice, not levels of the learner.

8. Learning outcomes should be distinguished from employment criteria.

9. We need to reflect the realities of the field, while creating a framework which can be transformational.

Secondly, he elaborated on one of the outcomes of phase 1, namely the role of ETD qualifications in the career of ETD practitioners. He distinguished the role of ETD qualifications in the following way:

Primary means that the ETD qualification is the practitioner's primary source of identity and basis for progression

Specialisation means that the practitioner enters the field on the basis of other qualifications, but then requires an ETD qualification to move into a particular area of practice

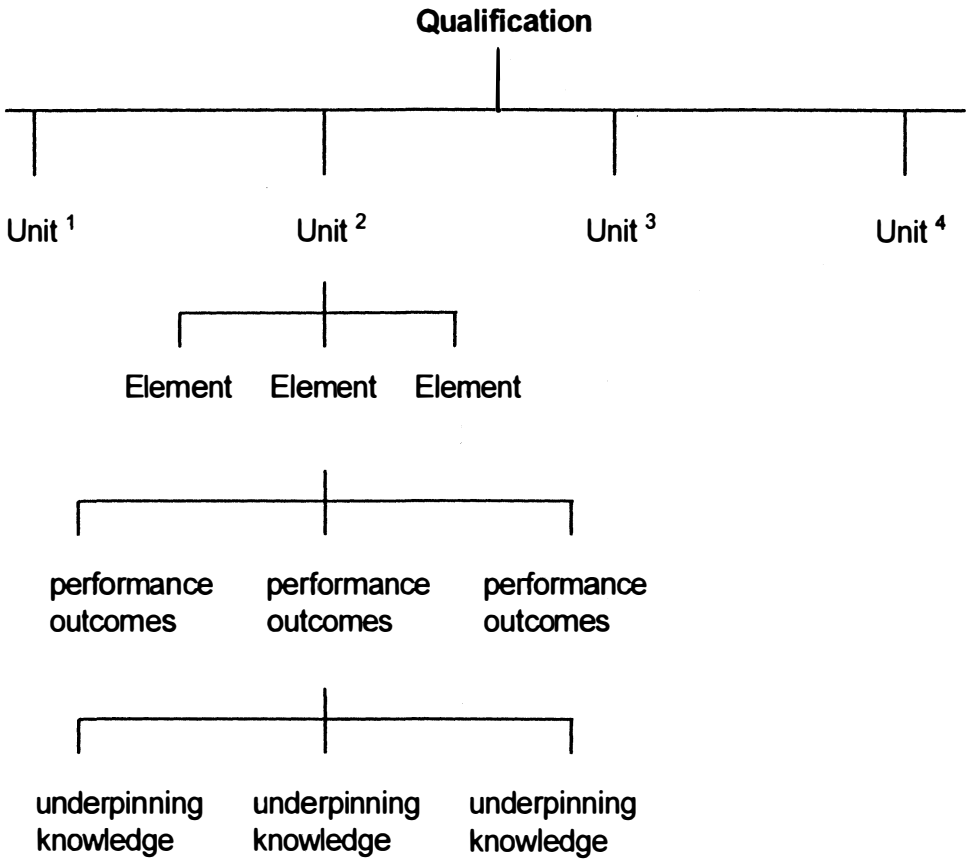
Part Qualification means that ETD modules form part of and contributes to the other qualification they require

Add-on means that it is common not to have any ETD qualification in this area of ETD practice

	Primary	Special.	Part	Add-on	None
Existing	Teachers ABE/T F/T trainers HRD specialists Community workers?	HRD specialists		University Technikons Colleges F/T trainers HRD specialists Community workers	University Line Community workers
Possible extension			University Technikons Colleges F/T trainers HRD specialists Line Community workers		

4.2) **Daryl McLean**, Research and Development Facilitator and member of the conceptual core team, reported on work in progress toward standard-setting formats. He said that the research would be putting forward two options for standard setting by the end of the year, with exemplars for each. He listed some of the problems with unit modularization in present practice which the data collection and which research in other parts of the world pointed to.

Unit Modularization
(The Usual Way)

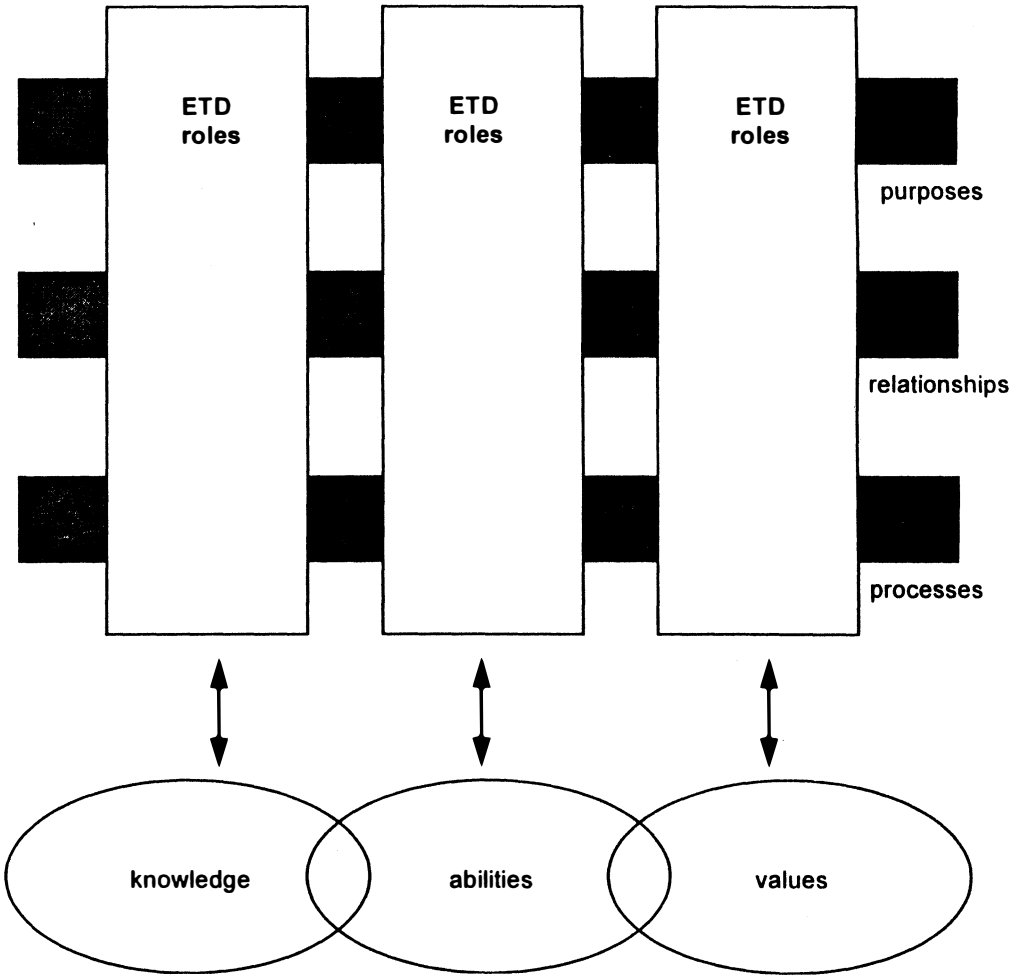


Problems with Unit Modularization

- it shows outcomes as bits, without showing what holds the bits together
- learners find it difficult to select and combine bits
- "knowledge" tends to be treated as a list of labels, facts and concepts
- performance outcomes tend to be overspecified and standardized

He then described how the work on standard-setting was attempting to address these problems, and outlined one of the standard-setting options which is being developed:

Exploring How to deal with the Problems of Unit Modularization



It should be borne in mind that this is only "work in progress" and not yet a finalised result.

4.3) **Siphamandla Xulu**, Research and Development Facilitator, and a member of the conceptional core team, reported on the SMME sector. He highlighted sites, purposes of interventions, emergent roles and three models of training i.e. Management / Business skills, technical skills and Entrepreneurship all leading to a successful enterprise.

SMME Sector

1. SMME Intervention Sites

NGO's (Training; Lending; Marketing)
Corporates (Training; Procurement)
Government Dept's (Support Provider agencies, e.g. BuDs; procurement)
Tertiary Institutions (Research; Training; Consultancy)

1. Purposes of Interventions

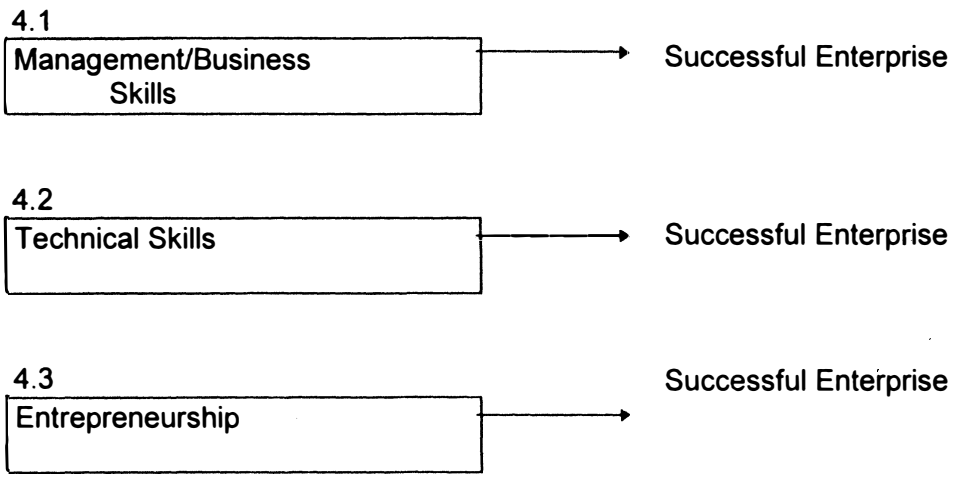
Product Development
Product Improvement
Career Guidance

3. Emergent Roles

Diagnostic (Problem identification in an enterprise)

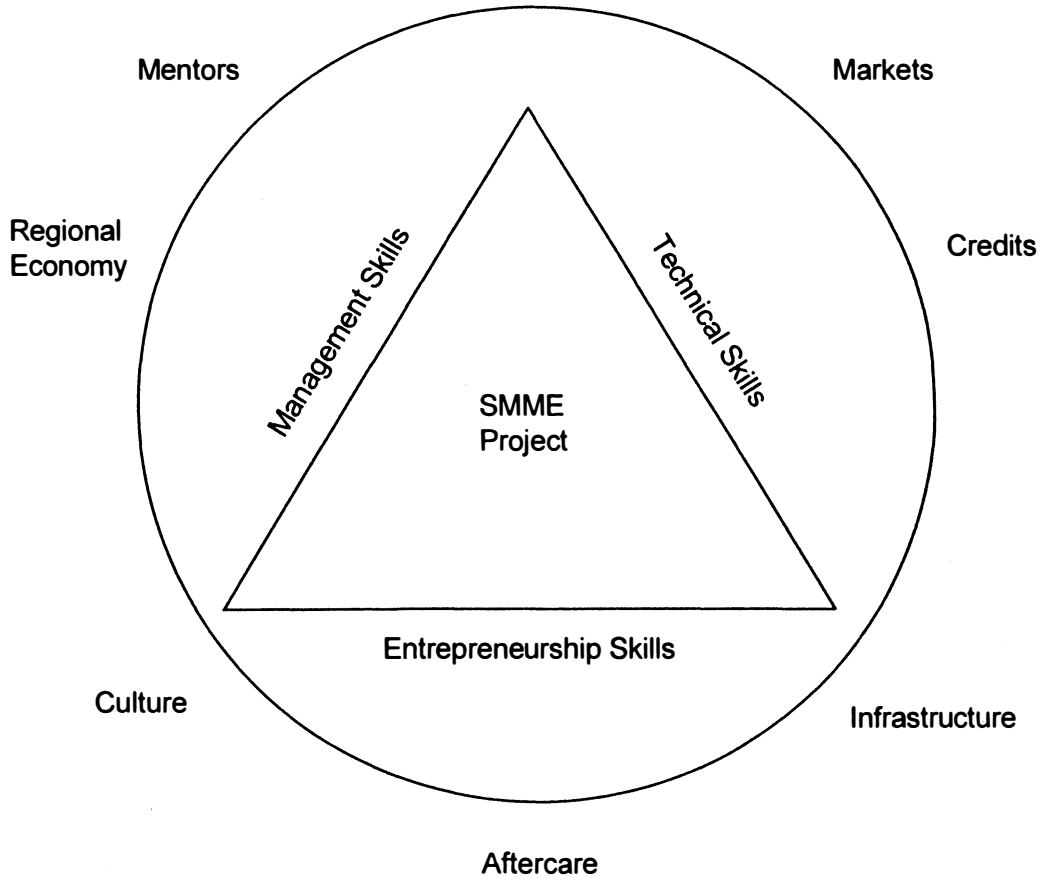
Consulting
Brokering
Lobbying
Marketing
Procuring

4. Models of Training



He concluded by presenting an example of an integrated training model:

An Integrated Training Model



The model puts on the centre the potential or existing business venture. It emphasizes the holistic nature of intervention, mapping out the role of all sets of skills:

- *Entrepreneurship skills* refer to the personal attribute, (life) skills and knowledge that an entrepreneur possesses or can be assisted to develop, such as innovativeness;

- *Technical skills* refer to 'hard' skills that help in creating a product or service;

- *Business skills* refer to business management skills, such as book-keeping.

The circle around the triangle represents the environmental factors that also impact on enterprise development. These have to be factored in by support programmes.

4.4) **Bothlale Nong**, Research and Development Facilitator, reported on the 'Early Childhood Development' (ECD) sector. She explained that the overall purpose of ECD is to make sure that the foundation is properly laid for a child's subsequent growth, development, and 'readying' for participation in society. The Department of Education's 1994/95 Annual report has committed itself to the definition of ECD as: 'the physical, mental emotional, moral and social development of children from birth to nine years (...). ECD encompasses more than education, but the education component is important as it prepares the child for the world of learning.' In July 1996, the Interim Policy Guidelines for ECD were gazetted by the Minister of Education.

Like other fields with non-formal and NGO histories, the ECD sector is an unco-ordinated, fragmented field struggling with issues of dwindling funding, projects closing down and a future that demands rethinking for organisations to become sustainable and income-generating. Due to the lack of financial support, caregivers/childminders, or educators in ECD have mostly been very poor, illiterate and marginalised women.

As to the accreditation of ECD qualifications, non-formal training courses are offered by private or non-governmental organisations and have in the past been accredited by the South African Association for Early Childhood Educare (SAACE). Formal courses, offered by tertiary institutions were accredited by the relevant institutions.

Apart from financial problems, at present the ECD sector is suffering from a general confusion about accreditation of training courses, an anxiety about the recognition of the diversity of programmes (i.e. balancing this with national objectives and standards) and an ongoing formal vs. non-formal programmes debate.

Recommendations regarding the way forward for training, qualifications and accreditation, which are partly based on consensus in the ECD sector are as follows:

- formal and non-formal training opportunities at secondary and tertiary level need to be part of an integrated and co-ordinated system, subject to the same overall system of accreditation;
- formal and non-formal courses at each level must have equal status for job qualification and salary;
- there should be viable progression, articulation and mobility between non-formal and formal training systems with RPL as an integral part of the process (for this purpose, an adaptation of the American community college system has been proposed);
- there are clearly defined career paths, located at different levels within the NQF, in order to set standards;
- the implementation of the NQF requires the development of performance criteria for assessing learning outcomes.

Concerning the role of the ETDP Project in this process, it should be clarified:

- how the ETDP Project is related to the Interim Accreditation Body (IAB) and COTEP;
- how the ETDP Project's research on ECD fits in with the National and Provincial departments' initiatives and pilot projects in ECD.

Finally, a plea was made that the ETDP Project should continue to negotiate and explore links between its research and other initiatives. This will be taken forward by the Research and Development Facilitator in this sector through continuing consultation, workshops and advocating the NQF and the aims of the ETDP Project.

4.5) **Nomonde Radebe**, Research and Development Facilitator, reported on training for disabled people. She stated that work only recently commenced in this sector and that a report would be made available to the plenary as soon as emerging data was written up.

5.) **Some Clarification on Standards Generating Bodies and Kinds/Types of Standard Formats**

During the course of the Plenary a couple of uncertainties concerning the **roles of the South African Qualifications Authority (SAQA) and the ETD Project** as well as the possible **kinds/types of standard formats** were clarified:

- The role of the **SAQA** is, among others, to recognise the National Standards Bodies (NSBs). And, it is the NSB that will establish or recognise a Standards Generating Body (SGB). One of the criteria for recognition of a SGB is to be representative of a sub-field.

- The role of the **ETD Practices Project** is to facilitate the process of standards setting by developing exemplars of unit standards corroborated and tested in the Education Training and Development (ETD) field. It is **not** a SGB as it does not represent a sub-field. It also has a conceptualizing role in the development of the qualifications framework in particular for ETD practitioners.

- Regarding administrative issues the post of Chief Executive Officer for **SAQA** was already advertised. Nominations to serve on the twelve National Standards Bodies (NSB's), including one for Education, Training and Development, were also being called for. One of SAQA's roles would be to act as a clearing house for information on standards. But before this could happen, the information about standards would have to be put in place by SAQA in conjunction with the NSB's.

- In the process of creating the NQF, a lot of adaptations have been made as people gained more practical knowledge. The Chairperson of SAQA, Sam Isaacs, presented the following format which had been agreed to at the last SAQA meeting:

The Format of Unit Standards

To enable NSBs and SGBs to begin work, SAQA has decided that Unit Standards should consist of:

1. A unit standard title
2. a SAQA approval logo
3. a unit standard registration number
4. a unit standard level on the NQF
5. a credit attached to the unit standard *(using the rule of thumb of one credit for a notional ten hours of learning)*
7. the issue date *(approval will initially be for one probationary year, then for a limited period such as three years)*
8. the review date
9. the purpose of the unit standard
10. learning assumed to be in place before this unit standard is commenced
11. Specific outcomes
12. assessment criteria *(including embedded knowledge considered essential outcomes)*
13. accreditation process
14. range statements as a general guide to the scope, context and level being used for the unit standard or specific outcome or assessment criteria
15. a notes category which:

    a) must include critical cross-field outcomes supported by the unit standard

    b) should include references to embedded knowledge if not addressed in 12

c) may include other supplementary information pertinent to the unit standard

The purpose of a unit standard is to establish a relationship between standards. The terms generic competencies, essential outcomes and critical outcomes all basically translate to the term essential embedded knowledge.

- Concerning the **kinds/types of formats** which will be available, it is important to bear in mind that people will have to start writing standards and that these standards will not be permanent, but will be revisited and updated on at least a three-yearly basis. Currently three kinds of standard setting processes are crystallising:

    - Expert groups and plenaries such as the ETD Practices Project.
    - Groups writing standards and then synthesising the outcomes.
    - Politically mandated groups setting standards on behalf of
    - constituencies.

6.) Overview of Products for Subsequent Project Phases

Thusfar two options for standard setting for ETD Practitioners have been generated and illustrated by ways of a number of exemplars. Option A is based on transformation via standards using existing technology. The current unit standard format will be used as a starting point to build a model. Option B explores a somewhat different route and will take the question: "What counts as standards?" as a point of departure and develop an appropriate format or technology to express standards (see Jeanne Gamble & Adrienne Bird's article: "National Standards and Qualifications: A South African Perspective" in this issue). The project has no mandate nor does it wish to prescribe any particular model. In the field testing phase the best option for a particular sector is expected to crystallize.

Phase 3 of the project will in fact be field testing the options in various sites of practice and will produce a series of different products of actual standards set in various fields. This will be done by the project in collaboration with interested parties. The project is awaiting offers of where workshops to plan to set standards in collaboration could be happening. A couple of offers of venues and sites for field testing were already received by the project during the Plenary (a list of offers and contact persons is attached in the Annexure). However, it is not sure at present in which field standards will be set, but ABET was one probable option.

In Phase 4 of the Project it is envisaged that proposed national standards for ETD practices would be revised and submitted to the National Standards Body (NSB) for approval. These proposed national standards should:

- cover redefined roles and cores
- be accepted by the National Standards Body (NSB)

- meet the requirements of an ETD Model
- be available by January 1998
- be held nationally and recognised provincially

7.) FACILITATOR'S REPORT

Harry Hundsdoerfer, the Project Facilitator, reported as follows:

a) *Stakeholder Interaction*

* Assessment Workshops

The project participated in various foras and initiatives over the last few months. It was instrumental in getting a group of stakeholders together in May and June 1996 to pursue ways of conceptualising the role of assessment in transforming education, training and development.

* NSF/ABET

Furthermore, the Project is represented on the National Stakeholders Forum on ABET. It participated in the task team on drawing up interim guidelines for assessment in ABET between June and August 1996. A planning team was also set up in this forum to organise a planning workshop on standard setting for ABET practitioners to which the project contributed. Subsequently a workshop took place on 13 and 14 August 1996 with the aim to develop a national plan for setting standards for ABET practitioners.

b) Structure of the Project

With the re-institution of the National Training Board the governing structure of the project has been re-aligned to the structures foreseen under new regulations for NTB projects.

This has led to the Working Committee 10 becoming a Steering Committee and the role of the Chair being defined.

This new role entails that the chairperson becomes the sole spokesperson of the project. Previously the management and facilitation of the project was in the hands of the Project Facilitator. It was decided that the Facilitator now takes on the role of advisor and facilitator and the every day management of the project becomes a separate role.

A specification for the functions for the role of Project Co-ordinator will be drawn up to outline the relationship of this role in conjunction with the other agreed roles of Chairperson and Facilitator. In due course an incumbent for the Project Co-ordinator role will be selected.

c) Governance

There has been intensive interaction with various documents on the terms of reference for this project, which has now finally been accepted by the National Training Board (see the copy in this issue). Within the bilateral agreements between the South African and the German Government the project's contract will be finalised on the basis of the now accepted terms of reference document. A mid-term review is due to take place during November December 1996 to ensure that the project is on track.

d) Representation

The National Training Board has accepted a new category of representation on the Steering Committee. Until now unions were represented by COSATU and FEDSAL. However, it was felt that teacher representation should be separate on the Steering Committee. Thus it was proposed and accepted that one representative from SADTU and one from NAPTOSA would get a seat on the Steering Committee.

8.) Date of Next Meeting

Because of numerous workshops during November, it was agreed, **NOT** to have the next scheduled Plenary on 12 November. Plenary members will be informed via written invitations.

TERMS OF REFERENCE
EDUCATION, TRAINING AND DEVELOPMENT (ETD) PRACTICES PROJECT

BACKGROUND

The project arose out of the National Training Strategy Initiative (NTSI), where a draft conceptual model was produced to address **"the backlog in ETD practice competence and the concomitant low level of skills in the country".** (NTSI)

SCOPE

This project is designed to test and develop this model and produce proposed standards towards enabling all providers to develop greater capacity for affordable high quality ETD practices.

The range of ETD practices include those which are performed full or part-time, irrespective of institutional setting. This project complements other projects, such as COTEP, in ensuring that the full range of ETD practices will be served by standards in the ETD field of learning.

PURPOSE

The purpose of this project is to establish *a negotiated model in terms of mobility *, sets of unit standards and qualifications, accepted by the target groups, for developing and recognising quality ETD practices, particularly within the National Qualifications Framework (NQF)*

OBJECTIVES, TASKS AND PRODUCTS

The objectives of the project are the following

Phase 1: Research and Development Phase
(Target date: 30 April 1996)

a) To make available to the field consolidated data about capabilities (what practitioners do) for effective ETD practices. This entails holding data-gathering workshops with practitioners in the following groupings: ABET, Universities and Technikons, Government Sector, Career Specific Providers.

* In the context of this project, 'mobility' refers to the enablement of all practitioners, both career specialists and part job, to move between types and sites of Practice, and to develop their competence and qualification according to these changing needs through access to different types and levels of unit.

b) To make available to the field consolidated data about field conditions (the contexts in which ETD practices are located). This entails conducting qualitative studies in the following clusters: Universities and Technikons, Colleges, Schools, Training Boards and Regional Training Centres, Private and Public Sector, Trade Unions, NGO's, Community Development and National and Provincial Government.

Phase 2: Systems-Building Phase
(Target date: 31 December 1996)

c) To develop sets of draft unit standards, mobility guidelines and qualifications. This is what is commonly referred to as designing a standard setting process and developing exemplars. It will involve analysing the data from Phase 1 to establish an understanding of the issues (including participation, formats, etc.) around standards.

Phase 3: Field-testing Phase
(Target date: 31 October 1997)

d) To field test sets of draft unit standards at selected sites. This will involve facilitating and evaluating standard setting processes in identified sectors, using the process designed in Phase 2. Stakeholder workshops will be conducted.

Phase 4: Trial Implementation Phase
(Target date: 31 January 1998)

e) To submit proposed national standards for ETD practices to the National Standards Body (NSB) for approval. This entails further developing the proposed standards to meet the SAQA requirements.

Ongoing activities:

f) To provide broad information, participation and involvement of target groups in major activities in the project as an ongoing commitment.

The ETD Practices Project is one of the projects supported by the German government through the German Agency for Technical Co-operation (GTZ), to facilitate development of the National Training Strategy Initiative (NTSI).

Note : The Project Planning Matrix (PPM) is the document which sets out the terms of reference for the Project in detail. This document is thus amplified by the PPM. The wording in italics is quoted from the PPM.

NATIONAL STANDARDS AND QUALIFICATIONS: A SOUTH AFRICAN PERSPECTIVE

Adrienne Bird and Jeanne Gamble

1. INTRODUCTION

We are at the stage where we are all anxious to start implementing the NQF. We want to move from the level of principle and get into design mode to find answers to the kind of questions that Michael Young posed yesterday: How will outcomes be defined? What will assessment criteria look like? Who will moderate whom? How will fields be delineated?

We know that these will all be contested issues and that the way in which they are resolved will determine who stays on board the NQF train and who tries to derail it. At the moment we seem to have two of the essential features to which Michael Young alerted us in place:

- We are inspired by a vision of a new South African society in which prosperity for all and thus economic growth is a major driving force and a desire for social equity and a redress of past injustices is another. We want to rebuild or shall we say "build" the fabric of our whole society - morally and economically.

- All potential stakeholders in the restructuring of education and training are participating in the early stages of the process.

It is especially this second point which made us decide not to jump straight into design issues around the topic under discussion. What has struck us particularly about the debates so far, is how easily we all use the terms 'standards' and 'qualifications', whilst at the same time acknowledging that these concepts are shifting and are changing in meaning. We are also aware that there are perhaps relative newcomers to the debates in the audience and that they may not feel at ease with such loose usage. It allows, as Sam Isaacs pointed out to us yesterday, for too many permutations to enter the arena, which enable people to follow their own preferred routes and escape the rigour of negotiation, contestation and critique.

We have therefore decided to stand back from design issues for a moment and go back to basics. We want to explore the terms *'standards'* and *'qualifications'* afresh by asking questions that put pressure on these terms and hopefully re-frame them in ways that provide a rationale for the design proposals that conclude the paper.

2. EXPLORING STANDARDS

Let us start with 'standards'. Here we want to ask three questions:

- What are standards and how do we use them?
- How do standards come about?
- Why do we need national standards in South Africa now?

2.1 *What are standards and how do we use them?*

We want to argue that standards are **boundary markers** between that which a society regards as good, right, acceptable, appropriate or proper and that which it does not. In common sense language we use the notion of standards in all sorts of expressions, such as:"*Her work is of a high standard*"; "*His performance was not up to standard*"; "*We have to maintain standards, you know*". We talk about moral standards, employment standards, work standards, product or service standards, academic standards, professional standards and so on.

Standards provide bases for the judgments or assessments that we make daily in our lives. They allow us to examine things and to find them standard, above standard or below standard. On the one hand they provide a weight or measure to which we and others conform and in this they have a **regulatory and conserving** function. On the other hand they embody our expectations and that to which we aspire or seek to attain so that they also have an **aspirational or goal-orientated** function. In a sense we are never satisfied with 'standard' performance. We want our children to be "in the top half of the class", or our product to be "of a superior standard". So, embodied in the very notion of a standard is also the desire to surpass a standard. This adds both a **dynamic** and a **competitive** element to standard: dynamic in the sense that the point at which we can say that we have achieved a standard, is constantly spiralling upwards; and, competitive in the sense

that we compete with others and with ourselves (as the holders of standards) to achieve these ever-increasing levels of excellence.

The really intriguing thing about how we use standards is that we often talk about "above" or "below" a standard without clearly articulating what the standard is. Individuals, organisations and governments cannot function without the *idea or concept* of 'standard' at a general level, but they can and do function without a clear and precise expression of the standard in words and figures. For instance, when we sit in a restaurant we have a generalised notion of what "good service" means. It is not specified exactly as "it should take so many minutes to be served a cup of coffee'. It is rather a combination of a number of factors, such as friendliness, helpfulness, cleanliness, pleasantness of surroundings, and time taken to attend to us. We cannot and do not wish to specify each of these components to the exact degree, but we are quite capable of assessing or judging the standard of service.

The reason for this non-specificity lies both in the ever-changing nature of standards and in the process of standard setting, which leads us to the second question:

2.2 *How do standards come about?*

Standard setting at its heart is not the work of bureaucrats and policy planners, but of society. Like many other social processes standard setting does not occur at specific times or places. It happens *over time and across different places, between and within different cultural groups of people and for different purposes*.

People who think, talk, act, interact, interpret, believe and value in communally-owned ways, do not set and articulate standards in what would be deemed a scientifically-rational way. People within such groups are accepted into 'membership' and, as Peter O'Connor (1995) explains in relation to the conceptual notion of 'discourses':

> Through rewarding and sanctioning particular communicative practices as 'right' or 'wrong'; 'appropriate' or 'inappropriate'; 'normal' or 'deviant' , the group discourse incorporates a normative or ideal set of actions, theories, meanings and associations toward which its members more or less converge. Thus discourses 'apprentice' their members to ways of behaving and thinking as group

members, and establishes folk theories and associations common to the group and allows it to continue (1995:80). [1]

An understanding of standards as embedded in communicative practices, goes some way towards explaining why we often have a *sense* of standards without being able to articulate them clearly. We do not acquire them in words, therefore we can only sense them and not say them. The reverse is also true. If standards have been set by a group of which we are not a part, we do not acquire a sense of standard so unconsciously. We may see the words on paper or hear them spoken, but they are not intrinsically part of our own ways of thinking, feeling and doing.

One does not have to be a learning theorist to grasp how intricately intertwined the setting, acquisition and maintenance of standards are; hence the unease expressed by some with the power relations implicit in national standard setting processes.

Furthermore, in this country we all have an understanding of differential standards and their uses during the years of *apartheid* education - white education and white standards were a ticket to the good life, and black education and hence black standards led to labouring and poverty. Two systems - two sets of standards - two worlds.

If we consider the argument so far we see that:

1. Standards are simultaneously regulatory and conserving as well as aspirational or goal-orientated. They serve to protect that which is already there and they also spur us on to exceed existing boundaries.

2. On the whole, standards function as concepts and not as explicit statements. If we look at many of the examples of unit standards which we have studied in which elements and performance criteria are specified, we see that they get to standards by essentially describing activities or performances required within a particular area of work. They are not specific about the bases for judgments that need to be made by the performer. By using phrases such as: 'XYZ is done safely and correctly' or other terms like 'appropriately';

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[1] O'Connor, P. (1995) 'Workers' Cultures and Learning: A Spanner in the Works, in *Critical Forum*, vol 4, no 2, September.

sense of that which is implied by such terms.

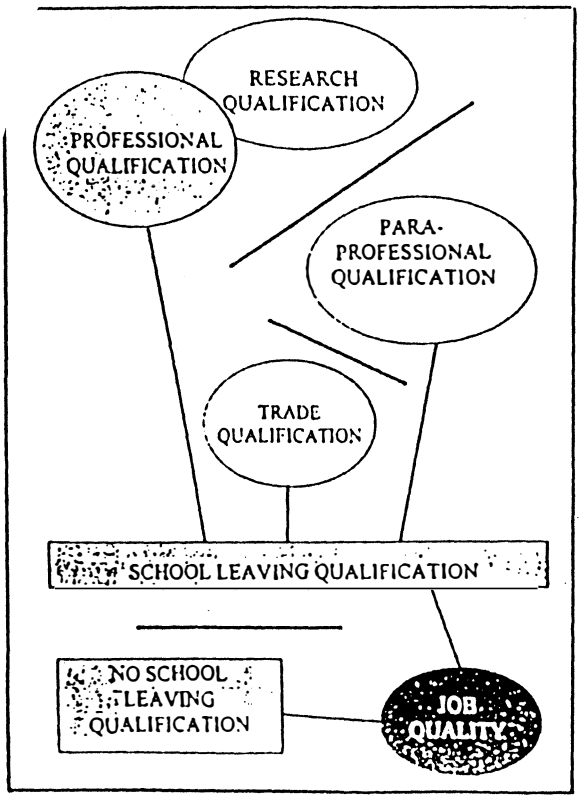
This confirms the point that standards function in an embedded rather than in an explicitly stated manner.

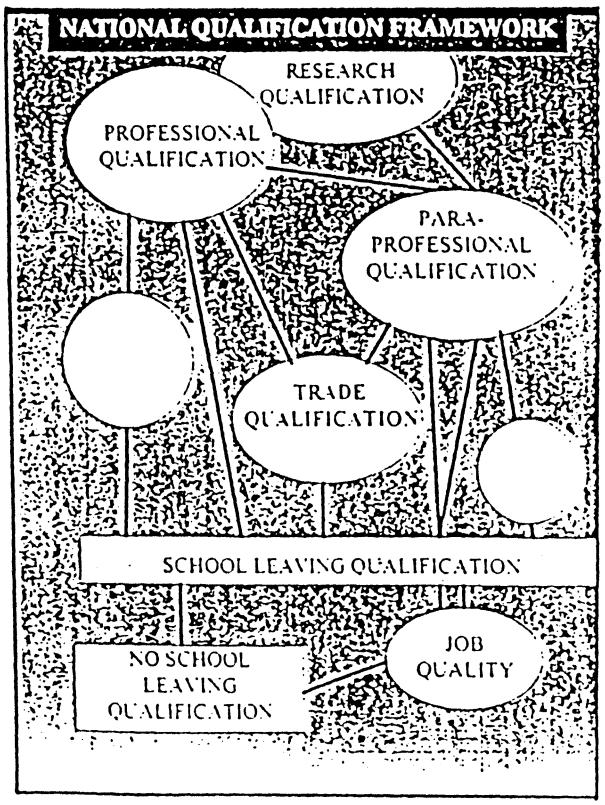
3. Standards are not free-floating: there acquisition and expression are circumscribed by boundaries. Institutions, professions, trades and groupings such as class or language groupings are the holders of the boundary markers.

4. Standards are embedded in communicative practices. They are communally owned in ways which are understood, either implicity or explicitly, by those who are inside the boundaries. At the same time those boundaries keep 'strangers' or 'gate crashers' out.

These points may sound rather abstract, so we tried to draw pictures that would bring them closer to home, so to speak.

The two diagrams refer to changes which may be brought about by the National Qualifications Framework.





In the first one, our traditional qualification system is built around these boundary markers. Qualifications are closed sets of standards where, for instance, professional qualifications might have a relationship to research or higher qualifications but in SA certainly, they have not had a relationship or a clear articulation with para-professional qualifications and neither have those two been related to trade.

The black lines indicate a lack of movement between these qualification worlds. These worlds were only open to people who had achieved a certain level of school-leaving qualification. Those without a school leaving qualification often had the sole choice of going into a job, assuming they could find it, where they did not carry a qualification themselves but were subjected to a job qualification or to an old job classification system where the job held the value, not the person.

In the second diagram we have taken the same concept, the notion of different sets of standards in each circle, and we've put the NQF as a framework around them. We argue that as soon as you put the NQF around different sets of standards, it compels us to explore the relationships between sets of standards and identify the gaps in explicit rather than in ad-hoc ways. Inevitably, this means that the boundaries shift and are marked out in new ways.

For us this is a very important point. The reasons why we have to become more explicit about relationships between different sets of standards become clearer when we ask the third question.

2.3 *Why do we need national standards in South Africa now?*

The SAQA Act states as the fifth objective of the National Qualifications Framework:

> "contribute to the full personal development of each learner and the social and economic development of the nation at large" (SAQA Act: 1995 (2)(e).

Let us consider why we need national standards in South Africa now, by exploring why individual, social and economic development have been juxtaposed in this way.

Individual development implies growth across spiritual, emotional, community,

work and self-chosen terrains. It also implies the ability to keep growing - hence learning. The general schooling system is supposed to lay this basis - and develop the capability to keep going - in life beyond the school. It's effectiveness is thus to be measured *after school is complete.*

Entry into the labour market, as we know, is highly influenced by the social base from which one enters. This base in turn influences the level at which one is likely to enter. The schooling system is supposed to mediate this influence and make it easier for those without power and riches to enter more equitably. Standards in the schooling system are intimately linked to questions of equity and access: not just to schooling itself but to the benefits that are supposed to accrue to those that *complete* schooling (or further learning) and enter the labour market - better jobs, better wages, better chances of improvement. The call for national standards in the context of general schooling is therefore about equalising the starting blocks after school!

Sadly, all too often none of these benefits follow - not because people do not possess the entry requirements, but because there are simply not enough jobs. Furthermore,trends throughout the world and in South Africa are showing that those with jobs inside the labour market are increasingly having to move between jobs and even between occupations to survive. If they stay in the same job or occupation, they need more than initial qualifications to progress or even to remain at the same level. Movement and shift is thus the order of the day. Individuals increasingly need access to information to be able to plot their own work and life pathways. Thcy need to know what will be expected of them in new fields of learning or in new occupational areas. They need to build their capability profiles as an investment in their futures and sometimes long before they actually move. Explicit statements about national standards both at the level of work and qualifications assist them in their quest for direction in and control over their own lives and their own learning.

Secondly, at a national level. In South Africa we have only recently started talking about anything at a national level in a way that refers to and includes all the people of this country. Our history of fragmentation and division has not exactly made it easy to conceptualise, let alone implement policies and practices that meet the criterion of being truly national.

The call for explicit national standards signals our determination to build a South African nation. Membership of many elites have been exclusive race or gender domains, with the codes or rules of access, mobility and progress deeply

embedded within the boundaries of socio-cultural settings. By starting to talk about standards in a public and open way, the boundary markers become visible and the boundaries start becoming more permeable. This does not mean that boundary markers must be eradicated or collapsed, but simply that they must become explicit or 'talked about' so that 'membership' can be more widely negotiated, instead of just being available to those who by their class, race, gender or language positions are historically qualified to join. It's no use talking about a national anything if entry and participation are still subtly based on the old divides and if the very basis for boundary markers are not open to discussion and change.

At an international level the need for national standards stems from economic, market and pricing considerations. South Africa is entering into world markets. We thus have to show that we can deliver products and services that are comparable or superior in quality to those produced by other countries and at prices which are competitive. Benchmarking against international standards has become the name of the game. In high quality, short-run production, knowledge and information mediated by human thinking and doing is increasingly becoming an integral part of the product or service. The SAQA Act recognises this when it states in Section 5 (1) (b) (iv) *that SAQA shall oversee the implementation of the NQF, including "steps to ensure that standards and registered qualifications are internationally comparable.*

The human contribution therefore becomes part of the quality specification, whether we agree with this shift or not. The question is how to specify human quality in a way that leaves space for innovation, creativity and originality and avoids the standardised proto-typing associated with mass production line processes.

There are no easy answers to such questions, but quality considerations of this kind lead us to an exploration of qualifications and their purposes.

3. EXPLORING QUALIFICATIONS

It struck us, as we were developing this paper, that the relationship between quality and qualification is an obvious one but one that is often missed. *Quality*, the Chambers Dictionary says is 'that which makes a thing what it is: nature: character: kind: property: attribute: social status etc.'. *Qualification* is described as 'that which qualifies: a quality that fits a person for a place: the attaching of quality'.

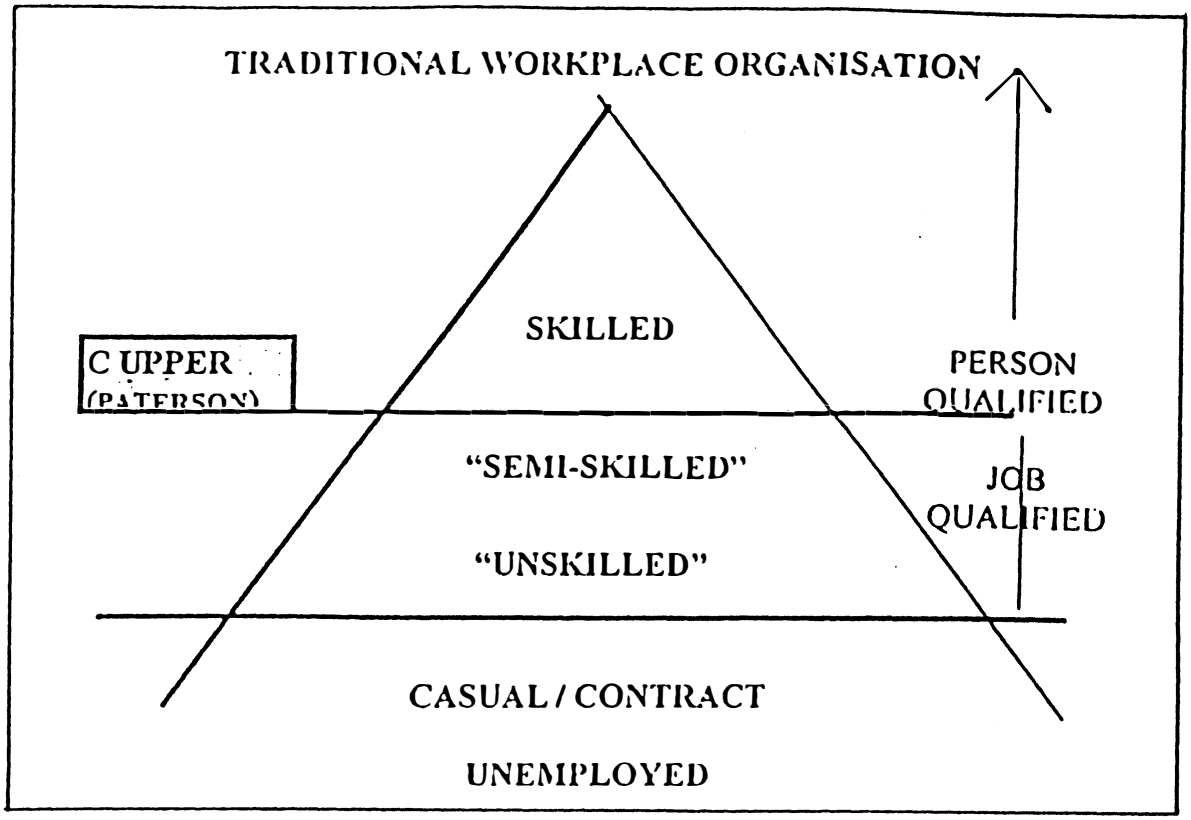
Qualifications are thus ultimately the gate-keepers of standards. They are the mechanisms which attach quality to a person and qualifies the person as a member of a particular group: be it membership of a trade or profession; a field of learning such as philosophy or physics; or, an occupational area such as nursing or managing. We tend to think about qualifications only in formal terms, but there are obviously many more ways of becoming 'qualified' than just by obtaining a piece of paper.

The other side of this coin is that occupations or jobs that require formal qualifications are deemed to be high in value, while jobs which anyone can enter without qualifications are deemed to be low in value.

In the labour market it is increasingly formal qualifications which guard the entrance gates to occupations and jobs - sometimes because they are deemed to add significant value and sometimes simply to exclude the huge numbers of people who seek entry.

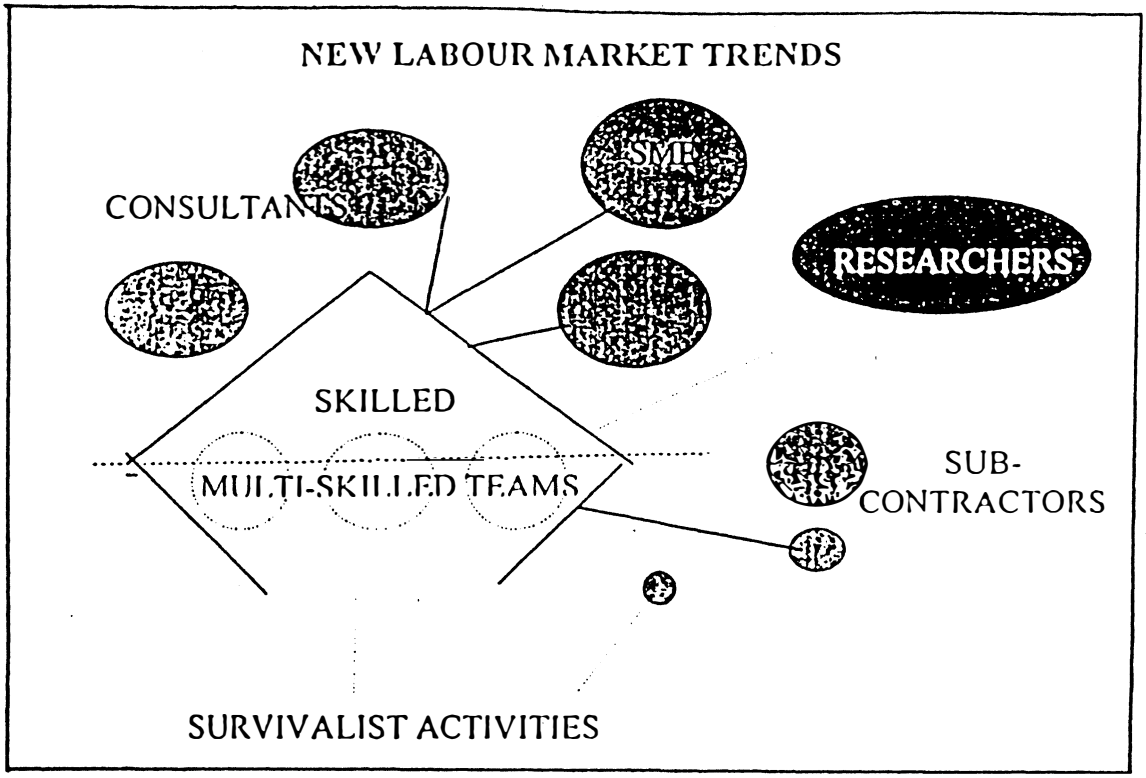
Formal qualifications also come into play when people seek to progress to higher occupational levels. They very often pose 'glass ceilings' that suddenly bar the way to promotion. Then we are told: 'You have performed exceptionally well, but you need a degree at the next level.

Michael Young pointed out yesterday that, in global terms, qualifications are shifting from providing separate gateways to occupations to being conceptualised as a framework, with everyone who is active in the labour market inside the framework. For us that is an important way of conceptualising qualifications. Being a non-holder of a qualification within a qualifications framework represents an invidious position - not because of a decrease in social status, but crucially because one then has to operate without a recognised source of quality specification increasingly required by clients and markets. This applies to those employed by others and to those who are self-employed. One of the strong arguments against an NQF is that, if you're self-employed, why on earth do you need qualifications? We argue that when qualifications become quality specifications in a competitive market everyone needs them. Furthermore, in global terms, current and future shifts in division of labour represent marked breaks from the past. It's easier to show, in diagrammatic form, how boundaries are shifting.



This is probably the traditional way in which many of us have thought about work for some time. There is a hierarchical arrangement in workplaces where there is a real boundary, usually known as c-upper (Paterson job grading system). Above that, you have a national qualification: a trade, professional or para-professional qualification which attaches quality to the person. Below c-upper we have categories which have sweetly been called semi-skilled or unskilled, where the quality is no longer attached to the person but is attached to the job. Below a certain level there are those who are excluded from permanent and secure employment but who perform casual, contract or seasonal work and they tend to have neither of these characteristics. They are often the weakest and most vulnerable in the labour market.

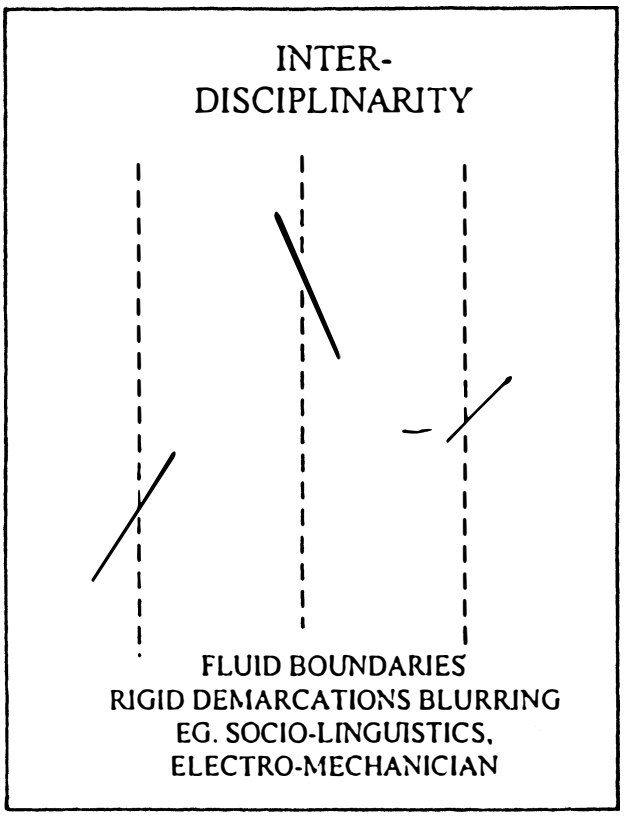
That was our traditional approach to describing work. However, there have in recent times been such fundamental shifts that such a frame probably does not help us to understand what is happening in the labour market any longer. This is our first attempt to try and to draw a picture of some of the shifts that are happening.



In most workplaces there is still a boundary but it has become a lot softer. People below the c-upper barrier are acquiring some of the skills through job fragmentation and becoming part of multi-skilled work teams. The number of labouring jobs have radically reduced. This is as true in South Africa as in the rest of the world. It has made a lot of people redundant and they have joined the unemployed. Many of those people are involved in survivalist activities. We refer here to, for instance, barbershop activities and all the other examples that we know so well. Some are raising their activities to the level of a micro enterprise where they actually have a formal area of activity and are seeking to raise the quality of their lives through it. Some are rising further and are becoming sub-contractors in this formal system. At the higher and skilled levels where people carry national qualifications (or quality specifications), we're seeing the move towards becoming consultants. If the market is doing alright, these people are usually able to secure a very good standard of living for themselves.

We are thus seeing new relationships emerge between core functions and consultants or supplier firms. Instead of the relationship being a cost cutting and adversarial one, it is much more supportive. There are also new relationships of innovation and development taking place between researchers and workplaces and, as we have heard repeatedly, workplaces are now regarded as sites of learning in addition to being sites of production or service. In this new context the old qualification system fails many people and there is strong pressure for change in our system.

At the same time as boundaries are shifting in terms of jobs and qualifications, boundaries between subject disciplines as well as between job demarcations are blurring and are becoming more fluid, as we attempt to show in the diagram below.



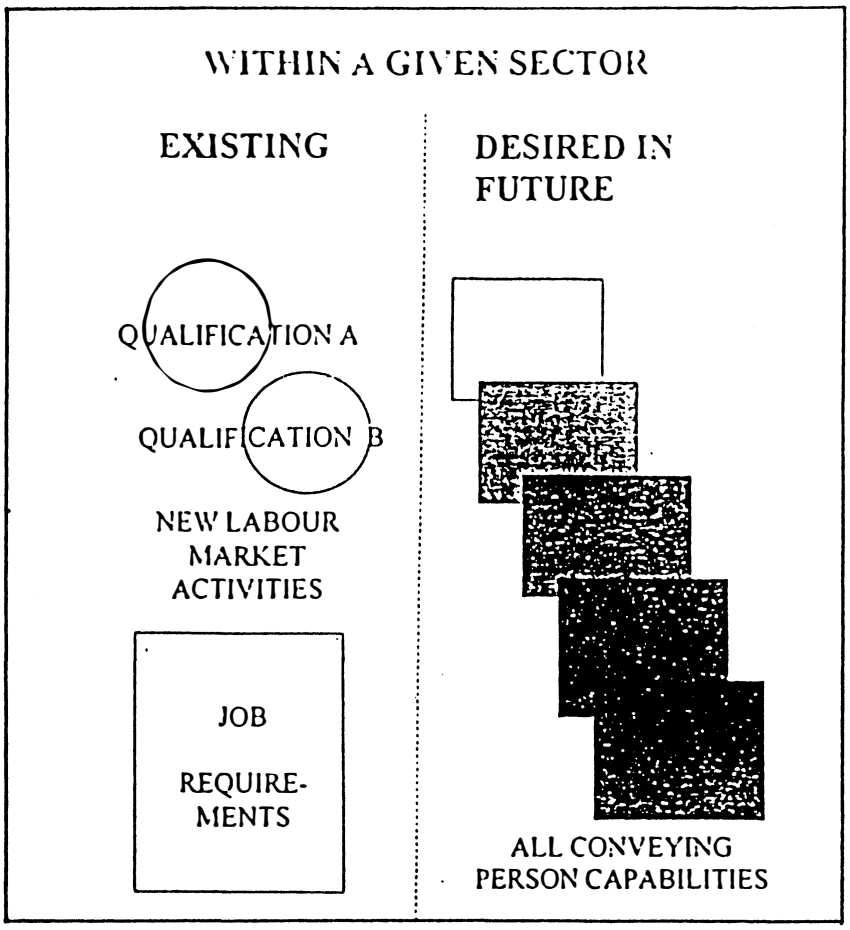
Coherent pathways for progress are thus not only becoming more essential, ir order to provide guidance to learners but they are also becoming more difficult to map. It becomes essential to extend qualifications from being something which is required at the preparatory stage to something which can be achieved and upgraded in a life-long cycle. It's on the basis of these shifts in our understanding of both standards and qualifications that we present our design proposals.

4. DESIGN PROPOSALS

We realized when we listened to Michael Young yesterday that we have opted very firmly for the third of the three options to integration that he presented. He presented the first option as assigning parity to different qualification pathways; let's call X equal to Y. We used to have that with the old trade plus two languages equal a matric. That was the kind of formal experience. That was the one we did not adopt.

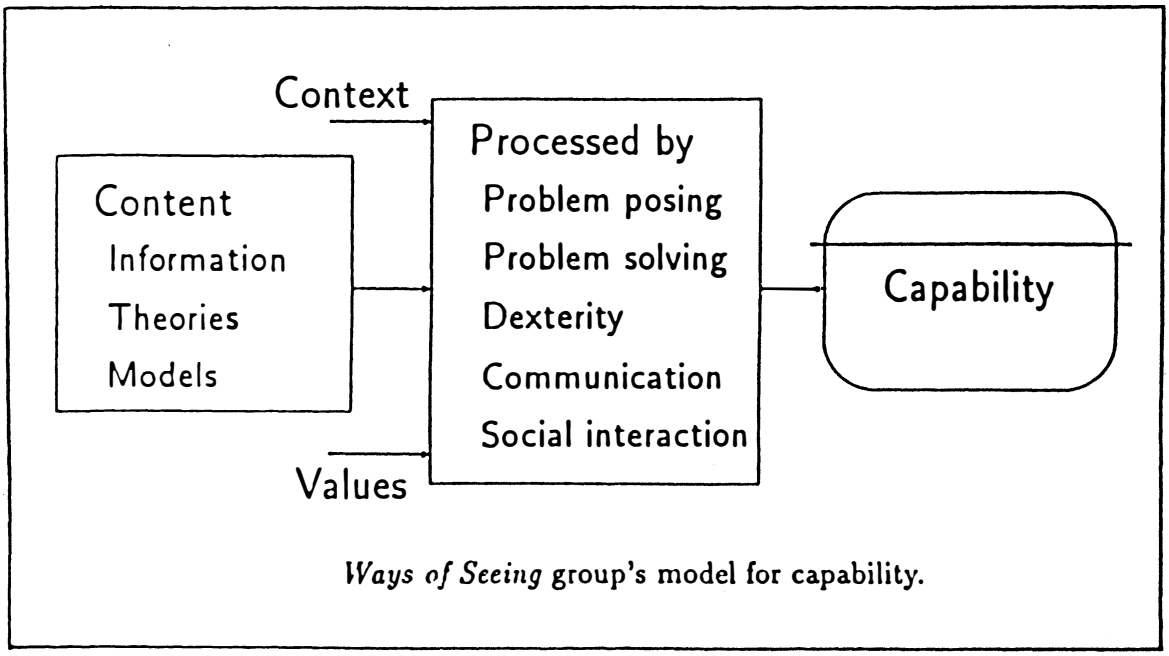
The second option was a kind of loose modularization, with a high potential for fragmentation that may lead to a proliferation of certificates but possibly a loss of standards. Well, it remains an option, but not one that we considered.

The third option was the one closest to our own thinking. This option proposes a line of study, with 'core' and 'specialisation' components. We see this option as being linked to pathways of learning within which new connections can be explored. The diagram below illustrates this way of thinking.



On the left we see the old system or, in many cases, the existing one that has produced the social and other differentiation that we're seeking to overcome. You have some professional, para-professional or trade qualifications. You have a whole new cluster of labour market activities, such as small, medium and micro enterprise (SMME) activity, which is mostly completely outside existing qualifications systems. Down below you have those that are bound in by job descriptions where the qualities are not attached to themselves but to the job. What we hope to achieve in the future (shown on the right hand side), is that a coherent set of qualifications can be set up within a pathway, where one meaningfully links to the next in ways that are known by all the players.

The question is how do we get there? How do we frame this new challenge. Well, we started by picking up on a point that Hugh Hanrahan spoke about yesterday and explored in "Ways of Seeing the NQF", namely the notion of capability. Capability is an absolutely integral combination of content together with what is variously being called essential outcomes, abilities, generic competencies and the like, that operates within a context in which particular values are embedded.



Ways of Seeing group's model for capability.

That's a fairly formal description and so we tried to think what that could actually look like in practice. How can we use this notion to help us get a sense of incrementalism which achieves our purposes of social integration, making a nation, allowing people in while at the same time enabling life-long learning, higher standards and the other issues mentioned above?

So as not to be accused of using only training examples, we went out looking for good practice in the education world. Professor Bonner from the Wits History department, provided us with some ideas which we've developed here. He said that with the challenges that they have been facing in the History department, they had to think about new ways of teaching that would not lead to a dilution of standards. So he developed the notion that there is progression within a degree. His particular specialization is African history, and he therefore explored his ideas in that particular context. He argued that a first year historian is someone who should be able to deal with simple and complex causation, in other words what causes what, or what leads — but in a limited situation where the source or who

is telling the story, is specified and where the lecturer — in this case Bonner himself - asks the question. At second year level the person becomes more independent and at the qualifying level the person is able to do these things independently, able to find their own sources, able to generate their own questions.

HISTORIAN

(SUB-FIELD OF LEARNING
IN FIELD OF HUMAN AND SOCIAL STUDIES)

Drawing from work done by Prof. Philip Bonner

	KNOWLEDGE OR INFORMATION	ABILITY OR ESSENTIAL OUTCOME	ASSESSMENT
DEGREE	Period/Place...	Independent (Able to find own sources, critically assess the arguments of others and present own using independently located evidence.)	Capability to perform as independent historian
YEAR 2	Period/Place ...	Increased independence	Capability to perform relatively independently
YEAR 1	Period/ Place ...	Simple and complex causation in context of given source and given question	Capability to perform in guided context

We saw this as an illustration of how the ability gets embedded in the content. Once Phil Bonner had identified the capability that he was aiming to develop in first-year History students, this influenced his curriculum work. (See diagram below.)

HISTORY 1: WITS UNIVERSITY
PREPARED BY PROF. PHILLIP BONNER

CURRICULUM aiming to develop understanding of CAUSATION - a necessary capability for YEAR 1.

Explain why the Mau Mau rebellion broke out in Kenya in 1952.

1. This again is a study of causation. There were multiple causes of the Mau Mau rebellion. Your task is to identify them and assess the importance of each of these causes compared to the others.

2. There are areas of agreement between the authors and areas of disagreement. Identify these and try to understand why they have these different emphases.

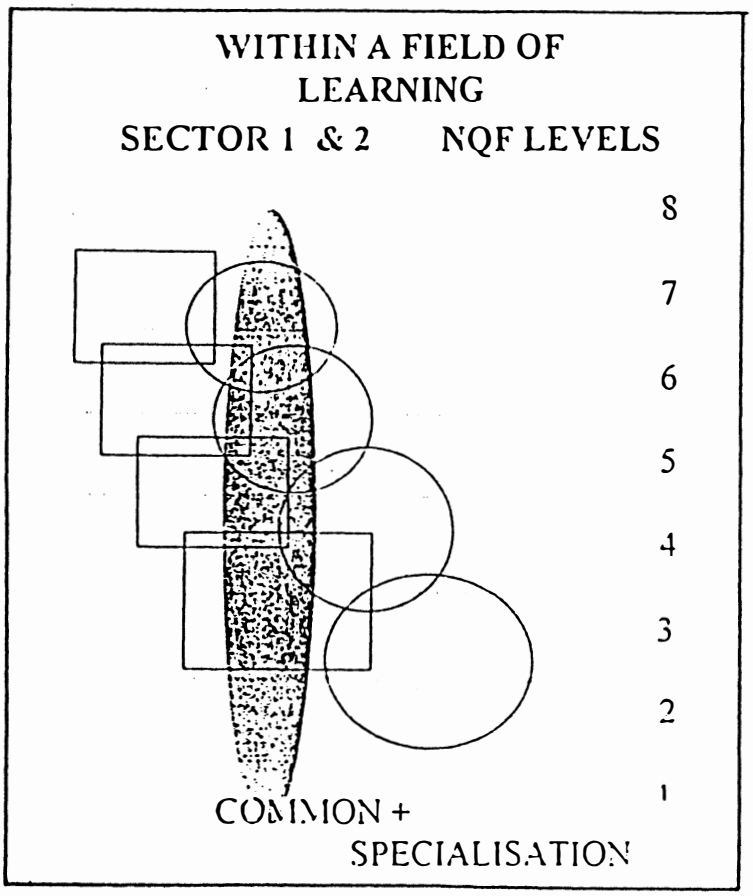
3. There are more immediate or proximate causes (e.g. in the period 1945 - 1952), and more remote causes. In some cases the first category of causes were partly the result of the second category of causes. Where you see connections between these two categories of causes indicate them in your essay.

4. Distinguish between necessary and sufficient causes. Eg. deep grievances among the Kikuyu were a necessary pre-condition for the revolt to occur. But the revolt could also not have occurred without leadership and organisation. Where did this come from?

The question was: "*Explain why the Mau Mau rebellion broke out in Kenya in 1952*". Now normally we would have left it there. That would have been the end of the story. "Go away, write your essay." And half the people, more than half would fail. Because they would not understand the code. So what Phil did was to put in triggers to help people to develop the embedded capability. He told them that the answer requires a study of causation and clarified the task by identifying various issues and questions which they would have to address.
It is quite clear that graduates from this programme might well forget the Mau Mau and they might forget what year there was a rebellion, but if they develop an understanding of causation, it is a capability in the human being that carries to

other contexts and other times. In this way we can get the very best of what the NQF promises.

But, it's certainly not just in the educational or more traditionally educational areas where progression pathways, in which capability and context or subject come together, are being explored. Such innovation is also emerging from the work that Chris Vorwerk and others have been doing in the plastics industry and the work that he and Leslie Nhlapo and others have been doing in a bigger project in engineering and manufacturing. They have found that across very different contexts people are having to identify and rectify process problems and so on; thus laying the basis for saying we can capture these capabilities more broadly. There could be agreement that could start linking to levels which we've now got used to calling as NQF levels.



To identify those commonalities seems to be the task, over and above saying we no longer want to look at the job, but at the person and perhaps even raising this notion to a kind of methodological point. What we would say is that sectoral capabilities embedded within history, within plastics, within mining, within education, training and development (ETD), within Educare, ultimately need to find their connections in other related areas or sectors.

Here is where the argument for defining fields of learning emerges. We'll hear more about this later in the conference, but essentially it is a common sense way of asking who are we similar to, who are we close to and why? Having sat close, can we find sub-fields or domains where the capabilities are the same, irrespective of the fact that the one is in plastics, and the other is in metal or in ice cream? Furthermore, can we identify different levels of these capabilities? The cross-sectoral data being gathered by the Education, Training and Development (ETD) Practitioners' Project, will go some way towards clarifying the feasibility of such an approach.

DEFINE A FIELD OF LEARNING BY AGREEMENT ACROSS RELATED SECTORS OF LEARNING - THROUGH AGREED LEVELS OF PROGRESSION BASED ON CAPABILITIES / ESSENTIAL OUTCOMES

DOMAIN	DOMAIN	DOMAIN	DOMAIN	DOMAIN
				5
	4			4
3	3			3
2	2	2		2
1	1	1	1	1

DEGREE = (Competency - Level z)
DIPLOMA = (Competency - Level y)
CERTIFICATE = (Competency - Level x)

5. CONCLUSION

We want to end with a point raised at the beginning. We're in the process of creating a new South Africa. This is not a technical exercise. What do we want the world to look like? How do we want work and respect to be dispersed through organisations in society? We need to answer these questions before we can come

to better definitions of outcomes. Having established outcomes, let us see how this could enhance the actual quality of learning and teaching.

We hope that what we have done, has not been to suddenly offer a new set of prescriptions that throws everyone into disarray. That was not the intention. We wanted to offer a challenge to all of us to think in new ways. We should not reject options or ideas before we've been willing to explore them. The national cross-sectoral and cross-institutional terrain is new for many of us. We are not going to get everything right the first time round, but let it never be said that we did not do our very best.

Thank you.

Modularization and the Outcomes Approach: Towards a Strategy for a Curriculum of the Future

An essay by Michael Young, in

"Outcomes, Learning and the Curriculum: Implications for NVQs, GNVQs and Other Qualifications"

Edited by John Burke

Introduction

In this chapter I want to link consideration of the outcomes approach to defining curriculum content to an assessment of the potential of modularization as the basis for the structure of the post-compulsory curriculum. The criteria that I bring to the analysis arise from the argument first developed by Finegold and Soskice (1988) that the education and training system in this country is related to the economy through what they described as a *low skill equilibrium*? It is the educational implications of their analysis that are of concern to me in this chapter and these were taken further by Finegold *et al* (1990) in developing the concept of an early selection-low participation system[1]. Both these analyses start from the assumption that it is only high skill economies that will stand a chance of being competitive, and therefore of being the basis for stable democracies, in the next decades. The question that I seek to address therefore is the extent to which modularization when linked to an outcomes approach can be the basis of a strategy for moving to a high participation/high achievement system. Such a strategy would have two goals. Firstly, it would need to point to ways of overcoming the divisions, the fragmentation, the rigidities and the low expectations of the current system. Secondly, it would need to provide a framework for developing new combinations of knowledge and skill, and the incentives for learners to reach high attainment levels as well as for teachers to develop the new pedagogies that would characterize a high achievement system.

Educational innovations are developed in specific contexts which shape their implementation (Raffe, 1984; Young, 1993); modularization and the outcomes approach are no exception. In this country, modularization developed as a result of localized teacher initiatives in the early 1980s (Wilmott, 1983). In contrast, the outcomes approach arose from Department of Employment policy arising from the launching of YTS (Jessup, 1991). In examining these different *contexts* and how they shaped the *content* of the two developments, I shall argue that it is useful to separate their *intrinsic logics* as educational reforms (what they were intended to do) from the *institutional logics* involved in their implementation (Raffe, 1992). In terms of *institutional logic* modularization, in that it developed as a local initiative with little national support, can be seen as an example of the fragmentation and

voluntarism that have been features of education and training in this country. The outcomes approach, with its initial association with low level qualifications for YTS trainees, was the victim of another feature of the UK system, the low status of vocational education and work-based training in particular. Both therefore can be seen as part of a *low skill equilibrium* rather than as ways of moving out of it. Locating these developments within their *institutional logics* does not contradict their *intrinsic logics* of increased flexibility, access and the empowerment of learners through which they could (at least in theory) be part of a high skill-high achievement system. The distinction between *intrinsic* and *institutional logics* is useful in explaining why the aims of modularization and outcomes approaches have not been realised in practice. It does not, however, suggest how the constraints of institutional logic may be overcome. This question will be returned to in the last section of the chapter.

The chapter has four parts. The first three are concerned with how implementing both modularization and outcomes approaches have been shaped both by their own limitations and by the wider social and political context. Part 2 analyzes how a divided system of qualifications and a low achievement/low status vocational training system influenced the way in which modularization and the outcomes approach were initially developed. In this analysis I go beyond the broad categories of modularization and outcomes and suggest that it may be useful to see them as generic strategies that, depending on the context, can take a number of forms. Part 3 begins by identifying learner-centredness as a key feature of both modularization and outcomes approaches. It then goes on to examine the problems associated with learner-centredness in a political era dominated by what might be called an anti-provider culture. Part 4 takes the issues of access and participation that have been associated with both modularization and the outcomes approach and considers how they have been undermined by the dominance of a highly selective subject-based curriculum. In the final part of the chapter, I draw out from the previous analysis the principle of connectivity as the key distinguishing feature of a *Curriculum of the Future* (Young and Spours, 1992) which would involve both modularization and an outcomes approach. I point out that though implementing a *Curriculum of the Future* would need to be part of a much wider political, industrial and economic strategy, elements of connectivity can be found in the links between a number of current local and national developments.

Modularization and the Outcomes Approach in the UK Since the Beginning of the 1980s

The different origins and aims of the two developments, which in many ways are closely related, is itself a reflection on the fragmented nature of education and training in this country. As stated earlier, modularization started as a series of *local* initiatives (though sometimes supported by national funding) of groups of teachers, usually to improve access to the pre-16 academic curriculum. The outcomes approach, on the other hand, had its origins in the *national* training policies (Jessup, 1991), launched by the Department of Employment (and later NCVQ) in the early 1980s. The adoption of an outcomes approach to assessment for YTS, and later for NVQs, was an example of the Government's determination to move away from a 'provider-led' (or teacher-dominated) curriculum for vocational education

to one which was 'learner-led' and in which consumer interests were given priority. This focus on consumers meant that a policy designed to raise standards all too easily became part of the 'low skill equilibrium', as employers wanted to keep training costs down and young people wanted work not training. From the point of view of teachers, the close connections of the outcomes approach with NCVQ, together with the narrowness of the competences of the early NVQ 1s and 2s, meant that an outcomes approach could be seen as anti-educational, or at best representing a very limited view of vocational education.

The separate origins of modularization and the outcomes approach are not only an expression of the academic/vocational divide but also of the tensions between local attempts to increase curricular flexibility and Government attempts at rationalization and greater regulation at the national level. Two recent developments, though limited by the Government's obsession with external assessment and their distrust of teachers, are at least indications of the way the two strategies might be brought closer together. I am referring to the National Curriculum which is subject-based and non-modular but defined in terms of learning outcomes, and to GNVQs which are unitized and defined in terms of learning outcomes, but not competence-based. These developments, despite criticisms that can be made of them, point to the possibility that an outcomes approach could incorporate the education and training system as a whole. In the remainder of this section, I shall consider modularization and outcomes approaches separately as generic curricular strategies which, in the UK context, have taken particular forms.

Modularization

As a generic strategy, I shall define *modularization* as the breaking up of the curriculum into discrete and relatively short learning experiences. These may or may not have separate learning objectives and assessment requirements. I shall trace the development of modularization in this country and then discuss the relationship between modularization and a curriculum strategy designed to reach the achievement levels of other European countries. In order to do this I will distinguish three forms that modularization can take, *internal*, *external*, and *connective*, all of which can be illustrated in recent developments.

If we exclude higher education, modular curricula first developed in the UK in the secondary schools in the 1980s and primarily around the new GCSEs emerging with the support of TVEI (Wilmott, 1993). These developments had two aims; firstly, they were designed to provide the curricula and accreditation for the new kinds of learning that was being encouraged by TVEI but was not deliverable within the conventional subject divisions, and secondly they enabled assessment to be more directly related to the learning experiences of students. This link between modularity and the accreditation of new kinds of learning was also a feature of the pre-vocational courses that were developed at the time by BTEC and City and Guilds. Spours (1989) suggests that these initiatives can be described as *modular developments* rather than *modularization* as they were only modular *within* particular qualifications. For the purposes of this chapter, I shall refer to modular developments within qualifications as *internal modularization*. Using different terminology, Raffe (1992) describes any use of modules that does not change the relationship *between* qualifications as an *integrative strategy* in which modules are regarded as

> a convenient unit within which to develop alternative pedagogic approaches. For example, a module might be based on a specific activity or project designed to develop specific skills or capabilities.

The way modular GCSEs of the 1980s took on certain features of mode 3 (teacher-assessed) 'O' levels of the 1970s is illustrative of how *internal modularization* of qualifications is likely to be shaped by a divided qualifications *system*. In becoming associated with providing access to those excluded by more conventional routes, modularization came to be seen as only appropriate for lower level courses, and therefore to be associated more generally with low standards. It was this equation of *context* (low status students and low level courses) with *content* (modularization itself) in a political climate in which maintaining standards was seen as liked to externally marked examinations that led, in the 1990s, to the demise of pre-16 modularization.

As TVEI began, in the late 1980s, to have an impact on the curriculum after 16, schools and colleges became increasingly aware of the problems of progression and the confused 'jungle' of duplicating and non-comparable qualifications. Not surprisingly, *internal modularization* provided no solution to this problem and schools and colleges began to develop what Raffe (1992) describes as an *aggregative* modularization strategy. I shall refer the design of modules to be part of more than one qualification and to the possibility of students combining the modules from different qualifications as *external modularization*. The best examples were the so-called Y-models in which BTEC Nationals were developed with 'A' levels in association with the Associated Examination Board (AEB) and the University of Cambridge Local Examinations Board (UCLES). In each case, credit transfer was possible as the modules completed by a student could be credited towards either qualification. There is little research on the success of these developments, though evidence from the case of GLOSCAT (Gloucestershire College of Arts and Technology), which indicated that in practice there was very little transfer between qualifications, would again point to the power of the divided qualifications system.

There are important differences between the schemes associated with the two examination boards which have implications for any future curriculum strategies. Whereas UCLES modular 'A' levels were devised by an examination board and offered to all schools and colleges, the AEB/Wessex scheme was a three way collaboration (between schools/colleges, a group of LEAs and the Examination Board). The Wessex Scheme was not just involved in modularizing the curriculum; it expressed a whole approach to the curriculum which influenced the role of guidance, the preparation of materials and the availability of learner support that students would need if they were to benefit from the opportunities of choice within modular systems. In linking module design both to guidance and supported self-study and to an overall view of the purpose of the curriculum expressed in the appointment of a coordinator, the Wessex Scheme demonstrates many of the features of what I will refer to as *connective modularization*. The idea of connectivity will also be applied to outcomes approaches in the next section. Its relevance to the curriculum as a whole will be developed further in the last section of the chapter.

Initiatives such as the Wessex scheme created a great deal of interest among teachers and provided curriculum models for two of the most influential reports on post compulsory education and training — the IPPR *A British Baccalaureate*,

referred to earlier, and the Royal Society's *Beyond GCSE* (1991). However, attempts to work with examination boards across the academic/vocational divide came up against almost insuperable difficulties of their totally different approaches to assessment. This difficulty could well be exaggerated by the recent encouragement given by the Government to examination boards to become more competitive, and therefore to emphasize the distinctiveness of their awards. A further constraint on the development of *external* let alone *connective modularization* has been the Government's insistence on terminal, externally set and marked examinations for 'A' levels. In their recent pronouncement on modular 'A' levels, SEAC/SCAA (1993) state that external assessment will be necessary at the end of the course and at the end of each module. This is not only likely to make modular 'A' levels prohibitively expensive, but by linking them to a highly selective assessment system, most of their pedagogic advantages will be lost. Again we have an example of *institutional logic* (maintaining standards by selection) shaping *intrinsic logic* (encouraging choice and flexibility).

The Outcomes Approach

The outcomes approach can also be seen as a generic strategy which, like modularization can take a number of forms. I shall define an *outcomes approach* as one which asserts that the curriculum can (and should) be expressed in terms of measurable learning outcomes. It contrasts sharply with traditional curricula which are frequently expressed in terms of inputs (for example class contact hours). An outcomes approach can, in principle, refer to any kind of educational outcome, not just the units of competence with which it has been associated through NVQs.

Following the analysis of three possible types of modularization, I will distinguish three kinds of outcome approaches — unitized, integrated and connective.

- *Unitized Outcome Approaches*: These refer to approaches such as that adopted in NVQs, and the original Scottish National Certificate modules. Both maximize choice and flexibility, but provide no mechanisms for encouraging coherence or progression on the part of learners.
- *Integrated Outcome Approaches*: These refer to approaches such as those exemplified in GNVQs and in the National Curriculum subjects (and later developments within the Scottish National Certificate), when outcomes are grouped together to form the basis for a qualification. An integrated outcomes approach could also be the basis for modular 'A' levels.
- *Connective Outcome Approaches*: These refer to when outcomes are grouped together not only in relation to specific qualifications but in relation to how learners are able to incorporate their purposes into the curriculum as a whole.

As in the case of modularization, the form that an outcomes approach takes (and therefore its specific content and consequence) depends on the context. For example, *integrated* or even *connective* outcomes of adult training are much more likely when employers have a strategic approach to training and investment and trade unions view training as key elements in their negotiations. In the examples already discussed of NVQs and the National Curriculum, the way context has shaped the

form that outcomes have taken is clear. The official aims of the National Curriculum are to achieve higher standards in the core and foundation subjects. However, a policy of over-specification of outcomes and little consultation with teachers (and parents) was designed to monitor school achievements rather than to provide incentives for teachers to take more responsibility for raising the achievements of their schools. In the case of NVQs, the separation of outcomes from processes encourages colleges to concentrate on assessment and leaves it up to them whether to invest time in devising new learning strategies.

Any form of outcomes approach to the curriculum is radical when contrasted with typical input approaches and to the extent that it challenges conventional assumptions that link teaching and learning. This challenge can be seen from the point of view of the student, the teacher and the institution. From the point of view of the student, outcomes provide criteria for allowing them to demonstrate that they are qualified without necessarily attending a course of study. Furthermore, if the student does decide to join a course he/she has criteria by which to judge the teaching. From the point of view of teachers, an outcomes approach requires them to examine their practices in relation to what they expect students to achieve. It also provides them with criteria with which to question the administrative arrangements within which they work. From the institution's point of view, an outcomes approach specifically does not prescribe either time or method of study. Whether this becomes an incentive for institutions to take greater responsibility for achieving outcomes depends on both its overall curriculum strategy and the incentives for developing such a strategy from the system of funding.

In its separation of outcomes from processes, and the opportunity that it provides for the recognition of prior learning, an outcomes approach is likely to appear more relevant to adults than young people. Nevertheless, the two broad principles that follow from an outcomes approach, that the curriculum should be expressed in terms of what a school or college expects a student to achieve, and that it defines the responsibilities of the school or college, remains important for any age of learner in a high achievement system. The limitations of an outcomes approach are that it is only about outcomes and therefore can never be a complete curriculum strategy. Institutions also have to make decisions about input priorities, whether they are in terms of credits or notional learning time.

In this section, I have argued that the form that modularization has taken and the kind of approaches to outcomes that have been developed reflect the *context* of their implementation rather than their *content* as innovations. There appears to be nothing *intrinsic* to either modularization or outcomes approaches that links them to low level programmes or a low skill equilibrium. However there are two features of the context in which they have been developed that make it likely that this is how they will be experienced in practice — a neglect of the learning process and a tendency to devalue the professional expertise of teachers. In the next sections, therefore, I deal first with a key aspect of the content of both innovations — their learner-centredness and how the wider context has exposed its limitations in the form it has been developed.

Some Problems with the Idea of Learner-centredness

Both modularization and outcomes approaches can claim to be learner-centred approaches to the curriculum, though from rather different points of view. Whereas

an outcomes approach starts by asking what a learner can expect to achieve (or how it is possible to recognize learning that has already been achieved), modularization focuses on the learner as a decision-maker and chooser.

The idea of the active learner who takes responsibility for her/his own learning is an attractive one and is a recognition of something which content-dominated models of education have all too easily forgotten. However, in practice, there are a number of fundamental problems with the concept of learner-centredness which are magnified when it arises in a wider political context in which government distrusts teachers as a professional group.

A more learner-centred curriculum implies that students should be given more opportunities to make their own learning decisions. However the capacity to make learning decisions cannot be separated from the level of learning reached; it is itself something which it cannot be assumed will be learnt (something at least recognized in the popularity of the idea of *learning to learn*). Raising levels of overall achievement involves increasing the capacities of those groups of students and trainees who have in the past shown they lack either the motivation or the capacity to learn. It follows that a learner-centred approach cannot be just about access and choice; it must be about new pedagogies, new relationships between teachers and learners and the development of new learning strategies. In other words, a learner-centred approach, even if it begins by separating outcomes from processes, has to be complemented by a focus on support for learners by teachers. This may, of course, involve a number of activities such as guidance and diagnostic assessment which have not in the past been the work of teachers (Shackleton, 1988).

Moving to a high-participation/high achievement system will undoubtedly mean that teachers will have to give up many of their current practices. However, it will mean placing more, not less responsibility on them (cf Burke p. 75 in this volume). Counterposing teacher-centredness with learner-centredness, particularly within the context of an outcomes approach which gives so much attention to assessment, can all too easily distract attention from the development of a learner-centred pedagogy. There are interesting parallels with the new management theory. Zuboff (1989) and others have found that not only is the traditional knowledge basis of a command approach to management disappearing, but that such an approach is no longer effective as company organization becomes less hierarchical. Management, in other words, becomes more like teaching, or at least, the encouragement of learning.

This critique of learner-centredness has focused on the limitations of approaches emphasizing the active role of learners that, in doing so, neglect the new roles for teachers (and trainers) that would be involved. In suggesting that students or trainees will learn by themselves if certain barriers, such as college-attendance at particular times, are removed, the proponents of learner-centredness may be searching for a new version of the old apprenticeship model of learning by doing. The only difference would be between the old restrictions of time serving and the new restrictions of over-specified national standards. Such a notion may be attractive, if the objective is to reduce the role (and the cost) of teachers in the process of improving the qualifications of the workforce. However, the question remains as to what value would be attached to qualifications that depended less and less on teaching. It is difficult to see how such learner-centred learning on its own could get beyond trial and error form of pragmatism.

This would not seem to be a basis for a high achievement system when more and more jobs are requiring conceptual knowledge and skills that cannot be learnt on the job alone.

This section has focused on one of the main features of a modular curriculum and outcomes approaches, their shift from the teacher-centredness which dominates traditional curriculum to learner-centredness. The limitation of learner-centred approaches is that in the context of wider efforts to reduce the influence of teachers and professional educators, it leads to the neglect of the need for new pedagogies, and more broadly, of a new professionalism among teachers. The next section turns to another aspect of the curriculum which learner-centred innovation neglects — its content.

Modules and Outcomes and the Organization of Educational Knowledge

I argued in the previous section that modularization and outcomes approaches tend to polarize learner-centredness and teacher-centredness. In this section, I want to turn to another polarization, that between content (in the sense of syllabuses, textbooks and bodies of knowledge) and the specification of learning objectives (which may be attainments or competences). Just as in polarizing learner and teacher-centredness the issue of pedagogy remains, so when outcome-led curricula are presented as alternatives to those that are content-led, we are left with the question as to what organization of knowledge will replace the traditional school subjects. This section examines some aspects of this question and argues that it cannot be resolved by modularization and an outcomes approach on their own but only if they form part of a broader and connective strategy for a curriculum of the future.

School subjects have been associated with low participation, narrow forms of specialization, a neglect of generic knowledge and skills, and the failure to provide any overall coherence for learners. However despite these weaknesses, and partly in the absence of any alternatives, subjects persist as the dominant organizing form of the post-16 curriculum. In the remainder of this section, I want therefore to consider how a modular curriculum based on learning outcomes might address these issues.

Incentives for Learning and Improving Participation

The IPPR report *A British Baccalaureate* (Finegold *et al*, 1990) argued that what distinguishes the English system of post-compulsory education from those of other comparable countries is its lack of incentives for learning for the majority. Selective 'A' levels, low status vocational alternatives and, at least until the recession, relatively attractive labour market opportunities for 16-year-old school leavers, all contribute to keeping down participation and achievement. The issue here is the extent to which incentives might be different within a modular system. The evidence provided by Raffe (1992) from a survey of students on the Scottish National Certificate (a modular and outcomes-based qualification), is that while its greater flexibility was welcomed by students, this did not lead to increases in

participation or achievement. The reason, Raffe suggests, is that, although modularization does remove constraints by increasing choice and being more flexible, it does not (and on its own cannot) create incentives for higher performance. Incentives are located in the institutional context. In the case of the Scottish National Certificate, this context was one in which vocational qualifications were still seen as signs of failure rather than achievement. It follows that either modularization needs to be part of a move towards a less divided system or that specific strategies for the recognition of vocational qualifications (by HE and employers) need to be put in place.

Breadth

The over-specialized nature of the English post compulsory curriculum has been widely recognized (CBI, 1993; Young, 1993), though breadth has often been expressed in a rather limited way (HMSO, 1988). By breaking up one and two year long courses into units of thirty or forty hours (Rainbow in Tait, 1993) modularization offers the flexibility needed for greater breadth of study. Breadth needs to be specified in terms of rules of combination of modules and criteria for balancing between specialized and broadening studies. Without such specification, student choices, as well as the modules offered by institutions, will be shaped by the pressures for over specialization expressed through the demands of HE admission tutors.

Generic Knowledge and Skills

The problem of over-specialization concerns not only the limited range of studies of most post-16 students in England. The insulated form of subject specialization limits their access to any new forms of knowledge and skills that are not subject-specific. A variety of attempts have been used to describe these new kinds of *generic* knowledge — overarching capabilities (Prospect Centre, 1991), connective knowledge and skills (Young and Spours, 1992), and symbolic analysis (Reich, 1991). All are trying to address the same issue — that the process of applying knowledge is as important as the knowledge itself. A modular curriculum can offer such possibilities and they can be defined in outcome terms. However, the development of generic knowledge and skills requires the specification of processes (for example, industrial experience, group work etc.) and therefore would require a curriculum that went beyond learning outcome criteria.

Coherence

Coherence in the present post-16 curriculum is limited in two senses. Firstly, it only applies to a small minority — those doing BTEC (National) and the 'A' level students whose subject choices relate clearly to their future. Secondly, in a subject-based curriculum, the possibilities for links between subjects are very limited. Again modular curricula create a whole new set of possibilities, at least in principle. However without a common system of credit, identifiable routes

and integrated systems of guidance (Young, 1992) modularization can easily lead to fragmentation.

Each of these examples illustrates one of the main themes of this chapter. Modularization and learning outcomes approaches to curriculum content are not an adequate basis, on their own, for an alternative to the existing organization of educational knowledge. Crucial decisions about content and process remain. In so far as such decisions are not made explicit in a new curriculum strategy, the old tendencies to selection and division of the subject-based curriculum will remain dominant. The final section, therefore, considers the elements of a broader curriculum strategy within which modularization and an outcomes approach would be a part and which could lead to a high participation/high achievement system.

Curriculum Connectivity: Towards a New Paradigm

Modular curricula and outcomes approaches may be seen as a radical critique of the existing curriculum. However, they do not of themselves, provide an alternative framework. Like the so-called scientific management that FW Taylor applied in analyzing industrial production, breaking up the curriculum into modules is only, at best, half the answer to questions of curriculum organization. It fails to address either the criteria for 'breaking up' or the basis on which the parts (modules) should be combined. What is needed is a new form of systems approach that links modules and outcomes explicitly to overall purposes. In order to do this the last section links the ideas of *connective modularization* and *connective outcomes* that were developed earlier in the chapter with the idea of a *Curriculum of the Future* (Young and Spours, 1992).

Modularizing the curriculum and defining modules in terms of outcomes are the first steps towards the design of a curriculum that could be truly said to involve learners. It is that which makes them at least potentially *connective*. However, neither outcomes nor modules (and here there is similarity to proposals for vouchers or training credits) are a system or a curriculum. Alone they treat learning as if it was like shopping in a supermarket. Whereas no system or relationship with sellers is required to shop in a supermarket except at the cash till, learning *is* a relationship or rather a set of relationships. The concept of connectivity refers to the need to link the purposes of learners, the activities of teachers with how they are connected to developments in the wider society. For example, teachers might design particular modules in technology and social studies which would have some purposes that would be intrinsic to the experiences of the students and their teachers. However decisions to develop such modules would largely need to be through an industrial policy that encouraged the development and marketing of new construction materials, and a welfare policy that was committed to developing new community care.

Connectivity, therefore, does not refer to a particular curriculum model but to how the purposes of a school or college are expressed in all its activities and how these activities work together to articulate and support the purposes of individual learners[2]. In other words, in emphasizing the idea of the curriculum as a whole system, it stresses the interdependence of the whole and the parts. It is useful to see connectivity as having three components:

- *Purposes*
  These refer explicitly to criteria for defining the choice and content of modules and how they can be combined in relation to different routes and pathways. The idea of *connective purposes* is closely linked to the concept *connective modularization* referred to earlier in the chapter.
- *Relationships*
  These refer to criteria for defining relationships between teachers and learners within and between organizations. The emphasis here is on *connective* pedagogies. However a broader notion of pedagogy is implied than just the relations between teachers and students; it would include relationships between schools and colleges and with employers and how these relate to the school or college.
- *Processes*
  These refer to criteria which define how learners will be supported through diagnostic assessment, advice, guidance etc. They are closely linked to the idea of *connective outcomes*, and how outcomes are realized in practice.

A variety of existing developments can be seen as initial and partial attempts to develop the different aspects of connectivity. Those listed below are only intended to be illustrative. Readers will be able to think of many other examples. The groupings are relatively arbitrary and suggest the extent to which they might be seen as emphasizing one or other aspect of connectivity outlined above. All attempt to break out of the division between localism and nationalism. For example:

Developments which emphasize connective purposes

- curriculum frameworks which make explicit a concept of coherence across the post 16 curriculum — for example, the International Baccalaureate and the Technological Baccalaureate.

Developments which emphasize connective relationships

- credit frameworks which facilitate transfer within a modular system-for example, the FEU's National CAT Network, London Together;
- the Northumberland/Surrey learning resources network;
- the Youth Award scheme for accrediting the 'supplementary' curriculum;
- consortia, compacts and federations of schools and colleges;
- the module design group as part of the Hamlyn Unified Curriculum Project.

Developments which emphasize connective processes

- examples of integrated guidance systems (the BP/Tower Hamlets Project).

Concluding Comments

In this chapter I have argued that on their own modularization and outcomes approaches have limitations as curricular strategies that are exposed by considering the context in which they have been developed. In relation to raising achievement

levels, they are at best tools rather than a strategy. To suggest what such a strategy might involve, I use the concept of connectivity which extends, to the curriculum, ideas of holographic and neural systems that Morgan (1988) applies to the analysis of organizations. It is a way of expressing the idea that a curriculum of the future needs to be a system, albeit a new kind of *open* system. Two features distinguish *connective* from *traditional* models of system. Firstly, they are open because their concept of purpose involves the future and therefore cannot be fixed or certain. Secondly, they emphasize feedback. A connective curriculum not only shapes learner purposes, it has to be shaped by them.

Within the framework of a connective curriculum modularization offers the possibility of student choice and new combinations of study that can relate student purposes to the options a society has for the future. Likewise outcomes become not just a method of defining module content and providing evidence on which students can make decisions but are linked to the ways that those outcomes may be realized.

Connectivity is a vision of a curriculum of the future, but not only a vision. It can point to specific strategies for teachers whether they are designing modules, recording achievement of their students or assessing their work. It can also make explicit how such everyday practices are linked to the ways that schools and colleges are themselves part of a connective system and the kind of future a society envisages for itself. In so far as connectivity becomes a feature of our educational arrangements, we stand a better chance of converting the current rhetoric of the need for high achievement into a reality.

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Notes

Post-16 participation rates have of course increased markedly in the three years since the publication of the IPPR report A British Baccalaureate (Finegold *et al*, 1990) in 1990. However, given that these increases have not been followed either by a substantial increase in staying on at 17+, or by evidence of a significant increase in levels of achievement (HMSO, 1993; Spours, 1993), there is every reason to suppose that the analysis in the report still applies.

2 These suggestions take further an earlier attempt to develop the idea of connectivity through a concept of *A Curriculum of the Future* (Young and Spours, 1992). In that discussion paper we emphasized connectivity at three levels- content and structure (i.e. rules of combinations of modules) process (i.e. guidance, formative assessment, action planning recording achievement and tutorial support) and organization (the lines of communication within colleges and between them and other institutions).

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ANNEX

List of Contact Persons for Venues and Sites for Field Testing

Organisation	Contact Person	Address	Telephone/Fax
Aerospace Industry Training Board	Ms Gayle Newby	Trainer Development Astro Park Premises R4 Building R29 Atlas Road Kempton 1620	011-927 2563 T 011-359 1229 F
Consortium for Professional Development for Distance Educators (SACHED, SAIDE, VISTA, etc.)	Ms Jenny Glennie (SAIDE)	SAIDE P.O. Box 31822 Braamfontein 2017	011-403 28 13 T
HSRC	Ms D. Barry	Pretorius Street Pretoria 0001	012-2022211 T
National Progressive Primary Health Care Network	Ms Elise Appel	P.O. Box 192 7764 Gatesville	021-696 4954 T 021-696 9308 F
SACHED	Mr Roy Williams	P.O.Box 11350 Johannesburg 2000	011-333 9746 T 011-333 2297 F e-mail: roytw@bridges.co.za
SANDF COLET South African National Defence Force College for Educational Technology	Ms Corné Briel	Private Bag XI Valhalla 0137	012-654 4050 /1/2/3 T 012-654 7609 F
Skills Training for Employment Centre	Ms Sharon Parker	P.O. Box 257 Salt River 7925	011-448 24 58 T 011-448 05 16 F
Technikon Pretoria	Dr. Marié Fowler	Bureau for Staff Development Private Bag X 680 Pretoria 0001	012-318 5431 T 012 318 5793 F
The South African Nursing Association	Ms Nelouise Geyer	P.O. Box 1280 Pretoria 0001 605 Church Street	012-343 2315 T 012-344 0750 F