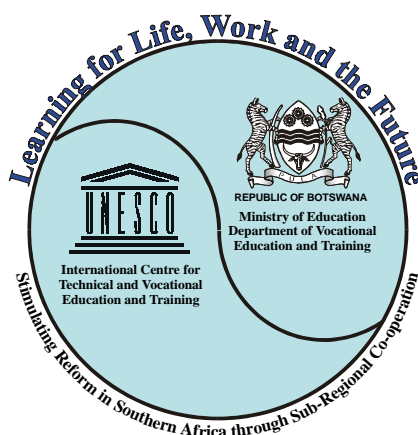


Learning for Life, Work and the Future

Stimulating Reform in Southern Africa
through Subregional Co-operation

Initial Workshop

Gaborone, Botswana
5 to 8 December 2000



An initiative launched jointly by:



Ministry of Education
Department of Vocational
Education and Training



UNESCO's International Centre for Technical and Vocational Education and Training

UNESCO's International Centre for Technical and Vocational Education and Training (UNESCO-UNEVOC) in Bonn, Germany, started its operations in September 2000. It was established based on a decision by the General Conference of UNESCO in November 1999.

The Centre in Bonn is a milestone in UNESCO's new approach to technical and vocational education and training. It plays an important role in UNESCO's long-term international Programme on Technical and Vocational Education and Training which was launched in early 2000.

Through the Centre, UNESCO seeks to provide a platform for inter-agency co-operation within the system of the United Nations and beyond. The International Labour Organization (ILO) in particular is a natural partner of UNESCO in the field of vocational education and training.

The first major initiative launched by the new UNESCO-UNEVOC Centre was the initiative "*Learning for Life, Work and the Future: Stimulating Reform in Southern Africa through Subregional Co-operation*".

The Department of Vocational Education and Training of the Ministry of Education of Botswana

The Department of Vocational Education and Training (DVET), Ministry of Education, Botswana, has overall responsibility for the planning and implementation of technical and vocational education in Botswana. The Department is currently in the process of introducing new programmes meeting international standards, which are designed in co-operation with industry, which are outcomes-based and modularised and designed for flexibility and lifelong learning. After going through a period of using or adapting European programmes, the department is now equipped to develop technical and vocational education in Botswana for Botswana. A Quality Assurance and Assessment Unit has been established to ensure that agreed quality criteria are maintained at all times. Apart from building several new institutions, increased access will be achieved through a very high utilisation of facilities and distance education in combination with e-learning. A major strategy for the way forward is to raise the level of training, by putting more emphasis on technician training than artisan training, to meet the new demands of industry, the technology revolution and the knowledge society. The Department has about 100 employees, out of which about 65 are professionals.

This report was prepared jointly by UNESCO's International Centre for Technical and Vocational Education and Training, Bonn, Germany and the Department of Vocational Education and Training, Ministry of Education, Gaborone, Botswana. Editorial assistance: Ms Jane Swartland, Mr Jim Sullivan. Photographs: Ms Sabine Ayeh. Production: Mr Hans Kröner.

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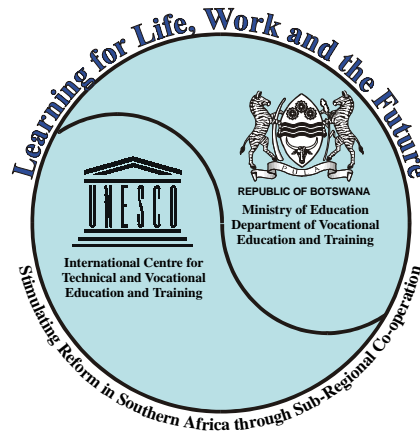
- Member States of the Southern African Development Community (SADC) that participated in the Gaborone Workshop
- Member States of the Southern African Development Community (SADC) that were not able to attend

Abbreviations

CATS	Credit Accumulation and Transfer Scheme
CBET	Competency-Based Education and Training
ICT	Information and Communications Technology
LLWF	Learning for Life, Work and the Future
NQF	National Qualifications Framework
RQF	Regional Qualifications Framework
SADC	Southern African Development Community
TVE	Technical and Vocational Education
TVET	Technical and Vocational Education and Training

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Acknowledgements

The organisers of the Gaborone workshop would like to thank the participants who contributed their time and expertise to ensure the objectives were met and concrete outputs were achieved. We also wish to acknowledge and express our appreciation of the financial contributions from UNESCO, the German Federal Ministry of Economic Co-operation and Development, and the Government of Botswana. That financial support enabled us to bring together experts from all over Southern Africa and resource persons from both near and far. The organising teams and support staff both in Botswana and in Bonn also did a splendid job. Thank you all.

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Foreword

At UNESCO's Second International Congress on Technical and Vocational Education, which was held in the Republic of Korea in 1999, participants had adopted a range of recommendations concerning the development and improvement of technical and vocational education and training in Member States.

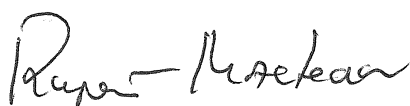
While these recommendations received unanimous support, participants expressed the need to make them more operational and to promote their implementation, particularly in developing countries.

To this end, the Department of Vocational Education and Training of the Ministry of Education of Botswana and UNESCO's International Centre for Technical and Vocational Education and Training (UNESCO-UNEVOC) in Bonn jointly elaborated an initiative entitled "Learning for Life, Work and the Future: Stimulating Reform in Southern Africa through Subregional Co-operation". This initiative was launched at a workshop held in Gaborone, Botswana, in December 2000.

The workshop addressed a number of challenges which are common to the countries in Southern Africa, and developed them into individual follow-up project proposals. This bottom-up approach, with an intense inclusion of experts and decision-makers from the region from the outset of the project, ensured that the needs of the countries are closely met, and that the approach will be instrumental in achieving sustainability of project results. The immediate presentation of the workshop results to representatives of donor agencies added another dimension to that approach.

The International Centre for Technical and Vocational Education and Training (UNESCO-UNEVOC) is currently examining the launching of similar initiatives in other regions.

I am pleased to present the report of this workshop, which is again a collaborative achievement of the Department of Vocational Education and Training of the Ministry of Education of Botswana and of UNESCO's International Centre for Technical and Vocational Education and Training in Bonn, Germany.



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Report on the Workshop

By Jakes R. Swartland

1 Introduction

1.1 Background

The Department of Vocational Education and Training (DVET) in the Ministry of Education of Botswana, together with UNESCO, through its newly-established International Centre for Technical and Vocational Education and Training in Bonn, Germany, developed an initiative entitled “*Learning for Life, Work and the Future: Stimulating Reform in Southern Africa through Subregional Co-operation*”. This initiative was officially launched at a workshop under the same title in Gaborone, Botswana, from 5 to 8 December 2000.

The initiative was one of the follow-up actions of the 2nd International Congress on Technical and Vocational Education organised by UNESCO in collaboration with the Republic of Korea in Seoul, in April 1999. The Congress, whose theme was “*Lifelong Learning and Training: A Bridge to the Future*”, concluded that Technical and Vocational Education, as an integral component of lifelong learning, should encompass good quality programmes with wider access, more flexibility, new information technologies and provision for the unemployed and the informal sector. In addition, it should stimulate partnerships between government and industry, community and non-governmental organisations. The Congress also emphasised the importance of articulation, accreditation and recognition of prior learning to enhance the opportunities of all learners.

The “*Learning for Life, Work and the Future*” (LLWF) initiative expanded the vision of Technical and Vocational Education (TVE) to Technical and Vocational Education and Training (TVET) in recognition of the fact that education and training should be seen as a lifelong learning process that enhances the quality of life for all.

1.2 The Purpose and Strategy of the LLWF Initiative

The main purpose of the initiative was to encourage and stimulate partnerships in TVET among countries in Southern Africa, and to facilitate the implementation of the Seoul recommendations there.

The participants of the Congress in Seoul expressed the need to put in place mechanisms for the implementation of the recommendations, which had been unanimously supported and accepted. The Ministry of Education of Botswana offered to host a workshop for

the Southern Africa Region. The countries concerned were Angola, Botswana, the Democratic Republic of the Congo, Lesotho, Malawi, Mauritius, Mozambique, Namibia, Seychelles, South Africa, Swaziland, the United Republic of Tanzania, Zambia and Zimbabwe. This was made possible through the mobilisation of UNESCO’s Participation Programme, with further and substantial financial assistance from the German Federal Ministry of Economic Co-operation and Development, through UNESCO’s International Centre for Technical and Vocational Education and Training in Bonn, and the Government of Botswana.

In addition to the mobilisation of resources, expertise within the subregion was also needed. There was a general consensus that policies and reforms to improve the quality of TVET in the subregion either already exist or are under continuous review. What was required was a sustainable strategy for the implementation of these policies and reforms as well as improved management and co-ordination through subregional co-operation. It was therefore agreed that a workshop rather than a seminar or conference be organised, targeting specifically practitioners of TVET, with the ultimate aim of producing concrete and implementable project proposals.

The main objective of the workshop was therefore to stimulate subregional co-operation through identification, prioritisation and initiation of projects, with emphasis on common critical challenges and issues identified.

1.3 Preparation for the Workshop

An initial planning meeting was held in Bonn between a representative of the Ministry of Education in Botswana and staff of the UNESCO International Centre in Bonn during the month of July 2000. It was at this meeting that the decision to organise the workshop was taken, and a number of common challenges faced by the countries in the subregion in the field of TVET were identified. These included, inter alia:

- The need to widen *access* and address equal opportunities to include disadvantaged groups
- The need to increase *formal sector* opportunities for TVET graduates through targeted programmes
- The need to improve the quality of training in the *informal sector* and for *self-employment*
- The need to improve the quality of the *teaching staff* through professional development programmes

- The need to harness the potential of the *new information technologies* to provide technology-based learning and widen access
- The need to introduce proper *articulation, accreditation and recognition* mechanisms
- The need to acknowledge and address the *impact of HIV/AIDS* on TVET structures and delivery

The underlying principle was to have a good quality TVET system which was flexible, adaptable and innovative.

A Steering Committee composed of staff of the Botswana Ministry of Education and UNESCO's International Centre in Bonn was constituted to make the necessary arrangements for the proposed workshop. To facilitate the organisation and to enhance the teamwork, an officer from Botswana was seconded to the UNESCO International Centre in Bonn for five weeks during the preparation stage.

TVET experts from the subregion were invited to contribute to the preparation of the workshop by submitting discussion papers on one or two challenges/issues mentioned above. Altogether over 60 papers were submitted. A Consultant, with the assistance of the Steering Committee, reviewed the papers for their relevance and appropriateness. This evaluation of the papers was the main criterion for the selection of the participants to the workshop. However, the Steering Committee also took into consideration other criteria such as geographical spread, gender balance, a judicious mix of young and senior professionals, and the balance of key issues to be addressed. Finally 70 participants composed of decision makers, heads of institutions and experts in TVET were invited from twelve Southern African countries: Botswana, Lesotho, Malawi, Mauritius, Mozambique, Namibia, Seychelles, South Africa, Swaziland, the United Republic of Tanzania, Zambia and Zimbabwe. Communication breakdown prevented the invited person from the Democratic Republic of the Congo from participating. There was no response from Angola. Some resource persons from UNESCO, Southern Africa and Europe were also amongst the participants.

Donor agencies were also invited, mainly to participate during the final day when project proposals were presented and discussed in a "Market Place" session, as described below.

The Main Working Document was prepared by the Consultant with the assistance of the Steering Committee, based on the content of the submitted papers. (*This document can be found on page 11.*)

1.4 Opening Plenary Session

The workshop was officially opened on Tuesday, 5 December 2000 in the Gaborone Sun Hotel,

Gaborone, in the presence of Mr K. G. Kgoroba, the Honourable Minister for Education of the Republic of Botswana. Invited guests included Heads of Diplomatic Missions in Botswana and representatives of several bilateral and international donor agencies.



In his opening address, the Minister underscored the use of ICT to expand access to education, increase flexibility in delivery and improve quality. He stated that changes in the world economy coupled with rapid advances in communication technologies are having an enormous effect on the labour market. This has resulted in a high level of unemployment, retrenchment and frequent job changes, emphasizing the need for multiskilling, lifelong access to education and training, and support for small and micro business ventures and informal sector activities. This in turn has changed the role of education and training. The Minister emphasized that the initiative was a response to a situation whereby most countries in the subregion tended to have closer links to Europe than with each other in respect of technical and vocational education and training. This resulted in strong north-south links but few south-south links through which countries in the subregion could learn from each other. (*The full text of the Minister's speech can be found on page 19.*)

Mr Hans Kröner, Acting Director of UNESCO's International Centre for Technical and Vocational Education and Training in Bonn, was speaking on behalf of UNESCO in expressing his belief that the existing diversity of environments and approaches to TVET should not be looked upon as a barrier to collaboration, but rather as a rich resource and a valuable basis for cross-fertilization as well as a challenge to make intelligent use of existing options, ideas, solutions and innovations in technical and vocational education and training. (*The full text of UNESCO's address can be found on page 21.*)

1.5 Workshop Organisation

The workshop was structured into working groups based on the main challenges and issues already mentioned, with logistical support provided by the staff of DVET and of UNESCO's International Centre for Technical and Vocational Education in Bonn.

There was general consensus that during their discussions the groups needed to be guided towards the following outcomes:

- Analysing and prioritising areas and issues of common interest in the light of their flexibility for joint planning, research, development and action in the subregion
- Providing substantive input for feasible project proposals in terms of objectives and outcomes
- Indicating interest in participation in subregional networks
- Establishing project-based linkages with donor agencies and experts from other regions, and partnerships with other stakeholders.

A professional, Mr Thomas Dosch, was therefore engaged as Chief Moderator to train twelve selected participants as moderators charged with the task of guiding and facilitating discussions. The training was based on the principle of alternate group discussion and written documentation – talk and write – using professional facilitation methods. The advantage of this procedure is that it ensures universal participation, visual structuring and flexibility, with documentation using coloured cards to note important conclusions or agreements. This training took place the day before the workshop.



In addition a subcommittee of DVET staff was established to assist the moderators with reporting and monitoring throughout the workshop. Furthermore, members of the subcommittee who actively participated in the brainstorming exercise also made sure that documents were drafted in the agreed format for presentation at the plenary session and, through judicious time management, that the projected outcomes were met.

2 Workshop Proceedings

2.1 Plenary Sessions

Three plenary sessions were held before the participants were divided into groups.

The first session was a presentation of the Main Working Document by J. R. Swartland, the Consultant for the workshop. He informed the participants that this document was based on their contributions. Quoting from participants' papers, he noted that these submissions succinctly endorsed the challenges and issues identified at the initial meeting in Bonn. The Working Document had been prepared as a reference document for the working group discussions.

The second session was a two-hour joint practical presentation on ICT entitled "*Information and Communication Technology-Based Training Approaches and Effective Regional Co-operation*" by practitioners from Germany and South Africa (including the private sector). The presentation demonstrated how ICT, and in particular the world-wide web, may be used for a variety of training purposes, and how a public-private partnership could be formed to develop ICT-based training systems.



The third was a presentation by Professor Ulla Kann, Regional Education Consultant for the Swedish International Development Agency (SIDA), who reflected on what has happened and is likely to happen

regarding donor/funding agency support to TVET. She reminded participants that while international declarations made at Jomtien and Dakar advocated basic education for all, and universal adult literacy as a means of alleviating poverty, they failed to make the crucial link to training as a natural and essential corollary.

Prof. Kann argued, however, that the situation would change for the following reasons:

- Firstly, the success of the movement of "*Education for All*" would result in an increase of unemployment among young school-leavers, with the pendulum swinging towards demands from the civil society for education and training to be adapted to suit the needs of the labour market, lifelong learning, and survival in the world of work.
- Secondly, the Sector Programme support, or Sector-Wide Approach to programming adopted by the donors, implies a move away from projects and towards support to the whole sector of education and training – which, it is hoped, will lead to increased focus on TVET.

She concluded that globalised policies (for both agencies and governments) such as poverty alleviation and reduction, gender equity, the fight against HIV/AIDS, and sustainable development would ensure support for TVET programmes that include these issues.

2.2 The Working Groups

With the assistance of the Consultant and the Chief Moderator, participants were divided into six working groups to address the following challenges:

1. Access and equity
2. Raising the quality of TVET
3. Staff training and professional development
4. Information and Communication Technology in TVET
5. Unemployment and training for the informal sector
6. Recognition and accreditation of qualifications within the TVET system.

It was agreed that since the impact of HIV/AIDS affects all these issues, it should be addressed by all groups.



Using the above methodology and with the 'just-trained' moderators as facilitators, the groups identified and developed the project proposals that follow:

2.3 Project Proposals

Group 1	Access and Equity
Project proposal:	Enhancing access to effective Technical and Vocational Education and Training
Project objectives	To highlight key barriers to accessing Technical Vocational Education and Training (TVET) and identify interventions to address such barriers
Group 2	Raising the Quality of TVET
Project proposal	The group initiated two projects, summarised as follows: <ol style="list-style-type: none"> 1. Project for quality assurance in TVET 2. Project for TVET teaching
Project objectives	<ol style="list-style-type: none"> 1. To establish quality assurance mechanisms for the reliability of TVET standards up to technician level within the SADC region 2. To develop standards, quality curricula and resources for the pedagogical training of TVET teachers that can be adapted or adopted by individual SADC countries
Group 3	Staff Training and Professional Development
Project proposal	Strengthening Technical/Vocational Teacher Education in selected SADC Member States
Project objectives	To strengthen the capacity of both teachers and support staff in TVET and the institutional facilities provided; to standardise ICT systems and education to support and relate to staff training; to reduce the incidence of HIV/AIDS among staff through pre- and in-service education programmes
Group 4	Information and Communication Technologies (ICT) in TVET
Project proposal	Promoting and developing ICT in TVET in the SADC region
Project objectives	To create an educated and skilled society that will support economic development, alleviate poverty, and sustain employment by facilitating the imparting of TVET in all parts of the region
Group 5	Unemployment and Training for the Informal Sector
Project proposal	The introduction of an overall policy for informal sector training among Member States
Project objectives	To provide good quality and accessible training and other support services to the informal sector, in order to provide gainful employment, job creation and poverty eradication and reduction
Group 6	Accreditation and Certification of TVET
Project proposal	To formulate a National Qualifications Framework (NQF) leading to a Regional Qualifications Framework (RQF) for SADC. This will include a Credit Accumulation and Transfer Scheme (CATS)
Project objectives	To create an educated and skilled society that will support economic development, alleviate poverty and enhance investment through the development of an RQF, CATS, regional standards, a database and training, and to improve the image and status of TVET

More detailed project proposals produced by the groups can be found on page 23.

2.4 The “Market Place” Session – with the Participation of Donor Agencies

Several donor agencies were invited during the last day of the workshop to participate in a “Market Place” session where project proposals were presented and discussed with the participants.



This was followed by a plenary session during which each donor representative gave a perspective of his organisation, including its policies, the procedures for seeking support, and the targeted priority areas. Their presentations endorsed Prof. Kann’s view of the move towards a sector-wide approach, and almost all of them expressed interest in the outcomes of the workshop, and indicated possibilities of involvement in follow-up action in consultation with the SADC Secretariat and Member States. This was a very stimulating discussion, beneficial to both parties.

3 The Way Forward

The workshop in Gaborone served to launch the initiative “*Learning for Life, Work and the Future: Stimulating Reform in Southern Africa through Subregional Co-operation*”. Consequently, a range of activities is envisaged to develop south-south co-operation among the participating countries. Both the Department of Vocational Education and Training and UNESCO’s International Centre for Technical and Vocational Education and Training in Bonn will assume active roles.

- The project proposal documents will be finalized. The participants took their proposals through the first phase of the project cycle, which was project identification. Further support is required to take these proposals through the detailed formulation phases of the project cycle to the stage where they are finalised in respect of scope and structure and thereafter developed into operational project plans.
- UNESCO and DVET will offer their support in identifying appropriate funding agencies to assist in the implementation in selected projects as required. At this juncture, the project rationale can be developed and the cost can be quantified and offered to the funding agencies for consideration as a feasible and viable project proposal ready for implementation.
- During the last phase of the workshop, participants were given opportunity to indicate their country’s as well as their personal interest in subregional co-operation in the areas in question. Furthermore, they were invited to determine the areas in which they (or their country) might assume facilitating roles. On their return to their countries, a number of participants have already confirmed their interest in the co-ordination of certain proposed projects
- Logistic support will be provided by UNESCO’s International Centre for Technical and Vocational Education and Training in Bonn as well as by DVET to facilitate communication among the participants of the workshop and their respective institutions. The UNESCO Centre in Bonn has already provided the technical platform of an E-Mail-based “LLWF Mailing List”. The UNESCO Centre in Bonn is likewise prepared to support this process through a special “LLWF Newsletter”, it being understood that the e-mail list and newsletter might be taken over by partners in the subregion as soon as possible, thus contributing to capacity building in the subregion. Both platforms will enable participating countries to easily share information, experiences and expertise.

The UNESCO Centre in Bonn is prepared to guide the implementation of selected projects that are expected to emerge from the initiative, and to render its services for their evaluation.

Main Working Document

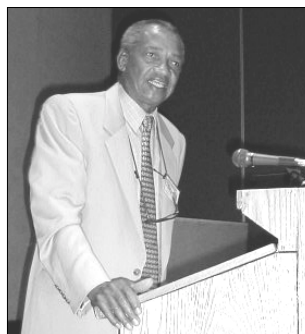
By Jakes R. Swartland

1 Introduction

This is a workshop, not a seminar or conference where the emphasis is on presentation of papers. It is one of the follow-up actions to the Second International Congress on Technical and Vocational Education whose theme was Lifelong Learning and Training: A Bridge to the Future. The Congress concluded that, as an integral component of lifelong learning, Technical and Vocational Education (TVE) has a crucial role to play in the twenty-first century as an effective tool to realising the objectives of a culture of peace, environmentally-sound sustainable development, social cohesion and international citizenship.

In particular, it recommended that a technical and vocational education system should

- Encompass inclusiveness and wider access
- Have good quality programmes that are open, flexible and learner-oriented
- Prepare individuals more generally for life and the world of work
- Develop close interfaces with all other education sectors to facilitate a seamless path for learners, the emphasis being on articulated accreditation and recognition of prior learning to enhance their opportunities
- Inspire in young people a positive attitude to innovation to enable them to prepare for self-reliance
- Reach out to the informal economic sector, which is often excluded in the spectrum of life
- Be extended to prepare students and adults for the real possibility of frequent career change, including periods of employment and unemployment in the informal sector
- Involve all stakeholders, particularly industry and educationalists, through mutual partnerships so that each can learn from the other in their approaches to lifelong learning
- Harness the potential of new information technologies to provide technology-based learning and widespread access
- Establish quality assurance procedures to ensure a new higher status for technical and vocational education. Qualification standards, certification processes, valid assessment methods and acceptable outcomes are all key ingredients of a good quality technical and vocational education system.



Papers submitted for this workshop endorsed some of these issues, and also mentioned reforms and developments that have been put in place not only to improve the quality of TVET but also to improve its management and co-ordination. Policies

relating to TVET are under continuous review, and reforms and statutory bodies have either been, or are about to be, established, as is evidenced by the following edited extracts from the papers. They highlight some ideas which have the potential for projectisation.

- An autonomous government agency, the Namibian Training Authority (NTA), should be established as the supreme co-ordinating body on the implementation of the VET policy. (*Siririka, Namibia*)¹
- The mission of TEVET Authority (TEVETA) is to contribute to personal development and respond to labour market demands by providing technical, entrepreneurial and vocational education and training. This will increase productivity and the production of quality goods using environmentally appropriate technology, and will instil a spirit of entrepreneurship in both wage earners and the self-employed, finally alleviating poverty. (*Kafere, Malawi*)
- The establishment of the Vocational Education Training Authority (VETA) in 1994 and the subsequent adoption of a new Vocational Education and Training System are a result of economic changes in the socio-economic environment in the United Republic of Tanzania.
- The Industrial and Vocational Training Board (IVTB) became operational in 1989. Its objectives include, inter alia, advising the Minister on matters related to training; monitoring the need for training in consultation with relevant authorities; providing for, promoting, assisting with and regulating the training schemes. (*Seychelles*)
- As part of the implementation of the national TVET policy, the Vocational Training Act was passed in 1998 to officially establish the Botswana Training Authority. (*DVET, Botswana*)

¹ Quotations from Participants' Papers are drawn from the original versions of the papers, whereas the papers on page 29ff. are summaries of the original versions.

2 The Purpose of the Workshop

The main objective of this workshop is to stimulate regional co-operation in the reform of technical and vocational education; the main outcome is to identify, prioritise and initiate subregional projects which will facilitate reforms of TVET in the subregion with emphasis on the following key issues or challenges:

- Access to TVET
- Raising the quality of TVET
- Staff training and professional development
- Recognition and accreditation of qualifications within the TVET system
- Unemployment
- Training for the informal sector
- The role of ICT in the TVET system
- The impact of HIV/AIDS within the TVET system.

The issues and problems are discussed in more detail below, taking into consideration matters raised in the papers prepared by the various participants from the subregion. It should be noted that the relevance and use of ICT permeates through all these issues.

3 Access to TVET

This is an issue that permeates all national policies on TVET. Most papers submitted stated that demand for TVET places is much greater than supply. Equal access and opportunity is illusory because of inadequate facilities and equipment.

The existing infrastructure and programmes still need to be improved in a number of ways to cope with the increased number of students.
(Munetsi, Zimbabwe)

Much of the demand lies not in urban areas, but in rural and remote areas where education and training facilities are under-resourced or non-existent.
(Kopeka and Waterman, Lesotho)

Regarding the issue of equal opportunities, one of the Zambian papers stated that:

The equal opportunities philosophy, although written down, has been very difficult to implement. For example, the retired and the retrenched need retraining but there are no special courses for these people...the same applies to women and to those with special needs. (Mupanga, Zambia)

The suitability of TVET programmes for different target groups and local needs also affects access.

The 1996 policy on TVET emphasises demand-driven training as most programmes were completely at variance with what was happening in industry.
(Mupanga, Zambia)

In response to this 'demanding' challenge, a system of Technical, Entrepreneurial and Vocational Education and Training (TVET) was created which is

flexible and demand-driven, and focuses on the skills and competencies required in the labour market.
(Chafa, Malawi)

The Mauritius paper further endorses this issue by stating that:

A Mauritian workforce that is skilled, knowledgeable, competent, flexible and always re-skilling and/or upgrading itself is necessary not only to attract foreign direct investment but also to ensure its capacity to be more productive, innovative and competitive. Programmes to fit people rather than people fitting into programmes. (Dubois, Mauritius)

In translating equality of access into full equality of participation, the priority must therefore be to tackle these barriers to participation. Possible solutions include the innovative use of facilities; cost-effective design and construction of facilities and their usage; putting equal opportunities policies in place; having a wide range of programmes that are flexible to suit all target groups.

4 Quality of TVET

A South African Experience: Integration of Education and Training in South Africa

Traditionally education and training were seen and treated as separate entities with separate and disparate purposes. The former was seen primarily as a means of developing the child as a person while the latter prepares the person for the performance of a specific type of work. The concept of integration, of an integrated approach to education and training, demands an effort to recast the thinking about education and training in the traditional mould as separate definable entities, limited to certain periods of an individual's life, into thinking about them as a single entity within a single system. Education and training should be seen as a lifelong learning process in order to enhance quality of life for all.
(Samuels, South Africa)

If there is general acceptance of this view, we should rephrase the statement in the *World Declaration on Education for All* regarding learning to read as follows:

Whether or not expanded education and training opportunities will translate into meaningful development – for an individual or for society – depends ultimately on whether people actually learn as a result of those opportunities; that is, whether they incorporate useful knowledge, reasoning ability, skills and values.

Our interpretation of 'quality' should be much more than the sum of institutional buildings, teacher-training programmes, curriculum reforms, and provision of learning, training and teaching materials and equipment. It should be based on the belief that if education and training is to succeed in its complex task of responding to the multiplicity of demands, it must be organised around four fundamental types of learning which Delors refers to as the *Four Pillars of Education*:

- Learning to know
- Learning to do
- Learning to live together
- Learning to be.

Learning to know and learning to do are to a great extent indissociable, but learning to do is more closely linked to the question of technical and vocational education and training. If TVET is to succeed in its task, it must be organised around these four fundamental types of learning. In this regard, pre-vocational subjects in general education are desirable.

The Korea Congress recommended a new holistic approach that includes all demands of learning, incorporating general and vocational education, to enable the learner “to launch into a lifelong continuum of knowledge, values and attitudes, and competencies and skills”.

A good quality TVET system should be flexible, adaptable and innovative and

- Take advantage of local, regional and global opportunities and concerns
- Address the implications of changing labour markets
- Train and re-train the employed, unemployed and the marginalized with the objective of achieving equality of opportunity for all in both the formal and informal sectors of the economy.

5 Staffing of TVET

Two facts:

- The quality of TVET is inextricably linked to the quality of its teachers and tutors.
- The shortage of appropriately trained trainers in the subregion is severe.

National reviews of education and training reveal that almost 90% of vocational teachers and instructors working in the public vocational training system require continuous upgrading of training skills.

The report of the pre-feasibility workshop for a vocational training programme of the proposed Botswana Vocational Teacher Training College concluded that:

With the continued expansion of the public vocational training system, the rapid and uncontrolled growth of private training institutions and the emphasis on a vocational training which is geared more appropriately to the needs of industry and employers, the gap between the supply of appropriately skilled vocational trainers and current and future demand is substantial. This gap is both quantitative and qualitative.

The greatest challenge faced by the training institution is to produce graduates with a wide range of skills required for employment in the formal sector and self-employment in the informal sector: graduates who will adapt to the rapidly developing technology. It is not surprising therefore that the preparation of such a cadre of people is becoming a very complex process, requiring teachers and instructors who have a good foundation of general education as well as technical and vocational skills. In addition, it is desirable that they have some form of industrial experience and, more importantly, that they should be continuously upgraded throughout their careers. But the reality is that teachers at TVET institutions are deficient in either their theoretical or practical skills.

There are several underlying causes of such a state of affairs:

- Poor conditions of service and low levels of remuneration as compared with other tertiary institutions
- Lack of staff development programmes
- Lack of appropriate career opportunities
- The low value accorded to vocational as opposed to academic education
- Lack of staff with appropriate skills in the so-called untraditional vocational course: e.g. music, sport and recreation

Other possible interventions and solutions are suggested below:

- National Training Authorities should create a new Professional Training Service (PTS) established on attractive salaries and conditions of service
- Entrants to the PTS should possess at least a skill certificate, a technical or technological qualification
- Competency in key skills such as communication, numeracy, basic IT and interpersonal relationships is important.
- Post-qualification work experience is essential
- Training staff could be given industrial or commercial experience at least once every three to four years.
- Training staff in industry or commerce could be attached or seconded to institutions on a regular or part-time basis, not only to cover shortages, but also to bring work ethics into the training.

6 Recognition and Accreditation

The problem of accreditation and certification of qualifications of the TVET programmes and courses is succinctly captured in the Mauritian paper:

There are about 30 certification systems (British, French and Mauritian) operating in parallel in

Mauritius, which lead to much confusion. The problem of equivalence is difficult to sort out as different awarding bodies issue these certificates. In addition many private training centres deliver their own certificates which add further confusion. (Dubois, Mauritius)

The Botswana National Training Authority Secretariat commissioned a study to chart the way forward for the establishment of the Botswana National Vocational Qualification Framework in 1998/99. The following is an extract from the study:

The inventory of almost 700 vocational awards compiled by this study, and more especially the difficulty of trying to evaluate the real worth of these consistently across a wide spectrum of purpose, duration, title, field and level, reveals the major problem of the Botswana Vocational Education and Training system. Like many developing nations, it has inherited some systems and developed others which, over time, have simply ceased to articulate with each other.

This is a familiar story in many of the countries participating in this workshop, and some are already taking action to remedy the situation.

Tanzania's Competency-Based Education and Training (CBET), mentioned above, tackles the certification issue through a cross-curricular approach in which the entire programme provision is modularised and credit-based, allowing learners to combine different modules.

The Zimbabwe initiative is an innovative attempt to develop a flexible occupational standards framework which is demand-driven, and which integrates efficiently with private and public sector education and training programmes as well as with an emerging national qualifications framework.

Consequently, in 1999, the Zimbabwe Occupational Standards Service (ZOSS) was established as a two-year pilot project to develop and recommend concepts, procedures, structures and systems for the achievement of the project objective, as outlined below:

- Development of a multi-stakeholder and industry-driven organisation to develop and facilitate an effective partnership between Government, business and industry
- Development of ZOSS as a national, regional and international centre of excellence based on DACUM

Though the project is co-sponsored by Zimbabwe Development Fund (ZIMDEF) and GTZ, it has the potential for multi-donor support because of its viability as a regional resource centre.

One of the Botswana papers proposed the establishment of a Credit Accumulation and Transfer System (CATS). These systems apparently allow students mobility and access to further and higher education through the accumulation of educational credits and the application of these towards a further and higher

education qualification. The underlining principles are accessibility, transferability, flexibility and cost efficiency. It is argued that this model could initially be developed nationally, and later throughout the SADC region.

Many countries the world over, including South Africa (see box), have in place a National Qualification Framework (NQF). As one of the papers pointed out, the Second International Congress on Vocational Education and Training held in the Republic of Korea in 1999 considered a NQF to be important, and made recommendations accordingly.

Lastly, the following extract from Mauritius may point the way forward:

It is strongly felt that the experience of countries that have made tremendous progress in setting up their national Qualification Framework should be sought. This subregional workshop could be an important forum for exchange of views and experiences. Eventually a regional qualification framework could be contemplated for the SADC countries. (Dubois, Mauritius)

The National Qualification Framework

The National Qualification Framework (NQF) is based on a system of credits for learning outcomes achieved. A learning outcome is essentially a capability developed in the learner reflecting an integration of knowledge and skill which can be understood, applied and transferred to different contexts. The achievement of a qualification in such a system is not dependent on attendance at particular courses, but by a learner accumulating credit on an agreed cluster of learning outcomes defined by full-time, part-time or distance learning, by work-based learning or by a combination together with the assessment of prior learning.

The NQF is designed to:

- Introduce a fair assessment system, which measures achievements against clearly stated national standards;
- Establish a dynamic and flexible system able to adapt quickly to new developments in the labour market, workplace, education and training;
- Encourage more people to participate in further education and training;
- Develop learning which is relevant and responsive to the needs of the individual, the economy and society;
- Promote access to learning;
- Provide a variety of routes to qualifications, and
- Provide national quality assurance.

(Samuels, South Africa)

7 Unemployment

Unemployment of young school-leavers is especially high and is a source of great concern to every Government in the region, and considered by many to be a 'time-bomb'. This statement appeared in one of the papers sent to participants to a Seminar on Education and Training for Employment Creation in the SADC countries, held in Zimbabwe during April in 1989.

Submitted papers on this subject indicated that the situation hasn't changed since then. In fact, it seems to have become worse:

One of the main challenges facing Malawi today is the problem of unemployment amongst its future technical college graduates. About 200,000 young people enter the labour market every year. This number is expected to double by the year 2003, and yet only 30,000 to 35,000 new jobs are created in the formal sector annually. (Kafere, Malawi)

The Zimbabwe paper provides one reason for such a situation:

After graduating from technical college, graduates could not get employment because of the mismatch between the supply and demand of labour, stagnating industry, and the lack of entrepreneurship development and demand-driven training. (Raza, Zimbabwe)

The Lesotho paper provides another explanation for the unemployment of manual workers: retrenchment in South Africa. Out of the 300,000 manual workers retrenched between 1989 and 1999, 75,000 were Basotho:

The return of high numbers of unemployed people exacerbates existing socio-economic difficulties. (Kopeka and Waterman, Lesotho)

Most national policy documents have identified these issues and come up with numerous possible solutions. These include:

- The need for trainees to be multi-skilled, flexible and hard-working (work ethics)
- The introduction of re-training programmes (flexibility, diversification)
- Emphasis on entrepreneurship courses; business skills including skills for self-employment, particularly at artisan level (reduce reliance on formal section employment)
- Providing opportunities for lifelong training, which benefits everyone (self-worth and esteem).

8 The Informal Sector

The lack of formal sector employment opportunities has forced individuals in many countries in the sub-region to resort to the informal sector to make a living. This has led to the rapid growth of the sector, which in places represents 60% of urban employment opportunities. Since the mid-1980s, Tanzania's informal sector has become increasingly important in this respect, largely in response to the increasing economic crisis; this is also the situation in Zimbabwe due to ongoing civil service reforms and parastatal sector restructuring. The informal sector is characterised by unregulated small-scale activities where the production process and technological base is rudimentary. Justin Mutasa (Zimbabwe) argues that it has growth potential since it caters mainly for the lower-income group

market, which in Africa represents the bulk of the population. He concludes:

Therefore what is good for the informal sector is good for the economies of African states since the informal sector is now making a significant contribution to the Gross Domestic Product in Africa. (Mutasa, Zimbabwe)

What contribution can TVET make to the informal sector? The Vocational Education and Training Authority (VETA) in Tanzania has adopted a new Competency Based Education and Training (CBET) system whose comprehensive approach enables training to be adapted to the needs of this informal sector labour market: it is modularised to allow trainees to select training units according to the skills needed and also provides non-formal training through packages tailored for selected groups. Another Tanzanian initiative is the Integrated Training for Entrepreneurship Promotion (INTEP) which has a facilitation role:

Here the objective is to create training programmes which target existing operators within the informal sector, with a special focus on gender balance. (Nduguru, United Republic of Tanzania)

There is a logical link between unemployment and the informal sector. If you cannot find a job, create one for yourself. But in order to be able to create one, you need certain skills and support systems. The logistics of training the operators in the sectors needs careful consideration in areas such as timing and place. This latter point is clearly captured in one of the Tanzanian papers, which states:

One of the difficulties experienced by informal sector operators attending training is the inability to set some time aside for training. The level of output and productivity...is so low that they are compelled to work full-time. (Mwanukuzi-Kwayu, United Republic of Tanzania)

Another important issue that has been discussed regarding the training of informal sector operators is whether they should or can contribute to the cost of training. It should be noted that most of these operators are either school dropouts for socio-economic reasons, or were filtered out of the formal system by stringent national selection policies regarding upward mobility in education and training. It can therefore be argued that for access and equity reasons they should not pay for their training. On the other hand, because of resource constraints, and to sustain the training efforts, beneficiaries should be expected to meet part of the cost of training on a cost recovery basis.

The report of the Botswana National Commission on Education stressed the need for a review of all training for the informal sector, taking into consideration constraints on access and training, appropriate modes of

delivery, the training of trainers, cost recovery and cost effectiveness.

While there is a general agreement that the Government has a role to play in supporting the informal sector, we have also heard of incidents where, when they are too successful, government chases the hawkers away!

To summarise: The informal sector in Africa is one of the areas of the fastest economic growth, employs the largest number of workers and creates more new jobs per year than any other sector. Yet it is not taken significantly into account by the TVET system, perhaps because of its informal nature. Nevertheless, the sector has great potential for subregional co-operation and collaboration in areas such as the sharing of materials, experiences and strategies.

9 The Use of Information and Communication Technology in TVET

The Second International Congress on TVE held in Korea last year made several recommendations regarding the role of ICT in TVET but, for the sake of brevity, only three have been extracted from the report to guide participants in this workshop:

- The new information technology has opened up a whole new potential in technology-based learning. It should be possible to use and apply simple as well as modern technology and the new information and communication technologies in the TVET teaching and learning process without losing the valuable aspects of traditional teaching methods, particularly the personal nature of the teacher-learner relationship.
- The new technologies must be harnessed to provide widespread access to TVET. They have the potential to offer flexibility in time and location to TVET delivery, e.g. using distance-education mode.
- Since technology comes at a price, ways must be found through partnerships between government, education, industry and communities, and through regional and international co-operation, to address the high costs involved.

During the 13th Commonwealth Conference of Ministers of Education held here in Gaborone in 1997, Dr David Morris, Vice Principal, Technikon of South Africa, presented a paper entitled *Work-Integrated Education and Training: The Golden Triangle for the 21st Century*. His views were that the debates around the mounting external pressure of global competitiveness and trends by those concerned with education and training, including productivity, reveal an emerging consensus as to the importance of:

- Flexibility
- The rapidly advancing and expanding information and communication technologies
- Partnerships between government, education, business and communities.

He concluded that this consensus could best be expressed as a 'golden triangle', with flexibility, technology and partnership at the points and the teacher and worker at the centre. With regard to TVET, this 'triangle' can be applied to:

- Education and training programmes
- Staff development as part of the changes that are taking place
- Lifelong learning for continuous professional development and personal enrichment
- Community development and life-skills programmes.

Other possibilities of the use of ICT are:

- Establishment of web site for TVET practitioners
- An Internet newsletter for exchanging innovation and training materials.

10 The Implication of HIV/AIDS on TVET

The Impact of HIV/AIDS on Education and Training

HIV/AIDS presents a critical challenge to the viability of education and training system in many countries, especially Sub-Saharan Africa. As the spread of the HIV/AIDS epidemic continues, the potential of the education and training sector to respond to the root causes of vulnerability to HIV/AIDS has increasingly been highlighted.

Preventing HIV/AIDS infection and dealing with the fear and discrimination deriving from the epidemic require careful attention to a range of cultural, social, religious, health, education and training issues as well as the ethical and moral ramification of intentions. HIV/AIDS is inextricably linked to issues that are the heart of education and training: human rights, human resource development, community development, the status of women, discrimination, personal relationships, social responsibility and, obviously, health. To achieve sustained control over HIV/AIDS, a multi-sectoral analysis of its impact is required and an integrated response must be developed. TVET has a crucial role to play in these processes.

Below is a list of some of the impact of the AIDS epidemic:

Impact on the Demand for Education and Training

- Enrolment figures have declined as HIV/AIDS has spread. The overall demand for general education, technical and vocational education and tertiary education has dropped.
- The number of young people dropping out of the education and training sector has increased.
- Pessimism about the value of education and training has spread as parents perceive the early death of the children is likely, and thus are unwilling to spend their limited resources on education and training.
- Gains in gender equity in the education and training sector will be set back for various reasons.
- Disparities in access will grow as the impact of HIV/AIDS increases the number of marginalized young people: orphans, out-of-school and working youth in both formal and informal sector.

Impact on the Supply of Education and Training

- High morbidity and mortality of teachers, tutors, trainers and administrators have severely affected the supply of education and training services in schools and vocational training institutions.
- Teaching time and quality are erratic in the most affected countries as both tutor/teacher and student attendance is irregular due to HIV/AIDS related reasons.

The Impact of the Education and Training Sector on HIV/AIDS

Recent studies with young peoples, i.e. between the ages of 15 and 24 years old, in HIV/AIDS affected countries suggest that countries with high-level general education may have less incidents of HIV. The inclusion of intensive programmes specifically focused on HIV/AIDS prevention and related issues seem to enhance the effectiveness of general education. Can

we conclude that the same could apply to the TVET system whose main target is the 18 to 30 year-olds?

There is ample evidence that HIV/AIDS prevention programmes work with young people. Evaluation has found that school/institution-based and community-based programmes can reduce risks and are effective in making a positive impact on knowledge attitudes and risk behaviour. (*UNAIDS, 1997*)

A word of caution, although exceptions exist, specific HIV/AIDS education components have been generally disappointing in developing countries due to both the over-emphasis on information and lack of skills to link knowledge, attitudes and values. This is mainly due to the lack of adequate policy framework, structures and support services (e.g. training and materials) to ensure consistent and high-quality coverage.

However evidence from some developing countries (e.g. Senegal, Zambia, Uganda and Thailand) suggests that HIV/AIDS prevention content delivery within education and training systems can reduce HIV/AIDS infection levels. (*M. J. Kelly 1999*)

A key objective of an international strategy should be to realize the great potential the education and training system (including TVET) has to serve as a vehicle to help reduce the incidence of HIV/AIDS and alleviate its impact on society; thereby also reducing the very constraints that the epidemic is imposing on the system today. (*Dakar Declaration, 2000*)

11 Conclusion

In conclusion, it should be noted that all the issues and challenges mentioned above are inter-related in various ways. For instance, issues on quality and resources are central to our concerns. However, the impact of HIV/AIDS and the role of ICT in TVET systems are emerging as particular challenges which should be considered across all projects, especially in our deliberations on Access, Quality and Staffing issues.

Opening Speech by the Honourable Minister of Education, Mr K. G. Kgoroba

Director of Ceremonies,

Your Excellencies, Heads of Diplomatic Missions here present,

Representatives of UNESCO and other International Organisation here present,

Representatives of Donor Agencies,

Distinguished Participants,

Ladies and Gentlemen,

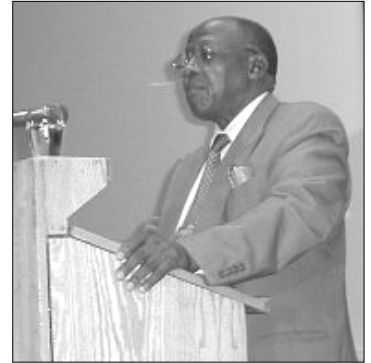
I have just returned from Canada where I joined Ministers of Education from 44 countries of the Commonwealth to discuss the challenges we face in education at the beginning of the 21st century. One of the highlights at this meeting was the statement that “the use of ICT should be actively and systematically promoted through strategic initiatives that link countries, agencies, the private sector, teacher organizations and NGOs in key projects to expand access to education, increase flexibility in delivery and improve on quality, while protecting cultural and linguistic identities. These projects should also serve to bridge the ‘digital divide’ in the Commonwealth.”

Ladies and Gentlemen, against this background, I am delighted to have the opportunity to officially open this workshop and project formulation initiative, which started as a Botswana proposal to hold a subregional workshop, but that, with the support of UNESCO, has progressed to a longer-term subregional initiative for which the workshop is the start-up event. I would like to take this opportunity to thank UNESCO for its financial and professional support and also the German Government which, through UNESCO's International Centre for Technical and Vocational Education and Training in Bonn, has contributed substantially to this event.

The motivation for this initiative was a response to a situation whereby Botswana and most of our countries in the subregion tended to have closer links to Europe than with each other in respect of Technical and Vocational Education and Training, referred to as TVET for short. This resulted in strong north-south links but few south-south links. No doubt there are some interesting projects in our various countries in the subregion through which we could learn from each other.

The integration of our economies in the region is essential and, as these economies become more globalised, the mobility of our trainees and workers must be facilitated, starting at the subregional level. This will not happen without close regional co-operation. In this regard, I am happy to report that SADC has taken the

initiative through a Protocol on Education and Training, which will guide our efforts at the regional level. However, from policy to implementation is a long road, and it is workshops and projects of this nature that can facilitate that process.



The changes that are now taking place in the world economy, coupled with the rapid advances in technology and the communications revolution, are having an enormous effect on the labour market here and the world over and it is predicted that this change will continue. Emerging patterns include high levels of unemployment, retrenchment, frequent job change, the need for multiskilling, the need for lifelong access to education and training, the need for higher education, and increased need for support for small and micro business ventures and informal sector activities. This, in turn, has changed the role of education and training.

As the Government of Botswana, we have tried to develop policies to accommodate these developments. The Revised National Policy of Education (1994) emphasised the need to step up the quality and provision of TVET, while the National Policy on Vocational Education and Training, which was developed in close co-operation with the private sector and industry in Botswana, describes in more detail how this will be done.

In implementing our policies, our professional staff has been working closely with UNESCO and, through this contact, they have been well informed of world trends in TVET. UNESCO's Second International Congress on Technical and Vocational Education held in Seoul, Republic of Korea, last year, was of particular significance, and I believe many of the participating countries here today had the opportunity to attend this Congress. Our delegates found that the challenges facing our region are to a large degree challenges facing TVET worldwide. These include the need to:

- Increase access to TVET and set the scene for life-long learning;
- Ensure TVET of high quality and internationally recognized standards;
- Ensure uniformity in qualifications and transferability of credits;
- Address the problem of unemployment;

- Step up training in and for the informal sector;
- Prepare the teaching staff for these new challenges;
- Integrate and use of information and communication technology in all the above areas;

and the one most urgent for the subregion:

- The need to appreciate and address the HIV/AIDS challenge.

The expectation is that this workshop will come up with project proposals that will consider these very issues. To bring the right people together, the organizers sent out a Call for Papers, the purpose being to select persons as participants for this workshop who not only are knowledgeable in the selected areas but who have ideas for the way forward. Thus, Ladies and Gentlemen, we have amongst us here today a group of about 70 selected experts in TVET, people with a wish to see change, improvement, development, and with the capacity to initiate reform in Southern Africa. 12 out of the 14 SADC countries are represented. We also have colleagues from Europe here to help us link up with the rest of the world.

Ladies and Gentlemen, on behalf of the Government of Botswana and on my own behalf, let me welcome you all to our Beautiful Country and the City of Gaborone, and to this workshop with the hope that it will meet your expectations. You will already have discovered that this is a workshop with a difference. The outcome goes beyond the usual set of recommendations. Instead you are going to produce a number of project proposals in a format such that the projects can be implemented as subregional projects each covering three or more countries. Furthermore the project proposals will be produced in a format such that they can be considered for donor support.

On Friday this week, the last day of the workshop, the donors have been invited to view your output! The ideal output would be that, as a follow-up to this workshop, every country here present would be involved in a subregional project. I wish you all the success in this noble task.

It is opportune for me at this moment to appreciate the contribution of the Donor Agencies to the development of TVET in our various countries. As developing countries with increasing populations and meagre resources, we have had to direct much of our resources into basic or general education while the share for TVET has never been enough. It is in this context that we wish to acknowledge the financial and professional

contribution of the several Donor Agencies who have been working, and continue to work, in the subregion. In Botswana alone, we have benefited from the European Union, and the Governments of Germany, Sweden, Norway, Denmark, Holland, Belgium, Japan, Britain, and the United States of the America, as well as international organizations such as UNDP, ILO, and UNESCO. Speaking for Botswana, I can assure you that without this help we would not have had the capacity and confidence to initiate a workshop of this scope and importance.

Ladies and Gentlemen, our wish to mobilize links between the countries in Southern Africa, coincides with a shift in donor policy. A number of Agencies have informed us that they are now gradually reducing their country support, but are instead focusing on projects that develop the subregion. We hope, therefore, that this workshop can assist these Donor Agencies in identifying projects that could qualify for such support.

We are also aware of the multi-sectoral approach to the donor support. TVET, by its nature, already has very close links with other economic sectors and, as such, lends itself to the multi-sectoral approach, both in developing and implementing programmes. The training sector must work closely with consumers of the products: for example, the tourism sector, the manufacturing sector, the informal sector, and so on. Already, Ministries of Education, Labour and Commerce together with the private sector organizations are natural partners.

Master of Ceremonies, Distinguished Ladies and Gentlemen, we in Southern Africa are part of the global process. We are heading for challenges we have not yet appreciated; challenges linked to the technology revolution. If we want to get out of our state of poverty, we have to harness the technology and 'frog-leap' into the high-tech era. In this respect, we have no choice! My quote from the meeting in Canada was intended to emphasise just that. It is therefore most appropriate and timely that the organizers have chosen ICT as a key presentation for this workshop. I expect that every group during this workshop will make sure that the ICT component features in the solution.

It is now my pleasure to declare this workshop officially open and to wish you all good luck in delivering concrete outcomes in the form of feasible, relevant and sustainable subregional projects.

Pula!

Welcome Address by the Representative of UNESCO, Mr Hans Kröner

Master of Ceremonies,

Your Excellency, Minister of Education of the Republic of Botswana,

Ms Nganunu, Director of the Department of Vocational Education and Training,

Representative of the SADC Secretariat,

Excellencies from the Diplomatic Missions,

Distinguished Experts from the Southern African countries,

Honourable Guests,

On behalf of the Director-General of UNESCO, I would like first and foremost to congratulate the Ministry of Education of the Republic of Botswana on its initiative, and for the excellent preparation of this workshop under the motto “Learning for Life, Work and the Future – Stimulating Reform in Southern Africa through Subregional Co-operation”.

The Role of UNESCO

As you will know, UNESCO held its Second International Congress on Technical and Vocational Education in Seoul, Republic of Korea, in 1999. This congress has come up with new visions. It has emphasized the need for a new relationship between education and training, and for a holistic approach to the preparation for life and for the world of work, while underlining the need for learning throughout life.

Following the Seoul Congress, UNESCO has launched a long-term International Programme on Technical and Vocational Education and Training. An International Centre for Technical and Vocational Education and Training was established three months ago in Bonn, Germany. This underlines UNESCO’s commitment to contribute to human, social and economic development through the promotion of technical and vocational education and training in its Member States.

During the past seven years, Africa has been the focus of a number of initiatives within UNESCO’s International Project on Technical and Vocational Education (UNEVOC). The International Centre for Technical and Vocational Education and Training in Bonn is expected to foster UNESCO’s action in this area, and to provide a platform for closer co-operation with international governmental organizations with an interest in that field. The current initiative “Learning for Life, Work and the Future: Stimulating Reform in Southern Africa through Subregional Co-operation” is a tangible expression of that effort.

Learning for Life, Work and the Future

Our motto, “Learning for Life, Work and the Future”, indicates that we will be dealing with learning in a broad context.

This motto stands for pro-active learning, which means that its content as well as its delivery methods have to be future-oriented. The knowledge and skills that we will need tomorrow must be developed today.



Subregional Co-operation

The Southern African region is fully exposed to worldwide trends of globalization, new technologies, and new forms of work organization. In addition, the cultural and political heritages as well as the need for socio-economic development provide unique environments that citizens and political leaders in each of your countries are facing.

It is my belief that, in spite of all that diversity, a number of challenges remain common concerns for most of your countries, and that it is worth identifying starting points for joint approaches and common solutions. The existing diversity of environments and approaches should not be looked upon as a barrier, but rather as a rich resource, as a valuable basis for cross-fertilization, and as a challenge to make intelligent use of existing options, ideas, solutions and innovations in technical and vocational education and training.

The International Centre for Technical and Vocational Education and Training

Excellencies,

Ladies and Gentlemen,

The initiative “Learning for Life, Work and the Future” is the first major activity of UNESCO’s newly established International Centre for Technical and Vocational Education and Training in Bonn. As a matter of fact, we started our first planning session with Ms Nganunu on 12 July 2000, in the evening of the very day on which the Director-General of UNESCO, Mr Matsuura, and the German Federal Minister for Education and Science, Ms Bulmahn, signed the Host Country Agreement for the Centre in Bonn.

The new International Centre for Technical and Vocational Education and Training is UNESCO’s focal point and hub for the worldwide UNEVOC Network. The UNEVOC Network now links more than 200

leading institutions in technical and vocational education and training in 138 Member States of UNESCO. The Department of Vocational Education and Training in Botswana, as you can see, is a particularly active one. In addition, for many years, Ms Nganunu has served as Chairperson of the UNEVOC International Advisory Committee. Incidentally, another most active network partner, the UNEVOC Centre of Canada, has asked me to announce a new initiative “Learning to Learn”, which I will happily do later this week.

UNESCO’s joint sponsorship of the initiative “Learning for Life, Work and the Future” is a visible expression of our commitment to promote subregional co-operation in technical and vocational education and training, with the ultimate objective of serving the needs of citizens in the Southern African region.

Acknowledgements

My colleagues and myself at the International Centre for Technical and Vocational Education and Training in Bonn, which is the partner of the Government of Botswana in this initiative, were particularly pleased to collaborate closely with the Director the Department of Vocational Education and Training. It has been highly stimulating to work with her for the last few months, and to benefit from her professional leadership. We have had the privilege to work with Mr Kewagamang at the UNESCO Centre in Bonn for several weeks, but we also know that my colleague Ms Mitschke, who has promoted this initiative so effectively, cannot be with us this week. I wish to express my sincere gratitude to

all those who, through their dedicated work, have made it possible to launch this initiative within a very short period of time.

I wish to thank all of the participants who have responded to the Call for Papers, and contributed to the rich documentation that will enhance our work in the course of the week. My thanks go likewise to Mr Swartland for the excellent Main Working Document that he has prepared.

We are grateful to the Ministry of Education of Botswana as well as to the German Federal Ministry for Economic Co-operation and Development, who have contributed substantial resources to this workshop.

Last but not least, I wish to convey to you the warmest regards of the Director of UNESCO’s Office in Dakar, Mr Parsuramen, whose responsibility is the development of Education in Africa. He has expressed his keen interest in the results of this workshop, and he is looking forward to supporting follow-up action that will emerge from this workshop.

Final Remarks

I wish all of you a stimulating and productive workshop that is expected to come up with new initiatives for co-operation among your countries in technical and vocational education and training, and that will hopefully have a positive impact on human resource development in all of your countries.

Ke itumetse bomma le borra. Pula!

Project Proposals

1 Enhancing Access to Effective TVET

Project Summary

1. Introduction

This project highlights key barriers to accessing Technical Vocational Education and Training (TVET) and identifies interventions to address such barriers.

2. Rationale

Access into TVET is important because:

- Globalisation, and the development of knowledge and skills-based economies, has increased the demand for workers who are flexible, able to work in a team and communicate effectively
- High unemployment requires that systems are in place to produce self-employed entrepreneurs, which in turn will provide opportunities for job seekers
- SADC's increasing role in the international community demands that TVET in the region has to keep pace and respond to the requirements of a global economy
- The issue of access to TVET has been identified by SADC as one of the key problems to be addressed in the region

3. Analysis of the Actual Situation

To date, no comprehensive analysis of access to TVET in the SADC region exists. As a result, a focus group involving representatives from eight countries within SADC suggested the following current barriers:

- Disadvantaged sectors of society
- Language
- Attitudes towards TVET
- Mismatch between the curriculum, its certification and the world of work
- Lack of student support
- Quality and quantity of teachers
- Methodology of policy development and implementation
- Current selection procedures
- Lack of funding
- The extent to which TVET contributes to socio-economic systems

- The small number of institutions available for TVET
- Poor management
- Decreased employment in the formal sector
- Educational qualifications for entry and exit.

4. Definition of Access: the Focus of the Proposal

The working group proposed a definition of access to TVET to include the following four aspects:

- Entry barriers
- Institutional barriers
- Exit barriers
- Barriers at the systematic level.

5. Problem Areas

A number of problem areas have been identified which function as barriers to TVET:

- Exclusion of specific sectors of society
- Current low participation in TVET
- Limited number of training facilities
- Lack of student support
- Quality of education and training at TVET institutions
- Mismatch between curricula provided in TVET and lack of jobs in the formal sector
- Negative attitudes towards TVET
- Low budget allocation to TVET
- Poor management structures which exclude industry and other relevant stakeholders
- Lack of access policies.

6. Components of the Proposal

- Develop policy frameworks for access to TVET
- Develop and improve access to loans/grants
- Create regional centres of excellence
- Develop strategies for increasing the relevance of TVET and its responsiveness to the needs of stakeholders
- Develop a knowledge base for access to TVET
- Develop appropriate and relevant curricula.

2 Improving the Quality of TVET

The group initiated two project proposals:

1. Quality Assurance in TVET

Project Summary

Title:

Reliability of TVET programmes in the SADC region.

Objective:

To establish quality guarantee mechanisms for the reliability of TVET standards up to technician level within the SADC region.

Short description:

This project intends to provide participating countries with the opportunity to measure the quality of programmes for Technical and Vocational Education and Training against guidelines that are given in a SADC Quality Control Blueprint. A "Bureau of TVET Standards" will have to be established to

monitor the reliability of the programmes in the region.

2. TVET Teacher Training

Project summary

Title:

Developing quality pedagogical training for TVET teachers/instructors in the SADC region.

Objective:

To develop standards, quality curricula and resources for the pedagogical training of TVET teachers that can be ADAPTED or ADOPTED by individual countries in the SADC region.

Short description:

Based on existing programmes in the various countries, the partner countries in this project intend to develop standards, curriculum modules and curricular resources for TVET teacher training in the SADC region.

3 Strengthening TVET Teacher Education in Selected SADC Member States

Project Summary

1. Introduction

There is a close relationship between the quality of the teacher/support staff and the TVET programmes. This is why it is necessary to strengthen the capacity of both the teacher and the support staff in Technical and Vocational Education and Training (TVET). Furthermore, a situation analysis of the education system in the subregion indicates that:

- TVET systems are affected by insufficient staff (both teachers and support staff), and by the presence of incompetent and ineffective teachers and support staff. Where ICT exists it is grossly under-utilised. This is due to the fact that either staff are not qualified enough to meet the changing demands of new technologies and the dynamic societal environments, or do not realise the full potential of ICT in teaching and learning. Staff who are qualified often leave the profession in search of better prospects within the country or abroad
- Prospective teachers and potential candidates find it difficult to access existing institutions because such institutions have inadequate facilities
- The impact of HIV/AIDS on staff is further eroding the existing limited number of teachers and support staff. Staff mobility and relatively low income

expose them to the dangers of disease and HIV/AIDS.

2. Project Objectives

The project is intended to:

- Strengthen Technical and Vocational Teacher Education and support staff training
- Standardise ICT systems and education to support and relate to teacher and support staff training
- Reduce the incidence of HIV/AIDS among staff in TVET through HIV/AIDS education in pre-service and in-service programmes.

These objectives can only be achieved with the help of recipient governments that can contribute to the project by providing a secretary, co-ordinator, office, office furniture, some trainers, and transport where possible.

3. Project Outcomes

- Competent, confident and effective teachers and support staff
- Gender balanced and adequate numbers of staff in place
- Adequate, relevant and up-to-date training facilities in TVET institutions of the subregion
- Reduction in new HIV/AIDS infections and a better quality of life amongst staff in TVET.

4. Main Activities

To improve the quality of health and staff competence, and to reduce staff turnover amongst the teacher/support staff in TVET, the project will:

- Provide in-service education for the existing workforce to cover HIV/AIDS (methodologies, life skills, counselling), ICT, multimedia and new learning methodologies
- Promote and facilitate staff exchange within the region
- Increase the existing workforce through recruitment of new teachers and support staff in existing and emerging skills areas, paying particular attention to gender balances
- Encourage and facilitate enterprise education in TVET with the intention of reducing staff turnover.

4 Information and Communication Technologies in TVET

Project Summary

1. Introduction

The group deliberated on the role played by Information and Communication Technologies (ICT) in improving the technical and vocational education and training in the SADC region. It was noted that the countries in the region were at different stages of development and use of ICT in education and training. The similarities related mainly to the alienating effect of ICT, emphasis given to ICT matters and the areas of application of ICT, whereas the dissimilarities were mainly in the manner in which ICT was introduced, its accessibility, target groups and the availability of technical support services.

2. Areas of Change

It was agreed that the following areas need change to integrate ICT into TVET:

- Accessibility and availability of ICT infrastructure (bandwidth, hardware, software and competency-based modular courses)
- Skilled manpower in ICT and support services
- Software development suited to regional and socio-cultural need
- Curriculum at all levels (primary, secondary, senior secondary, university) to have an element of ICT
- Awareness of how ICT can help to achieve a better quality of life.

3. Aims and Objectives of the Project – Promotion and Development of ICT in the SADC Region

To create an educated and skilled society that will support economic development, alleviate poverty, and sustain employment by facilitating the imparting of TVET in all parts of the region through:

- Institutional infrastructure (connectivity)
- Accessibility and availability of equipment for resource/learning centres

- Training in E-learning (of curriculum developers, trainers, support staff, material production specialists)
- Development of curriculum
- Production of learning/instructional materials.

4. Outcomes

- Awareness: students, youth, workers and community members to become familiar with ICT and the use of the Internet
- Infrastructure: regional network, resource/learning centres and fully-equipped training rooms to be made available
- Trained personnel: staff to become ICT-literate (50%), trained support staff to be made available
- Materials: competency-based teacher training and ICT modules to be ready and ICT learning materials available.

5. Activities

- Promote ICT in schools
- Create regional web-page on TVET to exchange materials
- Provide resource rooms
- Create regional network to connect trainers to trainers
- Train personnel in ICT and support services
- Identify and adopt best practices in developing competency-based modules
- Develop modules for TVET for E-learning
- Develop in-service programme for technical support staff
- Offer out-of-school computer literacy programmes
- Organise regional (SADC) conferences for ICT resource development.

The group also resolved that the following could take a lead role in the matters detailed below for development of ICT in the region:

Botswana:

The Quality Assessment and Assurance Board could co-ordinate the development of standards for the region.

Mauritius:

The National Computer Board (Mauritius) could co-

ordinate the development of E-learning materials for ICT.

Seychelles:

The Ministry of Education could co-ordinate the training of curriculum developers for a competency-based training modular curriculum.

Swaziland:

The University of Swaziland could co-ordinate the training of curriculum developers for E-learning.

5 Unemployment and Training for the Informal Sector

Project Summary

1. Introduction

TVET providers in the SADC region acknowledge a link between the unemployment situation and the informal sector in Member States. They recognise that the informal sector absorbs the majority of the unemployed and provides an avenue for poverty alleviation and the development of an indigenous private sector.

An examination of the current situation reveals that Member States share several features with regard to unemployment and the informal sector. These features include, inter alia, inadequate access to funding for self-employment and for training of the informal sector; inadequate access to appropriate training and to information relevant to persons in the informal sector; inadequate enterprise/marketable skills; lack of recognition of informal sector experience; increase in crime, commercial sex and the incidence of HIV/AIDS; exploitation of the current training needs situation by dubious private sector training operators.

An overall policy for informal sector training among Member States is recommended. The following interventions are proposed as bases for collaboration between TVET providers in the region:

- The provision of integrated training
- The improvement of access to funding and financing
- The improvement of access to TVET programmes
- The provision of business development services.

2. Aims and Objectives of the Project

The overall aim of the project is to provide quality and accessible training and other support services to the informal sector in order to provide gainful employment, job creation and poverty eradication/reduction.

This is to be achieved by:

- Providing integrated training which focuses on the needs of informal sector target groups
- Developing a policy position for governments to provide funding and financing for the informal sector
- Establishing and strengthening savings and credit societies that provide funding and financing for the informal sector
- Establishing business development services for the informal sector to cater for marketing, information, training and consultancy needs
- Providing flexible TVET systems and programmes to increase access by the informal sector.

3. Outcomes

The project will result in the following:

- Informal sector target groups and their training needs will be clearly identified
- Demand-driven curricula and programmes will be developed
- Competent trainers and training facilities will be made available
- The integration of the traditional apprenticeship system and formal training will be achieved
- An assessment and certification system to cater for training of the informal sector will be developed
- Partnerships will be created between governments and relevant stakeholders
- Government commitment to providing funding and financing will be ensured
- Savings and credit societies providing funding and financing for the informal sector will be identified and established
- Business Development Centres and market support systems will be established

- The accessibility and decentralisation of TVET systems and programmes for the informal sector will be ensured.

4. Required inputs

It is envisioned that the project will require human resources, relevant technical expertise, financial resources, infrastructure and information.

6 Accreditation and Certification of TVET

Project Summary

1. Introduction

To allow student mobility across the SADC region and to encourage lifelong learning, it is necessary that the qualifications in each Member State be clearly understood by the stakeholders in every other Member State.

A National Qualifications Framework (NQF) will provide a means for simplifying, structuring, classifying and valuing the many existing qualifications and awards from all areas of education and training within each Member State. A Regional QF will provide the same quality in information and analysis for the qualifications across all SADC Member States.

The development of a SADC Credit Accumulation and Transfer Scheme (CATS) will increase student mobility and access to further and higher learning by providing a credit value for all learning undertaken.

Work has already begun on this development activity, but only with external funding support can the full objectives be met and all necessary outcomes achieved.

2. Aims and Objectives of the Project

To create an educated and skilled society that will support economic development, alleviate poverty and enhance inward investment through the development of a SADC Region Qualifications Framework for lifelong learning and employability through the development of:

- A Regional Qualifications Framework (RQF);
- A Credit Accumulation and Transfer Scheme (CATS)
- Regional standards
- An education database and training

- An improved image and status of TVET.

3. Outcomes

- A RQF integrating education and training at all levels
- Well-developed regional qualifications standards
- Availability of lifelong-learning opportunities across SADC
- Transferability and portability of qualifications and credits
- Enhanced image and parity of esteem for VET
- Regional education and training database allowing access to relevant information for all stakeholders.

4. Activities

- Production by TA of concept paper on nature, form and process of RQF
- Establishment of TVET Task Team
- Collection of data for comparative analysis
- TA research on CATS/articulation outside SADC
- Dissemination within SADC of information gathered
- Comparative analysis of qualifications
- Establish regional standards
- Implement the RQF
- Set up mechanisms/processes to establish NQFs in each SADC Member State
- Lobby/advocate the importance of TVET
- Disseminate information to all stakeholders.

Participants' Papers

Based on the Call for Papers below, more than 40 papers were submitted by experts from participating countries. Summaries of 27 of these papers are presented from pages 33 to 86.

Call for Papers

This Call for Discussion Papers was prepared jointly by the Ministry of Education of Botswana and UNESCO's International Centre for Technical and Vocational Education and Training.

Background Information

The Ministry of Education of Botswana (Gaborone) and UNESCO – through its newly established International Centre for Technical and Vocational Education and Training (Bonn, Germany) – have developed an initiative entitled “Learning for Life, Work and the Future: Stimulating Reform in Southern Africa through Subregional Co-operation”.

This initiative will be launched officially at a workshop under the same title that is expected to be held in Gaborone, Botswana, most likely from 5 to 8 December 2000. The main objective of the workshop is to stimulate regional co-operation for the reform of technical and vocational education and training (TVET) in the 14 Member States of the Southern African Development Community (SADC¹). It is estimated that between 60 and 80 TVET experts from the SADC Member States, from intergovernmental and non-governmental organizations as well as from donor and other agencies will participate.

The workshop will be prepared by a Steering Committee composed of staff of the Ministry of Education of Botswana and UNESCO's International Centre for Technical and Vocational Education and Training.

TVET experts from the SADC Member States are invited to contribute to the preparation of the workshop by submitting Discussion Papers. The Discussion Papers will be taken into account when selecting experts that will be invited to the workshop by the Steering Committee.

Experts are invited to submit one or two Discussion Papers on the key topics listed below. These topics have been identified as relevant to TVET reform in several countries of the SADC subregion. Experts will be contacted through various channels, e.g. the Ministries of Education, the UNEVOC Centres, National Commissions of UNESCO, etc. Experts who have been contacted are also invited to pass on this Call for Papers to interested colleagues. Furthermore,

the Call for Papers will also be available on the Internet at <http://www.unevoc.de/Botswana>.

The submitted Discussion Papers will be reviewed by the Steering Committee with the help of an internationally renowned external evaluator. Selected Discussion Papers may be used as reference documents at the workshop, they may be published on the Internet website of the project, and they may also be used for any other project document or report.

Based on the review of the papers, the Steering Committee will decide whom to invite for participation at the workshop. For some of these participants, the Steering Committee will provide return travel to Gaborone and subsistence throughout the workshop.

Criteria for Participation

Participants at the workshop will be invited based on the evaluation of their submitted Discussion Paper(s). When taking a decision on invitations to the workshop, the Steering Committee will consider the following criteria:

- The participants will be TVET practitioners from the SADC region
- The papers must address a key topic (see below)
- Papers will be evaluated based on quality, how well the challenges of the region are addressed and their potential ideas for subregional projects
- The Steering Committee will also consider other criteria, such as geographical balance, gender balance, a mix of younger and of senior professionals, the balance of key topics and the institutional representation.

No fee will be paid for accepted papers. However, a number of invited participants will qualify for UNESCO sponsorship covering travel, subsistence and all conference costs.

Basic Principles

- A paper should focus on one of the Key Topics listed below
- The length of each paper should be 1200-1600 words

¹ The SADC Member States are currently: Angola, Botswana, the Democratic Republic of the Congo, Lesotho, Malawi, Mauritius, Mozambique, Namibia, Seychelles, South Africa, Swaziland, the United Republic of Tanzania, Zambia and Zimbabwe.

- Only a maximum of two papers per author will be accepted
- Papers should be submitted in English only as this will be the working language of the workshop
- Discussion Paper(s) should be accompanied by the technical information requested in the Annex. There, authors can also state if they have reservations against having their papers published, or if they are not interested in attending the workshop

but would have no objection to having their papers published

- All authors of papers will be informed about whether they will be invited to the workshop.

Content

Each paper should focus on one of the following Key Topics:

Key Topic	Examples of Key Aspects	Possible Sub-Themes for Paper
Access to TVET	<ul style="list-style-type: none"> • Equipment/infrastructure • Facilities for deliver • Access and equal opportunities • Not enough supply of TVET programmes • Appropriateness of TVET programmes (target groups, local needs). 	<ul style="list-style-type: none"> • Innovative use of facilities and equipment • Cost-effective solutions for design, construction and use of facilities • Equal opportunities policies and practice • Range and flexibility of programmes to suit all target groups • How the relevance of programmes to the local economy is ensured.
Unemployment	<ul style="list-style-type: none"> • Youth unemployment • Limited job opportunities in formal sector • Training for sustainable (self-) employment • Retrenchment. 	<ul style="list-style-type: none"> • TVET programmes to help school leavers • How skills for self-employment can be developed • Entrepreneurship courses, content, value, etc • Multi-skilling and transferable skills • Re-training programmes for unemployed adults.
Training in and for the informal sector	<ul style="list-style-type: none"> • Attitude to self-employment • Frequent bankruptcy • Recognition of training in the informal sector • Quality difficult to measure • Formal training opportunities for those in self-employment. 	<ul style="list-style-type: none"> • Support for informal sector training (financial, professional, logistic, government schemes, etc) • Logistics of training for those self-employed (time, place...) • Identification of training needs and course development • Impact/ evaluation of training for informal sector groups • Recognition and accreditation of prior learning.
Quality of TVET	<ul style="list-style-type: none"> • Curricula for lifelong learning • Human resources that can compete in a globalised world • Transferable skills • Appropriateness of TVET curricula and programmes to local economy. 	<ul style="list-style-type: none"> • Curriculum projects for lifelong learning • Flexible modes of learning (modules, distance, ICT and multimedia, etc) • Training and updating of skills for teachers/ lecturers/ instructors • Experiences with multi-skilling and transferable skills • Introduction of key-skills/ core/skills • Involvement of stakeholders in curriculum development and delivery; partnerships • Ways of ensuring curricula and delivery meet global standards.
Information and Communications Technology (ICT)	<ul style="list-style-type: none"> • Provision of ICT skills • IT based learning • ICT infrastructure • Access to Internet and Intranets. 	<ul style="list-style-type: none"> • Effective training approaches • Projects for ICT-based learning • Role and use of ICT in TVET • Distance education and ICT • Innovative solutions to the hardware cost problem.
Staff	<ul style="list-style-type: none"> • Quantity and quality of teachers • Staff trained to offer IT skills. 	<ul style="list-style-type: none"> • Innovations in technical teacher training • Ensuring an on-going learning programme • Use of ICT and multimedia in technical teacher training • Preparing teaching staff for various ICT initiatives in TVET • Teaching as a second career.

Key Topic	Examples of Key Aspects	Possible Sub-Themes for Paper
TVET System, recognition and accreditation of qualifications	<ul style="list-style-type: none"> • Fragmented education systems • Transparency of qualifications • Articulation • Accreditation of programmes and institutions • Recognition of skills obtained through informal training. 	<ul style="list-style-type: none"> • Development of local programmes and qualifications • Initiatives towards national qualifications frameworks • Steps towards articulation/ portability of credits in the subregion • Project to incorporate recognition and accreditation of prior learning.
External Relations	<ul style="list-style-type: none"> • Country involvement in project planning for donor support • Co-ordination between donors and country • Compatibility of donor support for TVET in Southern Africa. 	<ul style="list-style-type: none"> • Role of donors • Examples of successful subregional approaches • Strength and weaknesses of a multi-donor approach • Benefits of sector-wide approaches.
The implications of HIV/AIDS on TVET	<ul style="list-style-type: none"> • Loss of young teachers • Shortage of teaching staff • Cost of teacher training • Dealing with absenteeism • TVET access for AIDS orphans • Adequate inclusion of HIV/AIDS prevention in curricula. 	<ul style="list-style-type: none"> • HIV/AIDS awareness and behavioural change – successful approaches • Ways to attract teaching staff and opportunities available for staff within the TVET system • Cost sharing within TVET • Ways to ensure accessibility of technical and vocational education for AIDS orphans • Counselling initiatives for those affected • Co-ordinated team-efforts by teachers and health workers, curriculum developers and national HIV/AIDS co-ordinators.

A paper could, for instance, consist of:

An analysis of the situation, including

- Past and current reforms/developments
- Current needs for improvements
- Strengths and weaknesses of the country's response to the challenges
- Potential areas of collaboration within the subregion
- Benefits and risks of a Southern African regional approach to tackle the problem

and, where appropriate,

- Past and current international/donor support in the given field
- Donors that are/have been active in the country (in the given field)
- Successes and failures of such projects
- Areas of multi-donor support
- Areas of sector-wide donor support.

Submission of Discussion Papers

Discussion Papers should arrive no later than 7 November 2000 at one of the addresses mentioned

below together with the completed annex. Kindly label the submission: UNESCO/Gaborone Workshop: Learning For Life, Work And The Future. These documents should be submitted by mail or courier (with diskette), fax or (preferably) e-mail.

The Steering Committee might consider covering the cost of mailing or courier charges.

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1 DEURWAARDER, Jan and VAN MAARSEVEEN, Cees (Botswana): Modern Technology in Vocational Teacher Training

1. Abstract

This paper aims at underlining the importance of using modern technology in education in general and in teacher training in particular. The relation between the use of technology and its potential to realise more engaged forms of learning are illustrated. The focus of the paper is on the beneficial impact of the use of interactive videos (CD-ROMs) in teacher training. The absence of video material specifically designed for teacher training in the southern African region, as well as the disadvantages of the use of 'foreign' videos, are highlighted. It is proposed, with appropriate expert assistance, to produce interactive video material in order to strengthen the training of teachers as a 'decision-making' process. The production of such materials should be linked to the enhancement of the local /regional capacity to produce high quality educational video materials within the specific local cultural and educational setting.

The paper further links the 'video project' to the need to provide in-service and distance education to teachers, especially in the vocational areas.

2. Introduction

The National Commission on Education (1993) p.19, the National Development Plan 7, (1992 - 1997) and the National Development Plan 8 (1997 - 2002) emphasize three issues:

- The increasing impact of modern technology on society
- The need to prepare learners for modern technological society
- The shortage of well-trained teachers to assist learners in becoming critical, well-informed, participating citizens of such a society.

3. Technology in Education

There is still a low level, or in some cases a near absence, of use of modern technology in the education system in general and in the teacher training colleges in particular. In order to induce learners in a technologically rich society, their learning environment should be equally rich with technology. The potential of technology, if appropriately used, to enhance learning and achievement is well documented (Lewis and Blanksby, 1988). However, the relation between the use of modern technologies and forms of more engaged, active learning is not automatic, and the manner in which the technologies are integrated into the curricula needs careful planning. Given the

explosive technological innovations that have taken place in most fields of human activity over the past decade, it is very likely that appropriate use of these technologies in education and training could significantly improve the teaching/learning process.

There are a number of reasons for the low level of use of modern technology in education:

Availability

The absence of technologies for teaching and learning in schools

Accessibility

In many institutions technology is not easily accessible by teachers (and learners). If resources are available, it frequently requires major planning/booking to bring them into the classroom/workplace.

Lack of technologically skilled teachers

The majority of teachers are not adequately trained and supported for integrating modern technology into the day-to-day instruction of their subjects.

Maintenance

Technical support and maintenance of equipment is a major problem.

The alienating effect of the use of 'foreign' videos

There are few software/video/film resources that are specifically designed for the southern African region. The different cultural and educational settings seem to block transferability of otherwise relevant information.

Technology has not been integrated into the curriculum

The opportunities to enhance learning using modern technology in the various subjects at all levels of the education system have not yet been fully embraced.

A first step towards improving the situation is to equip student teachers during pre-service, and teachers during in-service, with knowledge and skills for the appropriate use of modern technology in the classroom/workshop. This requires:

- A learning environment that uses modern technology.
- Hands-on experience in the use of modern technology.
- Full integration of modern technology in the pre-service teacher training course.

4. Effectiveness of Technology

There is in the research literature a strong consensus that technology and technology-enhanced programmes can promote forms of more engaged and active learning. However, the selection of the type of technology and its use is critical. Jones et al (1995) mentioned six indicators for high-technology performance in education:

- Accessibility of the technology: the technologies and resources must be accessible to staff and learners, both within the classrooms and beyond the school
- Operability of the technology: ease with which the technology operates, i.e. the technical set-up of the system
- Organisation of the technology in terms of its location and distribution
- 'Engagability', or the capacity of the technology to engage students in challenging learning
- Ease of use: user-friendliness; fast, effective help; etc.
- Functionality, or the technology's capacity to prepare students to use a variety of technological tools.

5. Email in Teacher Training

Email by itself is a low-performance technology because its sole function is communication. But email as a tool in teacher training can give student teachers access to rich learning experiences, such as communicating with tutors or mentors, consulting experts and producing collaborative project work.

6. Videos in Vocational Teacher Training

Videos are an effective medium for professional development (Mateff) when used in an interactive way that promotes discussion. The traditional use of videos, whereby the technology is seen as a replacement for or supplementation of the teacher, can be qualified as low technology and results in most cases in passive forms of learning. However, the very same technology can be used to create a much greater involvement of the learner in the learning process.

Effective use of video material requires interactive viewing: stopping for reflection, discussion or practice of what has just been viewed. The actual practice of a skill just viewed should be as close as possible to the actual viewing and therefore requires careful planning.

7. Need for (Regional) Video Production

Given government's commitment to enhance the quality of education, funds should be made available for the 'hardware' side of creating modern techno-

logical classroom environments. The 'software' – i.e. video production appropriate for teacher training in the region – is more of a problem. This is not only a financial but also a human resource issue. A combined team consisting of video production experts and teacher training facilitators would be needed. To make such an enterprise worthwhile, a regional approach is to be preferred over a local endeavour. Expert advice and support from outside the region might be needed, but should be related to capacity building in the region for educational video production.

CTVE proposes that a project to produce videos for teacher training is started in the region and funds are found for such a project.

Although the above concentrates on the use of videos in the training of teachers, a similar need for good instructional video material exists at the Technical Colleges when offering the Botswana Technical Education Programme (BTEP).

8. Interactive Videos (CD-ROMs)

Videos as described above, both interactive and promoting discussion, are extremely useful tools in the training of teachers when viewed in a group. However, they have one specific weakness. Teaching is a decision-making activity. Teachers take decisions continuously during the facilitating of the learning of their students. Modern technology allows the production of interactive videos (tape or disk): a decision is required and the viewer/s is/are asked to take it. Based on the choice, the video continues. One can now go back to the decision point and view what would have happened if another decision had been taken.

Interactive multimedia allows the learner to interact with the information provided through the computer. For teacher training, face-to-face or distance, this is a powerful learning tool. Interactive multimedia resources are also extremely useful for vocational education as they allow learners to gain experience through simulations of situations that would normally be inaccessible to them because of safety factors, security factors or costs. It has been established that the appropriate use of interactive multimedia resources reduces the time needed for training to the order of 30%-60% (Hosie, 1993).

Looking at the effectiveness of professional-quality resources to enhance learning, the advantages mentioned above and the vision for education for the (near) future, these resources should be developed. The development should be on a regional basis and – like the proposed video production – involve training of technicians and producers in the southern African region. External financial and expert support is needed to develop interactive multimedia resources.

CTVE proposes that a project to produce interactive videos for teacher training is started in the region and funds are found for such a project.

9. Distance Education and Technology

In the learning process, two types of interactivity occur (Bates, 1991). There is the interaction between learner and the learning resources (individual interaction), and the interaction between the learner and the facilitator of the learning (social interaction). During the learning process, the learner spends most time on individual interaction, interacting with the learning resources. For effective learning both individual and social interaction are needed. Until recently, distance education has not been able effectively to include the social interaction mode. However, in electronic form, distance education is a high-performance technology with great potential to realise more engaged and active forms of learning. The strength of multimedia distance education is that it has developed materials to enhance the quality of interaction between the learner and the learning resources. Now modern technology provides opportunities for social interaction to support learning effectively: audio teleconferencing, video conferencing (using interactive multi-media [IMM] mode) and computer-mediated communication (CMC). These technologies allow two-way communication between learner and facilitator.

CTVE proposes that a project to produce IMM/CMC materials for teacher training by distance education mode is started in the region and funds are found for such a project.

10. Conclusion

Technology alone is not sufficient to bring about the much-needed improvement in the quality of teaching at

all levels of the education system. However, the power and sophistication of available technologies can be exploited to provide quality teacher training education at pre-service and in-service level. Learning to use technology effectively is difficult: many of us are hardly aware of its potential; it is time-consuming, carries a substantial price ticket and requires multi-disciplinary teams of specialists. However, if we are committed to creating a high-quality education system for committed and well-informed citizens of the new millennium, it is necessary to provide high-quality learning/teaching environments. The issues raised are not just local ones: educators in the region (Namibia and South Africa for example) are exploring similar ideas. A regional approach would therefore be most appropriate.

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2 DE PLOOY, Gerrit (South Africa): External Evaluation of Academic Support and Administrative Functions

1. Introduction

Three cycles of external programme evaluation at the technikons have almost been completed using a now well-developed system. Aspects of institutional audits have also been conducted, and examinations administration, resource center services, research capacities and experiential learning have twice been evaluated at all technikons. It is imperative that external teams evaluate the remaining functions. The bureaus and institutes conducting academic support functions come to mind: for example, with regard to staff development, student career and psychological guidance and curriculum development. The general administration and

financial services at technikons should be included in this process, and evaluation processes must be developed. With the exception of community instruction in short courses, this will conclude the external quality monitoring functions at technikons. A complete system of external quality monitoring will therefore be available to hand over to the HEQC (Higher Education Quality Council) when appropriate.

Some technikons have taken initiatives in developing the internal quality assurance processes for support services. Such initiatives could form the basis for a national system that might effectively be utilized by SERTEC in its final rounds of quality monitoring.

2. Curriculum Development

Two major changes have impacted on curriculum development at the technikons. The shift in emphasis to outcomes-based education has had a large impact on curriculum development, resulting in technikons nationally co-ordinating programme outcomes rather than programme content. This implies that individual technikons must have the capacity to develop curriculum content internally to allow students the opportunity to attain the expected outcomes. There are reasons to believe that all technikons do not necessarily have that capacity.

The SERTEC requirement that internal quality assurance must be externally evaluated has prompted the development of such internal quality assurance at most technikons. External monitoring would be a comparable trigger for the development of internal curriculum development capacity that has now become necessary, and questionnaires and processes must be developed for such monitoring. Initiatives by some technikons in this regard could be encouraged in order to speed up the process of developing such external evaluation.

In some technikons, curriculum development units have been established. The intention is to externally monitor the efficient functioning of such units, including the role of advisory committees and other stakeholders across the spectrum. Curriculum development units can at best co-ordinate and facilitate subject-specific curriculum development. The co-operation between such units and academic departments must be promoted.

3. Staff Development

Internal staff development cannot rely wholly on staff studying towards higher qualifications at the same or a different institution. It must also take place through internal short courses, the attendance of conferences and seminars, and advancement in educational theory and methodology. Many academic departments take the initiative of promoting staff development within their departments, and staff development units have been established in some technikons, generally making a major contribution. Good co-ordination between such staff development units and academic departments must be established where it does not already exist.

4. Institutional Management and Administration

Some technikons have expressed the wish that institutional administration be subjected to external quality monitoring. This could include the monitoring of management and financial functions. The intention would not be to play the role of external watchdog, but

rather to promote internal quality assurance processes with regard to management and administration.

Financial audits are often regarded as the only necessary external activity in financial administration. However, although these attend to the correctness of accounting procedures they do not necessarily ensure financial effectiveness and efficiency in administration. Institutional management and administration should therefore include all three aspects of financial conduct. These functions fall mostly under the remit of the Rector and the Registrar, and would clearly be a sensitive area for external quality monitoring.

5. Student Career Guidance and Psychological Support Services

With the changes in student demography, the support students receive from the technikons in career guidance and psychological support is becoming increasingly important. Such services need to be professionally conducted, and some technikons have established units for this purpose. External quality monitoring of those services would complete the full cycle of quality assurance at the technikons.

6. Generic Process and Questionnaires

As is the case with most other SERTEC processes and questionnaires, an attempt should be made to develop, with the co-operation of the CTP, the necessary generic processes and questionnaires for the conduct of external quality monitoring of the above academic and administrative support services. Other similar services not mentioned above must be included, and the Council of SERTEC might consider co-operating with the CTP in the development of these processes.

7. Recommendations

It is recommended that:

- Academic support services and administration be included in the external quality monitoring by SERTEC;
- The initiatives taken by some technikons be co-ordinated for the development of the necessary processes to avoid 'reinventing the wheel';
- The design of the above processes be referred to the CTP to develop in co-operation with SERTEC;
- The matter be finalized expediently to ensure the conduct of such external evaluations before the end of 2002. In this way, a complete package of quality assurance could be handed over to the HEQC in 2003. Such a package would satisfy the requirements of the Higher Education Act, i.e. quality promotion, institutional audit, and programme assessment and accreditation.

3 DUBOIS, Paul Roland (Mauritius): National Qualifications Framework for Mauritius

1. Background

One of the many problems currently affecting Mauritius is that of unemployment. Official sources point to a figure of 40,000 people unemployed, that is 8% of the labour force. Add to this the additional 15,000 job seekers coming onto the labour market every year, and a chaotic situation is certainly looming ahead.

There are many possible reasons for this economic decline:

- Lack of industrial investment
- Shortage of competent manpower in targeted disciplines
- Mismatch between available jobs and training
- Lack of lifelong learning and re-skilling.

It is acknowledged that in order to help Mauritius attract direct foreign investment and concurrently ensure its capacity to be more productive, innovative and competitive, there should be available at any point in time a Mauritian workforce that is skilled, knowledgeable, competent, flexible and always re-skilling and/or upgrading itself. As a result, lifelong employability for all Mauritians could be not just a dream but a reality.

The world environment is undergoing rapid change. One of these changes is the dawning of the information age at an unprecedented rate of transformation. Mauritius must follow suit in this new technology-dependent economy and invest heavily in training to produce highly qualified engineers, technicians and IT Professionals in sufficient numbers. The new government is laying great emphasis on three major sectors certain to create thousands of jobs: namely, the IT sector, the hotel and hospitality sector, and the financial services sector.

One unavoidable outcome of this net economy is structural unemployment. Some jobs will disappear; others will inevitably require different skills and knowledge. People must therefore be able to move from one job to another and, consequently, opportunities and facilities for re-skilling and lifelong learning must be available.

Technology is also affecting the way in which technical and vocational training is delivered. Innovative and flexible technology-based delivery systems are gradually being introduced. In years to come, students and employees will be able to access training in the workplace, home and training centres. Technology will play an important role in increasing access to training.

2. Salient Features of the Present Education and Training System

The mainstream education system is a 6+5+2 system, in which six years of primary education are followed by five of secondary, leading to the School Certificate/GCE "O" level. Students who read for the HSC/GCE "A" level spend two more years in secondary school. Out of an annual intake of some 31,000 students entering primary education only 17% complete the system with "A" level qualifications, and only another 4% end up with a university degree.

Apart from the University of Mauritius, the following other institutions offer training in various disciplines and at different levels, depending upon their capacity:

- The State Secondary Schools, Vocational (SSSV) cater for Certificate of Primary Education (CPE) drop-outs
- The Institut Supérieur de Technologie at Camp Leveux offers two-year courses for HSC holders leading to BTS
- The Lycée Polytechnique at Flacq offers training leading to BT for School Certificate Holders
- The Swami Dayanand Institute of Management at Pamplemousses offers two-year diplomas in IT and information systems, banking and financial services, marketing, accounts and finance and business informatics. Their examinations are moderated by the State Informatics Training Centre.
- The State Informatics Training Centre (SITRAC), earmarked to be one of the schools of the University of Technology, Mauritius (UTM)
- The IVTB, the leading organisation in the field of technical and vocational training. Since 1998 it also offers training courses leading to the Higher National Diploma (HND) awarded by either SQA or Edexcel.
- Private training centres, of which there are currently 147, offering training in fields such as information technology, management, engineering, beauty care and hairdressing, office skills etc.
- Once fully operational, the University of Technology, Mauritius, will absorb both the MIPAM and the SITRAC, which will become two schools of the University.
- The labour force is of the order of 515,000. The actual capacity of in-service training in Mauritius certainly does not exceed 40,000. This limited

capacity is even more significant in the light of the need for continuous lifelong training.

3. Shortcomings

Many limitations are inherent in our training system, besides the absolute necessity to revisit our basic education to make it more in line with the requirements of a lifelong learning culture:

- The education system is too academic, and prepares students for higher and higher levels of education
- The education system is very inefficient at all levels. Only 4% of a primary school intake of about 31,000 ends up with a degree.
- There are about 30 British, French and Mauritian certification systems operating side by side in Mauritius, which leads to much confusion. The problem of equivalence is difficult to sort out as different awarding bodies issue their own certificates. In addition, many private training centres deliver their own certificates, which compounds the problem. Such compartmentalisation can only lead to inflexibility, confusion and a waste of resources. The quality of the private training centres is also questionable, and people following courses in private training centres are not guaranteed value for money. Problems of regional as well as international recognition of our certificates do arise. This constitutes a major problem, especially if Mauritius is aiming at becoming regional.
- The TVET system is not well integrated, with no pathway established between products of the IVTB centres, the Lycée Polytechnique and the University of Mauritius.
- There is no recognition of prior learning within the existing system. Skills and knowledge acquired as a result of informal training, work experience as well as life experience are not acknowledged or recognised.
- More emphasis is laid on the processes leading to achievement (teaching and learning) than on the qualifications (recognition of achievement).
- The actual system does not provide for lifelong learning and is therefore not sufficiently stimulating.

4. The National Qualifications Framework

It is agreed that investment in development skills and knowledge, whether by individuals, companies or governments, is critical. Students and employers need a way of measuring the skills and knowledge that their investment has achieved. The qualifications are therefore expected to give information about an individual's achievements that is more comprehensive, accurate and specific than before.

So qualifications need to:

- Be credible and useful to employers
- Be readily understood by the public
- Give students every opportunity to advance their learning towards the qualifications they want, throughout their lives
- Be recognised internationally.

The National Qualifications Framework is the Mauritian Government's answer to these needs. Its overall objective is to ensure that all qualifications awarded in Mauritius convey to students and employers a value that is clear and credible.

In addition, the establishment of such a framework in Mauritius would rationalise the existing certification systems and contribute towards ensuring that qualifications provided:

- Meet a minimum benchmark for quality
- Are relevant to the needs of industry and the wider community
- Give clear information about the skills, knowledge and capabilities of the incumbent
- Facilitate comparability and mutual recognition between countries
- Provide opportunities for progression to higher-level jobs and academic courses
- Foster lifelong learning
- Are competency-based rather than process-based
- Provide recognition of prior learning and experience through accreditation
- Provide parity of esteem
- Facilitate flexible pathways between different learning environments such as schools, training centres, industries and higher education institutions.

In this way, everybody would have a learning credit account to build on. Opportunities would be available for constant human resource development and for people to upgrade their qualifications at their own rate. The only resources Mauritius has are human, and the NQF would help to bring to the country a human resource bank operating at its full potential. This is what Mauritius needs to beat world competition.

An implementation report is already available, prepared by the Scottish Qualifications Authority and submitted in January 1999. Prior to the submission of the report, consultation was undertaken with a wide range of stakeholders, including senior policy-makers, employer representatives, private training providers as well as companies.

However, since this implies a major paradigm shift, and in view of the over-arching and wide-reaching nature of the proposed reforms, it is recommended that there should be further consultation with Ministries and public sector bodies on the recommendations contained in the report.

5. Conclusion

A steering committee has been established to monitor the whole process, with follow-up consultations where needed.

Countries throughout the world, such as Scotland, England, Australia, New Zealand, South Africa and Namibia, have in place a national qualifications framework. The Second International Congress on

Technical and Vocational Education, organised by UNESCO and held in the Republic of Korea in 1999, gave due importance to a NQF. In fact, it was one of the main recommendations of the Congress.

It is strongly felt that the experience of countries that have made good progress in setting up their National Qualifications Framework should be sought. This subregional workshop could be an important forum for exchange of views and experience.

Eventually a regional qualifications framework for the SADC countries could be considered. In fact, the SADC Technical Committee on Certification and Accreditation advocates the harmonisation and standardisation of education and training systems in the region.

4 DURANGO, Lewis (Zimbabwe): The Development of an Occupational Standards Framework in Zimbabwe – Experiences and Preliminary Conclusions

1. Introduction

Discussions on the development and establishment of a national occupational standards framework in Zimbabwe were formally initiated through the proposals and recommendations of the October 1997 report on the evaluation of the results and progress of the joint MoHET¹ and GTZ NVTD Programme. These discussions took place at multi-stakeholder workshops in 1997 and 1998, where ZOISS was adopted as one of the projects in the Programme. The other projects in the MoHET and GTZ joint co-operation are:

- ISTARN
- Organisational Development
- Commercialisation and Decentralisation

The ZOISS project represents an innovative attempt to develop an occupational standards framework based on the real demands of the labour market, with the active participation of all key stakeholders. Its flexible and demand-driven phased development is designed to integrate efficiently with existing and emerging national qualifications frameworks and private and public sector education and training programmes. It promotes regional and international networking on the CBET concept, encouraging the sharing of experiences, concepts, procedures, practices and resources among projects in the region, in Africa and internationally so as to maximise efficiency and output. Finally, its provision of high-quality technical services and products is intended to facilitate the development of

national and regional standards-based education and training frameworks.

2. Background and Rationale

Purpose of ZOISS

- Development of a multi-stakeholder and industry-driven organisational, management, administrative and technical framework for the development of occupational standards.
- Facilitation of effective partnership and collaborative decision-making between government, business and industry in the development of occupational standards and their utilisation in the development of curricula, training programmes, examinations, assessment and certification standards, in order to enhance the link and co-ordination between training delivery and employment.
- Development of ZOISS as a national, regional and international centre of excellence on DACUM, and the development and implementation of curricula, training programmes, assessment and certification instruments and systems based on DACUM.
- The establishment and promotion of regional and international networks on DACUM and CBET.
- Provision of technical services and products on a consultancy basis to recover some costs.

Project Strategy

Based on this project background and rationale, ZOISS was formally established as a two-year project (May 1999 to May 2001) to develop, pilot and recommend concepts, procedures, structures and systems for the

1 Acronyms and abbreviations are explained at the end of this paper (page 42).

achievement of the project aim as outlined under 'Purpose of ZOSS' above.

Experiences, Problems and Achievements

Since its inception in May 1999, ZOSS has developed and piloted structures, systems, concepts and procedures on the development of occupational standards and their utilisation. The experiences, problems and achievements have provided the project with information and expertise which are invaluable to other countries in the region that have already commenced, or intend to commence, developing and implementing standards-based and competency-based education and training.

ZOSS is willing and committed to the sharing of its experiences, products, procedures and technical expertise with all countries in the region.

Project Policy, Organisation and Management

ZOSS was efficiently initiated using interim existing statutory industry-government policy and organisational structures and systems. The implementation of the ZOSS pilot project was delegated to NAMACO by MoHET, and the joint MoHET-NAMACO meeting became the policy-making body. The use of this existing policy and organisational decision-making framework provided the opportunity for the gradual, pragmatic, cost-effective and flexible development and emergence of permanent policy, organisational, conceptual and technical structures, systems and procedures. The development of the infrastructure, systems and procedures required to develop and implement this occupational standards framework can only be done effectively and efficiently if it is based on pragmatic and meaningful experiences rather than on theoretical dispensation.

NAMACO further delegated the management of the project to a multi-stakeholder task team consisting of representatives of the following key stakeholders at executive and decision-making levels:

- EMCOZ
- CZI
- MoHET
- Ministry of Labour
- Ministry of Education, Sports and Culture
- ZNCC
- ZCTU
- NAMACO
- Private training providers
- Public training providers

- National, regional and international high-level personalities.

The project is co-sponsored by ZIMDEF and GTZ. All members of the task team are nominated by their constituencies, thereby enhancing stakeholder participation, buy-in and the transparency of all discussions and decision-making. ZOSS is now in the process of recommending the establishment of permanent organisational structures based on the practical experiences of the pilot project.

The utilisation of existing structures and the gradual demand-driven development of permanent structures based on a piloted and tested working concept is a cost-effective organisational development strategy. In many countries elaborate, expensive and inefficient organisational structures are established before the development of a pragmatic working concept. This has resulted in the common so-called "white elephant" syndrome. Adequate piloting and testing of concepts and procedures provides the practical experience and expertise required to develop and establish appropriate and responsive policy, organisation and management structures and systems.

Regional and International Networks

The national networking discussed above is complemented by the establishment and development of regional and international linkages and networks; these facilitate the development of concepts, procedures, products, structures and systems of the highest international standards in order to meet the ZOSS vision of becoming the regional centre of excellence on the development and utilisation of occupational standards using DACUM. The GTZ NVTD Programme has provided the project with the required technical assistance and support through the financing and provision of high-quality consultancy services. This support includes:

- Provision of long-term technical advisory and consultancy services through INBAS, a German consultant company with wide and varied experience, and exposure to DACUM, CBET, and education, training and labour market research and development.
- Provision of short-term consultancy services by SQA through a memorandum of understanding signed between MoHET, GTZ, NAMACO and SQA.
- Provision of local consultancy and other support services.
- Facilitation and financing of regional and international visits/workshops, exposure and networking.

The project has further enhanced its international networks through the recent conclusion of discussions and consultations on the provision of technical support by CIDA and ACCC through Bow Valley College (Canada) on a project-by-project basis. This new Canadian connection avails ZOSS of the vast experience of Canada with DACUM, and of Canadian expertise in the use of DACUM in education and training and the labour market.

ZOSS initiated and facilitated the first regional workshop on the sharing of experience in the introduction of CBET. Ten countries from the Southern and East African regions as well as Ethiopia participated in this workshop, conducted in Dar es Salaam, Tanzania, in August 2000. This represented an historic initiation of regional networking on CBET, and resulted in the adoption of resolutions on the continued sharing of experiences, expertise and resources by all participating countries.

Following the Dar es Salaam workshop, various regional networks and linkages have been implemented and planned. These include the following:

- The initial training of DACUM facilitators in Uganda, which was co-facilitated by Lewis Durango and Alpheas Shindi, both from ZOSS.
- Regional training workshops on the use of DACUM in occupational competency testing and certification, scheduled to be conducted in Swaziland in November 2000, and in Zimbabwe during the first quarter of 2001.
- Present discussions between Malawi and Zimbabwe on the possibility of Malawi adapting and utilising the occupational standards or profiles developed by Zimbabwe.

All these initiatives and experiences demonstrate the capacity and commitment of ZOSS to be an active player in regional co-operation in education and training in general, and standards-based education and training in particular.

3. Design of Concepts and Procedures for the Development of Occupational Standards

In consultation with all key stakeholders of the Zimbabwe education and training system, ZOSS has adopted DACUM as the basic methodology for the conduct of occupational/job analysis, and for the development of curricula, training programmes, and testing and certification instruments and systems which are based on the real requirements of the labour market. DACUM was selected because of its relative low cost and pragmatism compared to other industry-based occupational/job analysis methodologies.

ZOSS has trained a pool of facilitators for DACUM two- to three-day occupational analysis workshops,

which involve the brainstorming of a panel of experts on the qualitative requirements of their occupation. The national pool of about twenty DACUM facilitators has been trained to the required international standards of competence. Three DACUM facilitator training programmes were conducted: by the Turkish Occupational Standards Project; by Dr John Collum under licence from the Centre of Education and Training for Employment, USA; and by two DACUM training consultants based in South Africa, on behalf of the Canadian Vocational Association.

The three training programmes have provided ZOSS with the required capacity and local expertise for the development and local adaptation of procedures for the development of occupational profiles. Forty-two occupational profiles, stored in a user-friendly database, have been developed as part of an emerging framework. With a total full-time staff complement of only five people supplemented by the local pool of freelance DACUM facilitators, ZOSS has the capacity to generate about one hundred profiles per year in addition to other assignments.

4. Establishment of Linkages with Curriculum and Programme Development

ZOSS has identified and developed linkages with public and private sector organisations/institutions to facilitate the development and piloting of procedures on the development of competency-based curricula and training programmes based on DACUM. The pilot projects are:

- The School of Mines, Bulawayo, which is a regional centre of excellence in training for the mining industry.
- The School of Hospitality and Tourism, Bulawayo, which also provides annual intake quotas to accommodate trainees from the region.
- Delta Engineering Training Centre, which uses DACUM for the analysis of company-specific occupations and the development of company-specific in-house training programmes.
- Mupfure Vocational Training Centre.
- CRADU in MoHET.

ZOSS provides technical support services to the pilot projects, which own and are responsible for their curriculum development procedures and products.

The selected piloting of standards-based programmes and curriculum development will provide the required practical experience for valid decision-making on the national adoption of CBET.

5. Establishment of Linkages with Trade Testing

The reform of the Zimbabwe system of trade testing has been identified as the focal pilot project in the use

of DACUM occupational profiles for the development of a demand-driven, market-oriented system of occupational competence assessment and certification. The trade testing system provides an open and accessible way of assessing, recognising, accrediting and certifying job competence at different levels. It represents the only available opportunity of integrating and recognising competencies acquired in the informal sector.

The link with trade testing is designed to facilitate the following:

- Review of testing instruments and procedures based on occupational profiles in order to enhance their validity in the labour market
- Re-organisation of the trade testing system in order to open it up to more occupations and candidates.

6. Conclusion

The innovative experiences involved in the development of ZOISS concepts, procedures, products and services are invaluable to other countries in the region that have already embarked or intend to embark on

CBET. ZOISS is a post-modern learning organisation which is committed to sharing experiences, expertise and resources within the framework of regional integration on the introduction of CBET, with particular emphasis on the development and implementation of standards-based education and training based on DACUM.

Abbreviations and Acronyms

ACCC	Association of Canadian Community Colleges
CBET	Competency-Based Education and Training
CIDA	Canadian International Development Agency
CZI	Confederation of Zimbabwe Industries
DACUM	Developing a Curriculum
EMCOZ	Employers Confederation of Zimbabwe
GTZ	German Agency for Technical Co-operation
MoHET	Ministry of Higher Education and Technology
NAMACO	National Manpower Advisory Council
NVTD	National Vocational Training and Development
SQA	Scottish Qualifications Authority
ZCTU	Zimbabwe Congress of Trade Unions
ZIMDEF	Zimbabwe Manpower Development Fund
ZNCC	Zimbabwe National Chamber of Commerce
ZOISS	Zimbabwe Occupational Standards Services

5 FODRAINE, Anthony (Botswana): Quality of TVET

1. Introduction

The need for quality in Technical and Vocational Education is in principle no different from the need for quality in education in general. However, in this particular paper we want to focus on Technical Education, and we shall see that the yardstick for measuring the quality is different in each type of education.

In this introduction, we shall try to give a sharper description of quality when used in relation to technical education.

When we compare education with an industrial process, the students¹ that enter the process can be compared with the raw material, and those that are delivered at the end can be compared with the finished product. The product may be of a high quality, getting a very positive reception in the professional periodicals, but it may not sell. The quality of a product is not enough: it must also fit the market. What is considered to be quality education in Kazakhstan is not necessarily quality education on the Fiji Islands. We therefore need to define quality in TVET as the manner in which a society is willing and able to absorb the graduates of the technical education system.

2. Modes of Learning

2.1 Outcomes-based learning

The traditional way of learning is still practised in thousands of technical schools all over the world. Students sit in the classroom, listen to the lecturer, make notes, and prepare themselves for examinations. In the workshops they all make the same work-piece, and all have to be ready before the end of the month. Marking is either on a sliding scale or in percentages, where the pass mark is usually 50%. But as soon as the student walks into his first job, he is told that the work he does should be 100% correct. The outcome of his work is either right or wrong.

Another form of learning is the outcomes-based system. The student knows exactly what is expected of him, what is the range of the work, and what the tolerances are.

In technical education, this system has been introduced with varying degrees of success. It is not successful when the standards that are used to measure the performance of the students are not clearly defined, or are too high. It is impossible to expect a novice to do a job as well as a craftsman with ten years' experience.

The system can be successful when the standards for the work, also called the criteria, are adapted to the level of learning. It should also allow for an individual approach, in which the student is given the chance to

¹ In this paper, when the male form is used, the female form should always apply as well

master a skill at his own pace, of course, within a reasonable time. The tests that are presented to the student should not ask for more or less than is stated in the standards.

2.2 Distance education

Distance does not need to be a problem when good use is made of information technology. It is possible to use the primary school in a village for distance education: it needs only two or three motivated people and a simple network to connect a classroom to a technical college elsewhere in the country. Technical colleges, with all their resources, should be able to be used as distance education centres. The courses presented through such a medium cannot be too specialised but could deal with simple technical problems and solutions, with safety in and around the house, with the conservation and use of energy, with hygiene, and so on. Internet or intranet facilities could also be used to distribute information to interested students in remote towns and villages. The chat-room is a good example of a way for people to communicate directly with each other. In the case of distance education, a number of people could be connected to one teacher through chat lines.

3. The Curriculum

3.1 The programme of learning

We all accept the fact that a curriculum, a programme of learning, is needed for acquiring skills and knowledge in whatever discipline. We must however realise that there are no two people who have exactly the same job, or do things exactly the same way. We only have to take our car to two different workshops, or visit two different physicians, and we will get two different opinions about the problems with our vehicle or the ailment that we suffer.

Learning is a process of exercising, and the exercises we do are intended to make us ready for life and work. The exercises someone else does will most probably be different from ours, but they have the same goal. In a high quality learning environment the two sets of exercises will have equal importance.

When we relate the above argument to the curriculum, we might propose that "the curriculum should prepare the student for a number of the problems he is expected to meet." We cannot attempt to prepare the student for all these problems: many of them, from welding a gate to finding the last nuclear element, are solved through experience and not through education.

It is most important that the curriculum has a logical structure. In most disciplines the modularised approach can be used. You don't learn all skills and theory at once: you progress from simple to more complicated in a logical sequence.

Earlier in this paper we compared education with an industrial process. The curriculum stands for the production stages that transform the raw material into the finished product. These should be carried out in the most efficient way and with proper planning. There is, however, a major difference between an industrial process and a curriculum. The product of a factory is not a stakeholder in its own shape and destiny. In education, we do not only have to satisfy the market, but also the student. We must try to find the most efficient way of preparing a student for the world of work.

3.2 Stakeholders

When we prepare a curriculum for technical education, we cannot do so in isolation. Think of the genius who made the product that nobody bought. As in any market, technical education has to be sold. This can be achieved by involving the customers in the design of the curriculum. In this case we do not mean through research by an outside consultant, who produces a report that disappears in a drawer, but rather through the actual involvement of the future employers of the technical students. It will take some persuasion to get the employers together: time is money, and every hour spent in workshops and seminars seems like an hour lost in earning money. They should, however, realise that only they know what skills they expect from their employees, and the time spent in workshops should be considered as an investment in the future.

Again, education does not serve the future employers alone: first and foremost it serves the student. But we should be reasonably sure that the programme will be acceptable for the world of work.

3.3 Practical learning versus theory

In technical education practical skills and underpinning knowledge (the theoretical background) are both important: the challenge is to find the correct balance between the two – the "How you should do it" should be complemented by the "Why we do it that way". Why do we hold the hammer like this? Why should the temperature of the food be kept at this level? Why is it important to be polite to the customer?

The ratio between practice and theory depends very much on the level and discipline of the educational field, but any technical programme that does not have a minimum of 50% practical exercises is not worth its name.

In some apprenticeship systems, the practical training is left completely to the employer. This may be unsuccessful when the employer does not have the facilities to cover the whole curriculum.

3.4 Key skills

There are two aspects to technical education. One is the purely mechanical one: filing, drilling, measuring an electronic circuit, setting a lady's hair and sewing a dress can all be learned by exercise and repetition. The other aspect is that of key skills. Those are the skills that every person needs to master in order to be successful in life and work. The use of modern information technology, numbers, communication, interpersonal skills and knowledge of the market place (entrepreneurial studies) all have to be integrated into the learning programme.

When talking to future employers, one often hears the complaint that the students may be good craftsmen but they are unfit for the position because they do not behave according to the rules, arrive late for work, don't know how to communicate with customers and don't report on their activities correctly. Through the key skills programme, the students should learn how to become valuable people for business and industry.

4. Lifelong Learning

Learning does not stop at the graduation ceremony. Technical Education should always be ready to provide courses for workers who have to catch up with rapidly-changing technology. Such courses could be prepared on the initiative of the learning institutions, or be initiated by professional bodies.

When a national Tourism Board discovers new areas of interest for potential tourists, it could approach the national TVET Department with the request to prepare

a module on that subject. The module could become part of the full-time learning programme, but since it is stand-alone, it could also be given as a separate course, taught in the evening and/or by distance education.

Workers who want to improve their value in the market could follow courses that are related to their function. For instance, the lady who works behind the counter in a shop for vehicle parts could take a "Front Desk" course: an IT course on how to work with the database on the computer, and a course to learn to identify different car parts.

5. Conclusion

The quality of Technical and Vocational Education can be greatly improved when the following measures are taken:

- The mode of learning should take the individuality of the student into account
- Learning should be outcomes-based
- The curriculum should have a logical structure
- The prospective employers should be involved in preparing the curricula
- A good balance needs to be found between practical exercises and theory
- Generic or key skills need to be integrated in the programmes
- Facilities should be made available for working people to improve their skills.

6 KAFERE, Godfrey (Malawi): Learning for Life, Work and the Future – The TVET System

1. Background

Since the birth of multi-party democracy in 1994, the Malawi Government set itself a number of major goals: respect for and promotion of human rights, poverty alleviation, human resource development and employment generation. One of the main challenges facing Malawi today is the problem of unemployment among its future technical college graduates. Rural-urban migration is on the increase as gainful employment in agriculture becomes scarcer for the fast-growing labour force. By 1998 the formal sector had a workforce of 760,000, of whom some 160,000 were in public service employment and 600,000 in the formal private sector. Additionally, about 200,000 young people enter the labour market every year and this number is expected to double until 2003. Currently, only 30,000 to 35,000 new jobs are created in the formal sector annually; the

rest of the people are unemployed. However, these statistics include university graduates and those who have been trained at technical and vocational institutions. Unemployment is an undignified social status that should not be allowed in any country. Fortunately, self-employment is proving to be a viable alternative in Malawi.

The mission of the Ministry of Labour and Vocational Training (MoVT) is to execute government social and labour policy through administration and technical vocational education and training. The main objectives include:

- to promote and maintain optimum social justice and peace through the formulation, review and implementation of dynamic labour and employment policies and strategies that contribute to the country's economic growth, national competitive-

ness and general improvement in the standard of living of the people and their quality of life; and

- to provide sound technical, vocational and entrepreneurial training to Malawian youths in an attempt to prepare them for wage employment in industry and/or self-employment in rural and semi-urban areas of the country; and to develop them intellectually, socially, physically and spiritually.

2. Strengths and Weaknesses of Malawi's Response to the Challenges

The strengths lie in the initiative of the Ministry to formulate the following educational policies intended to tackle the problem of unemployment among future graduates. In line with National Vision 2020, and in consultation with major stakeholders in technical, entrepreneurial and vocational education and training, the Ministry started a process early in 1997 of revising the existing technical education system, devising strategies and plans for its reform and preparing a revised Training Act. By June 1997 a task force was established to carry out the detailed work. This culminated in the formulation of a TEVET policy that was officially launched in January 1999. Thereafter, the preparation of a strategic document for the implementation of the policy began and the TEVET Act was passed by Parliament in February 1999 and became operational on 1 July 1999.

The mission of TEVET is to contribute to personal development and respond to labour market demands by providing technical, entrepreneurial and vocational education and training, thereby increasing productivity and the production of better quality goods, using environmentally-appropriate technology, instilling a spirit and culture of entrepreneurship regarding both wage and self-employment, and finally alleviating poverty. The TEVET Authority is in place and began its operations in 1999. It is currently engaged in a number of pilot projects in community-based training and other areas. The Authority, however, considers that there is still need for further efforts in areas such as:

- Financing training, making better use of existing resources and diversifying the resource base
- Assessing the scope for integrating formal and informal skills development programmes
- Devising a system, within the framework of the overall reform of the labour market information system, for monitoring labour market trends and training needs
- Applying the International Labour Organisation's Community-Based Training Approach to promote training for non-farm employment in rural areas, in order to equip people with much-needed skills to improve their income-earning capacities.

The other initiative was the creation of the Malawi Entrepreneurs Development Institute (MEDI). Its mission is to be the centre of excellence in the delivery of entrepreneurship development programmes and business consulting in Malawi, for the purpose of employment creation in the micro, small and medium enterprises sector. MEDI's development objective is to create employment for a large part of the labour force which is without either formal wage employment or significant access to cultivatable land, particularly in the rural areas where the need for sources of income is destined to increase as small land-holding diminishes. It has two operational objectives:

- To design and deliver entrepreneurship training programmes to assist both aspiring as well as practising entrepreneurs in setting up or expanding their businesses;
- To assist MEDI graduates in acquiring seed capital, through loans, to enable them to set up or expand their businesses.

The weakness in Malawi's situation lies in the fact that it suffers from poor co-ordination between the institutions that formulate and implement employment and labour market policies. This is due to the lack of an employment policy, assessment capacity, participatory mechanisms to facilitate discussion between producers and users of labour market information and, finally, inadequate financial and trained human resources.

3. Solutions

The Ministry of Labour and Vocational Training is also working towards expanding the scope of technical and vocational education by incorporating short courses and other subjects that are not in the Technical Education Curriculum. It is also working with TEVETA in revising the current curriculum so that it responds to the changing technologies in industry. In this connection, the Ministry is looking at ways of restructuring its staff development programmes to ensure that members of staff are exposed to advanced training, whether locally or abroad.

4. Potential Areas for Collaboration in the Region

SADC as a region needs to forge ahead in many areas in order to meet the challenges of globalisation of the economy. Some areas where Member States could collaborate are:

- Improving technical and vocational teacher education;
- Curriculum development;
- Research and development; and
- Formation of a clearing-house for the region.

5. Summary

The Malawi Government attaches great importance to education and training for employment. Consequently, the Ministry of Labour and Vocational Training is determined to fulfil its objectives through developing and ensuring an adequate supply of the skilled manpower necessary for national development through technical and vocational training and the provision of trades testing services. Whereas our past education planners were happy to educate clerks for employment in the public sector, among its broad objectives and through TEVET, this Ministry is determined to promote an integrated, demand-driven, competency-based modular technical education and training system.

On the other hand, the Ministry of Labour and Vocational Training understands that human resource development and training benefits individual men and women by developing and maintaining their employability and adaptability in labour markets that change continuously under the influence of globalization,

technological change and new ways of organizing work. While education and initial training provide the fundamental employability requirements of individuals, continuous training and lifelong learning give them the means to maintain it over their working lives.

Human resource development and training improves their prospects of finding and retaining a job; it improves their productivity at work, their income-earning capacity and their living standards; and it widens their career choices and opportunities. By developing the capabilities of workers to pursue collective and individual interests, education and training foster an environment that is conducive to economic and political democracy. They are tools for developing the new social skills, competencies and attitudes, and the tolerance and solidarity needed for economic, social and political participation in an increasing integrated and mobile world. Finally, education and training are indispensable to enable individuals to thrive in a society driven by knowledge, communications and technology.

7 KAMANGA, Andrew Bonani (Botswana): Youth Unemployment

1. Introduction

Youth unemployment is an area of great concern to many governments in the Southern African Development Community (SADC). The rates of economic growth in the respective countries are not sustainable enough to match the ever-increasing numbers of young people graduating from the high schools, technical and vocational colleges.

There is therefore the need for a wide range of technical and vocational educational training with a greater focus on self-employment, entrepreneurship and exploration of potential new sectors of employment.

There have not been any reliable statistics published on the unemployment situation within SADC. However, it is generally accepted that there is chronic youth unemployment in all the SADC member states, with all the psychosocial and economic consequences that this entails.

2. Limited Job Opportunities in the Informal Sector

Due to the increasing calls for reduction in public sector expenditure by many governments, employment in this area is becoming more precarious than ever. The situation in the subregion is further compounded by the fact that there is very little foreign direct investment (FDI) to kick-start other economic activities that generate employment in the formal sector for both public and private set-ups.

The sport, recreation, leisure and fitness industry has become a multi-billion dollar business all over the world, generating millions of jobs in both the formal and non-formal sector.

Despite great potential in Africa as a whole, and particularly in the southern Africa region, there are very few benefits accruing to the young people of the region in this lucrative sector.

There is need for a comprehensive technical and vocational education programme to address the chronic shortage of skilled personnel in the delivery of sport, recreation, leisure and fitness services.

At present, sport education and training programmes are haphazard. They are left to the discretion of the relevant national sports associations. There is no standardization of sport coaching and administration training.

There are some physical education and sport programmes at various colleges, universities and technikons (especially in South Africa). These are usually tailor-made for producing graduates for schools and sports associations. The unavailability of Institutes of Sport or Sports Academies means that professionalisation and career development is affected. In some cases, interested individuals have to go abroad for training in specialized areas.

3. Possible Areas of Training and Employment

3.1 Aerobics instructor/fitness consultant

This kind of work requires an individual to have basic training in Physical Education at Certificate/Diploma level and Exercise Science/Physiology. Such an individual can then specialise in aerobics or weight training and be employable either in private gyms or in the public sector with the uniformed forces (the army, police and prison services). Nowadays more and more business executives are turning to gyms to relieve job-related stress after work through exercise and fitness training. Practitioners can also build and own gyms as private businesses. Even modern hotels are realising more and more the need to have sports, recreation and fitness facilities on site for customers.

3.2 Combat sports/martial arts specialisation

The army, police, prisons and private security organisations need physically fit people who are able to handle not only arms and ammunition but also fighting without weapons. In this context, practical skills and training in combat sports and martial arts are necessary. Useful areas of training are karate, taekwon-do, judo and wrestling. People with these skills could find employment by providing services in these areas.

3.3 Private/Personalised coaching

As more and more people are earning a living through their sports performances, there is an increasing demand for personal and private coaches and trainers. Good examples are in athletics, boxing and tennis, where professional circuits have been established worldwide. Qualified experts in these areas can be employed in private coaching agencies.

3.4 Sports facilities management and maintenance

The sports facilities that are being constructed nowadays are becoming increasingly sophisticated. The capital investment in sport facilities means that qualified people are needed to manage and maintain them effectively. Good examples are the maintenance of natural and synthetic grass surfaces, swimming pools, sports equipment, buildings, and the landscapes

of sports facilities. There is therefore a need for properly trained and qualified superintendents and technical staff in sports facilities development, management and maintenance.

4. Standardisation and Accreditation

In order for the employees in the sport, recreation, fitness and leisure industry to be recognised and have credibility, there is a need for standardisation of training. This will ensure that the practitioners are properly accredited and there is uniformity in the qualifications that are required, especially in the SADC region.

The establishment of sport, recreation, fitness and leisure disciplines within TVET will accelerate professionalization and career development. It will also enable practitioners to harness and master the new technologies, especially Information Communications and Technology (ICT), applicable to their work.

5. Conclusion

Due to rising unemployment amongst school leavers, it is imperative that a reassessment of TVET is undertaken. Such a review would enable TVET authorities in the various SADC countries to examine other possible areas of service delivery in line with globalization and changing societal interests.

The sport, recreation, fitness and leisure industry has not been fully exploited in SADC in terms of its ability to contribute meaningfully to the alleviation of unemployment and poverty amongst young people. The potential of the sport, recreation, fitness and leisure industry cannot be fully exploited for employment and income generation without a well-designed TVET programme in place.

The full development of this industry can also foster the adoption of active and healthy lifestyles by the economically productive age group (15 to 60 years) in most SADC countries. This will contribute towards reduction of absenteeism due to ill health, thereby enhancing productivity at the work place. In short, the sport, recreation, leisure and fitness industry can contribute to the improvement of the quality of life for most people in the SADC region.

8 KISENGA, Norbert and FRANKLAND, Peter (Botswana): Training and Professional Development of TVE Teachers and Managers

1. Introduction

The authors' concern for the design and quality of vocational teacher training and education derives from their collective experiences in Africa, Asia and Europe, and most especially from extensive discussions with

people in the field in Botswana over the past eighteen months. Much of the design of its new vocational teacher training curriculum to date has been informed by ideas newly applied to the practices of teacher education in Botswana, but familiar to those working in vocational and higher education. The Botswana

Ministry of Education has given support and encouragement to these locally innovative ideas, which have driven the evolution and developments in the planned provision for TVE staff development.

2. Vocational Teachers

Providing an effective system and high quality provision for the professional training and development of TVE teachers (and managers) can be problematic unless the distinct nature of those teachers, trainers and managers, and their professional working context, is understood and recognised. Not only is initial training required, but also opportunities for continuing professional development to support the changing context of vocational education.

The entrants, as well as the experienced practitioners of vocational teaching, are mature, already qualified with a national certificate (minimum) in some vocational area, and have relevant vocational work experience and attitudes that are generally positive towards professional learning. Serving teachers and managers come from a range of teaching and training organisations: technical colleges, brigades, industrial training organisations, professional training institutions, private vocational institutes, health services, government training organisations, and so on.

3. TVE Sectors – the Setting for the Work of Vocational Teachers and Managers

In all countries, the technical and vocational education sectors are characterised by constant change. Many of the current developments – quality assurance systems and the impact of computers on many occupations are but two examples of modern changes in the world of work – have a direct impact on the professional work of teachers and managers; and many of the new styles of vocational programmes – modular, and based on defined occupational standards – demand different teaching skills in the support of learning, and new skills for the assessment of student capabilities.

4. Ideals for Vocational Teacher Training

The curriculum model under scrutiny was a scheme that would define the characteristics and rules applicable to any constituent programme planned to lead to a named qualification. A programme would be designed for a recognised group of trainees or serving teachers, and would be made up of modules, each with defined competence and cognitive outcomes. There are many advantages to this kind of curriculum design. Some of the 'ideals' of such a scheme were agreed to be the following:

- The scheme should provide lifelong opportunities for professional learning and development.

- Employers must be involved in the design and development of the scheme.
- The Equal Opportunities Policy of DVET must inform the design and practice of the scheme.
- Qualifications should be recognised against international standards.
- Qualifications should be within a higher education framework (to establish the status of the professional qualification).
- Programmes and modules should meet current professional needs.
- Programmes should be responsive to changes and developments in the TVE field, using QA procedures, and partnerships with institutions.
- Modules should be flexible in delivery: using a variety of media, methods, locations, mentors and tutors.
- Students should experience a variety of teaching and learning methods (which they may themselves use as teachers).
- Assessment procedures should allow for the recognition of capability acquired outside the scheme: at work, in industry, through life achievements.
- Staff should acquire the capabilities to enable them to be problem-solvers and change-agents in their roles as teachers and managers.
- Staff should have commitment and enthusiasm for their professional work.

5. A Curriculum Based on the Credit Accumulation and Transfer (CAT) Scheme

Major academic programmes based on modular structures are increasingly common in higher education, further/vocational education and in fields of professional education and training. The relative simplicity of units of study of (normally) equal credit value allows for design of curriculum rules to enable:

- Programmes to be defined by a 'profile' of modules from particular categories.
- Some choice in the selection of modules to suit individual needs.
- The continuous accumulation of module credits towards a qualification.
- Modules which may be common to a number of programmes.
- Groups of specialist modules which define a particular award.
- Modules which can be delivered to large groups, small groups and individuals.
- Work-based modules.

- Student-designed modules.
- Research modules.
- The accreditation of prior learning against defined modules.
- The award of credit for the successful completion of individual modules.
- The accumulation of credits over a period of time, especially for working professionals, to complete an award.
- Modular programmes often capable of being delivered with degrees of flexibility to allow students variable start times, negotiable lengths of study time for modules and programmes, and choices about attendance, study methods and assessment occasions.

A CAT Scheme should make provision for a defined group of technical and vocational education teachers and managers. The Scheme Document should also define the QA principles and procedures for the validation of programmes and modules, the evaluation of programmes, and the systems for the assurance of standards of student performance. Although credit can be awarded for prior learning, for the majority of students most credit will be gained through the study of their subject as organised into modules.

Modules should be defined primarily through their outcomes. A module will usually have several specified outcomes, although a project module may be described by one main outcome.

Competence outcomes are primarily concerned with undertaking work-based tasks. Each statement of competence should have a context within which it can be demonstrated to:

- Derive from a work role of the teacher (it should be work-related).
- Be judged against pre-specified criteria.
- Be a measure of what the student can do at a particular point in time.

Cognitive outcomes provide a framework for 'academic' learning, which is related to an area of professional practice. They include: knowledge and understanding of the subject, the ability to apply the knowledge in different situations, the ability to analyse

problems and propose solutions, and the evaluation of learning outcomes, particularly in relation to problems. The assessment of a student's evidence of learning in an outcomes-based module will be against criteria and standards. Both fellow assessors and external verifiers will verify judgements of assessors about the award of module credit.

6. Occupational Standards

An occupational role can be defined by the standards of competence and knowledge needed for effective operation in that role; in most such frameworks the occupational level is connected also to the normally expected academic/ professional qualifications of people in the role.

7. Continuing Professional Development

The concept of lifelong learning translates into vocational and professional areas as Continuing Professional Development, and is commonly included as an element in professional occupational standards. It is vitally important that professional staff in TVE have the requirements to work within such a culture and a framework: this is probably the key element in the development of a sustainable quality of TVE provision.

8. Regional Co-operation

This paper suggests that if it were possible to develop some common concepts and practices in the business of TVE staff development, then many lines of active co-operation would be easier to sustain. There are many ways in which practitioners can be mutually supportive. Regular meetings, seminars and conferences should, with careful planning, bring significant and mutual rewards. Electronic means of communication offer many opportunities. But it is probable that more important benefits to staff developers' knowledge and capabilities would come from exchange and professional interaction in teaching, developing materials and research, in the employment of staff from other countries in the verification of standards of students' achievement and, in the short-term, through shared expertise and experience. In addition, pre-service and in-service teachers-in-training could be regionally mobile by using the mechanisms for transfer of credit and the accreditation of prior learning.

9 KOKORWE, Doreen and TIDIMANE, Christopher (Botswana): Access to TVET

1. Background

Vocational training institutions in Botswana were started in 1965 with only one, based at Swaneng Hill School. They grew over the years, and today we have

47 of them in place. Of these, six are technical colleges and 41 are brigades. Technical colleges are government-owned institutions that offer technical and vocational programmes at NCC level. Brigades are community-based institutions that offer training with

production at trade level, e.g. Trade B and C, and in a few cases at NCC level. Both institutions offer training in courses such as construction, electrics, welding and carpentry that are traditionally known as male trades. The level of certificate from these institutions is lower than that of a certificate for other programmes such as the Certificate in Primary Education and the Certificate in Library Studies.

At inception, these institutions did not receive much support from Government. When it did finally begin to support them, the damage had already been done, and a negative attitude had developed: when these institutions started, their intake was mainly students who had had problems with academic education, and those who failed to complete their academic education were regarded as less intelligent, dull and under-achievers. This was a self-fulfilling prophecy for those who went through the programmes of these institutions, to the extent that a majority of them failed in the world of work. Access was open to both sexes.

2. Objectives of the Study

- To investigate factors that contribute to problems of access in technical and vocational institutions in Botswana
- To determine the causes of these factors
- To come up with recommendations to address these problems.

3. Access to TVE

The concept of access implies acceptance in technical and vocational institutions regardless of socio-economic status, gender or race. The issue of access has been a subject of debate for the past few years when women's organisations began to question the status quo. Apparently access is not restricted by gender alone, it also affects the physically challenged and those students who have been marginalized by the system of vocational education. In the 1992 VET conference proceedings, Harvey, V. A., Karow, W., Molosi, P., Muller, O. and Tempest, P. J. noted that 'The Botswana concept of "Education for All" includes "vocational training for all", i.e. every citizen should have the opportunity to obtain Vocational Education and Training.' (p.25). The issue of access is made even more difficult by lack of relevance to the world of work. The kinds of skills/programmes that are offered through VET institutions are too weak and inadequate to enable their graduates to be absorbed by the world of work. Access is therefore constrained by several factors, including the selection process, institutional structures, content of study, attitudes, perceptions of members of the community, and perceptions of the world of work.

4. The Selection Process

VET institutions advertise their programmes in the newspapers and on the radio. Ideally prospective students are called for written and oral interviews after they apply. Although the selection process looks good, and there are policies in place to ensure equal access, two problems persist: firstly, it takes so long to respond to the applicants that some of them give up and seek alternative options; secondly, rural area dwellers are disadvantaged because information reaches them late.

5. Building Structures

All but two VET institutions were built with no provision for the physically challenged such as those confined to a wheelchair. These limitations extend even to the furniture. New institutions and those to be upgraded under Phase 2 of the expansion project have been built to provide access for the disabled community.

6. Content of Study

The content of the programmes is of a very low standard for institutions that are supposed to prepare students for the world of work. They should develop their curricula in line with those requirements, and the certificates they offer should be competitive, especially since they are not the only ones offering the skills needed. With increasing globalisation, the situation for graduates of VET institutions will worsen by the day. The local job market will favour graduates from neighbouring countries and thus render our institutions useless.

7. Attitude towards VET

At the inception of vocational education, trainees were those who had failed to complete their academic education, including Standard Seven, Form Three and Form Five dropouts. They were thus branded as underachievers, hence the beginning of a negative attitude that would develop into a self-fulfilling prophecy for the trainees. This attitude became so entrenched that even those who enrolled did not shake off the stigma, and graduated to join the unemployed, with all their skills unutilised.

8. Perceptions of Members of the Community

The community has a lot of influence on the choice of careers. Parents want their children to be teachers or nurses and very few think of the blue-collar jobs. Hence vocational education has traditionally been viewed negatively, and we see this even today. Society still perceives vocational training as an area for under-achievers. This has a lot of impact on young people today because we find them opting for vocational education only as a last resort. During VET selection interviews, they always express these sentiments.

9. The World of Work

VET institutions should be aligned with the needs of the world of work if they are to succeed with access. The purpose and primary objective of vocational education and training is to provide its clientele with post-school preparation for occupation in the formal or informal sector of the economy, either as an employee or self-employed. If VET institutions do not meet this primary objective, prospective candidates are denied the opportunity to enrol with them.

In this world of science and technology, where equality of sexes, social justice and human rights are popular topics in various international fora and studies, it is rather disturbing to note that there is still a disparity between the participation of men and women, especially in scientific and technological fields. Invariably there is still low participation of women in a number of occupational and social roles that are at the moment accorded higher status and income. Women represent a relatively small percentage of students in the vocational institutions in Botswana.

The success of any economy depends on the effective utilisation of its human resources, which calls for the equal participation of both men and women. Unfortunately, scientific and technological careers have traditionally been the domain and preserve of men. The major questions to ask regarding this phenomenon are: What hinders women from participating fully in these careers? Is it because women are not mechanically or technically inclined? Or is it that women are not capable of thinking and working scientifically? How far is the socialisation process a contributory factor?

10. The Current Situation of Technical and Vocational Institutions in Botswana

The Government of Botswana is committed to the adoption of gender equality in all policies and programmes nationally, regionally and internationally. Equal access has been emphasised at all levels of education and training, as reflected in the 1977 National Commission on Education, the Revised National Policy on Education (1994), the National Development Plan 8 and other reports. Significant developments have been made to achieve access, including:

- Mushrooming of schools, especially at junior secondary school level
- Education and training of large numbers of teachers and lecturers both locally, regionally and abroad
- Expansion of Vocational Training Centres, now called Technical Colleges
- Upgrading of Brigades

- The interim programme for the training of lecturers at CTVE that is already under way
- Formulation of policies on equal opportunities admissions, pregnancy and others.

However, in spite of all these efforts, we still find gender disparities, not only in education circles, but also in the employment sector. For example, in 1994, females constituted only 33% of the entire enrolment in VET institutions.

11. Problems of Access

There are a number of factors that lead to the ever-escalating gender disparities, as described below:

Career information fails to reach the target population:

Several reasons can be found for this, such as lack of personnel to do this task. In the secondary schools, there are teachers who serve as guidance teachers and are remunerated for the job, but this is not the case at our TVE institutions.

Attitudes

Age restriction

Composition of interview panels

Lack of trained guidance and counselling personnel

Not enough assistance to make students realise that VET is a viable option.

Inadequate selling of the institution to the community

Gendered power relations

The tables below show how the governance of these institutions is biased towards men, who occupy most of the top positions. Not all the institutions are implicitly gendered, for socio-cultural or historical reasons, but this kind of scenario obviously has some impact on female retention in these institutions as the men make all the decisions.

Position	Male	Female	Total
Principal	1	0	1
Deputy Principal	1	0	1
HODs	4	1	5
Lecturer I	7	1	8
Lecturer II	15	4	19
Bursar	1	0	1
Supplies Officer	0	1	1

Palapye Technical College

Position	Male	Female	Total
Principal	1	0	1
Deputy Principal	2	0	2
HODs	2	0	2
Senior Lecturer I	0	0	0
Senior Lecturer II	5	0	5

Gaborone Technical College

12. Recommendations

- Establishment of a comprehensive programme in all VET institutions
- Review of existing policies

- Liaison officers in the institutions to ensure that there is equal participation in decision making, choice of courses, etc
- Regular sensitisation workshops for management at institutional level
- Intensive campaign to disseminate information on VET
- More open days or career fairs to sensitise young people towards VET
- Publicity material to be increased and widely distributed.

10 KOPEKA, Charles and WATERMAN, Nick (Lesotho): The Challenge of Mineworker Retrenchment for Lesotho – An Opportunity for Community Empowerment and Regional Co-operation

1. Introduction

This paper outlines an initiative undertaken by the Ministry of Education (MoE) as part of the Government of Lesotho's poverty alleviation strategy. It seeks to analyse the impact of mineworker retrenchment and describes the process of planning a programme of vocational training as a considered response. It is suggested that a participative approach of stakeholders, particularly at community level, would contribute to the rejuvenation and empowerment of communities. It is also suggested that strategies for addressing retrenched mineworker unemployment should begin at the source of employment, prior to the retrenched mineworkers' return, to help them and their families avoid facing protracted economic and social dislocation at home. The paper concludes that such strategies provide an opportunity for regional co-operation.

2. The Issue

Lesotho has a long history of migrant labour finding employment in the mines of South Africa. The proportion of Basotho has invariably been around 30% of the total mineworker workforce, reaching a numerical high in 1989 of 127,000 (Mhlanga 1996). In 1994 remittances from mineworkers accounted for 98% of all those sent by Basotho working abroad and 34% of Lesotho's GNP (Mhlanga 1996).

Mhlanga (1996) cites important statistics on the impact of mineworker retrenchment. Due to the contraction in gold mining activity and the localisation of labour in South Africa, 300,000 mineworkers were retrenched between 1989 and 1999. 75,000 of these were Basotho. During the last decade there has been a 60% drop in Basotho mineworkers in South Africa. The scale of retrenchment has been most severe and traumatic in

recent years, with a decline in 1998 of over 20% and a further 14% decline in 1999.

Each mineworker supports, on average, between seven and ten others (Monyau, 2000). Consequently, the multiplier effect on individuals and communities of retrenched mineworker unemployment has enormous impact. 95% of retrenched mineworkers express a desire to settle in the villages of their origin. However, few if any have any means of sustaining a livelihood for themselves or their families in indigenous conditions of subsistence agriculture and high unemployment. Additionally, protracted unemployment of the former primary breadwinner can result in the break-up of families (Monyau, 2000), thus undermining community cohesion and individual and collective sustainability.

It has been stated that "the proportion of households defined as poor has increased significantly in Lesotho since 1990 and now includes 68% of the population. Two-thirds of the poor live in destitution with barely enough cash income to satisfy basic food needs." (Gay and Hall, 2000, p. viii). National unemployment stands at between 35% and 40% (UNDP 1998), and together with poverty, tends to be most acute in rural and remote areas (Gay and Hall 2000).

Over a third of retrenched mineworkers express self-employment as providing opportunities for paid work (Mhlanga, 1996). Yet their capacity to engage in self-employment is limited: over half of them have either no formal education or none beyond Grade 4 (Mhlanga, 1994). They tend to lack entrepreneurial skills and few have any previous experience of micro or small business activity (Mhlanga, 1994).

The return of a comparatively high number of unemployed people with comparatively low skills levels exacerbates the existing difficulty of absorbing poten-

tially economically active people into the labour market. Therefore, the re-integration into communities and society of a numerically large number of formerly economically active Basotho males relative to the population of Lesotho as a whole is a crucial socio-economic issue with a resounding impact.

It is against this background that the retrenchment of Basotho mineworkers could be termed "a national disaster" (Monyau, 2000, p.10). Whilst retrenchment may be most acute in Lesotho, other countries such as Swaziland and Mozambique, for example, may face similar difficulties.

3. The Response

There have been a number of positive responses from the NGO sector, parastatals, international donors and central government. The Mineworkers Development Agency (MDA) in Lesotho provides enterprise development programmes, including vocational skills training, business training and counselling services. The Ntaflato Training Centre, originally established with assistance from South Africa's Department of Foreign Affairs and now under the auspices of Lesotho's Ministry of Labour, provides vocational training and entrepreneurial skills.

The Lesotho Opportunities Industrialisation Centre (LOIC) also provides vocational and entrepreneurial skills training, while the Basotho Enterprise Development Corporation (BEDCO) has assisted mineworkers prior to retrenchment in preparing business plans and providing loans to establish micro and small enterprises. Both institutions fall under the Ministry of Trade and Industry.

MoE has a number of relevant programmes that help to address the issue of mineworker retrenchment. The Lesotho Distance Teaching Centre (LDTC) provides a Basic Education programme in literacy and practical subjects such as poultry-keeping through Radio Lesotho, local learning centres or "Learning Posts", and self-study materials. With over a hundred Learning Posts throughout the country, teaching is devolved and delivered in many of the remote communities most in need. Future plans include the provision of more subjects and recognised certification.

Some post-secondary technical training institutes, such as Bishop Allard Vocational School in Maseru and Leloaleng Trades School in Quthing, have expressed a desire to offer training for retrenched mineworkers and others in the informal sector. The German development organisation GTZ and the World Bank have committed funding for the development of this sector.

However, much of the demand for skills and entrepreneurship training lies in rural and remote localities. In these areas, education and training facilities are under-resourced or even non-existent.

An example of an initiative by MoE to target remote areas is a collaborative venture between Lesotho's Technical, Vocational and Higher Education Department (TVD) and Skillshare International (formerly Skillshare Africa). TVD is part of MoE and Skillshare International is a UK-based NGO working in Africa and Asia. In 1998, they implemented the phased introduction of a joint five-year project funded by the UK National Lottery (Skillshare Africa 1998). The focus of the project is poverty alleviation.

One important strand of the project is the provision of TVET to the unemployed in remote areas. A key group of primary beneficiaries is retrenched mine-workers. The participatory and inclusive methodology in the planning of TVET within the project has been deliberately adopted to encourage ownership and development of central government initiatives by local communities. In this way, addressing the issue of retrenched mineworker unemployment also affords the opportunity for the rejuvenation of beleaguered communities.

The process of developing training programmes in one pilot area has involved a community-based approach. Community leaders and the community as a whole have participated in discussion, consultation, planning and decision-making. The participative nature of the process contributes to its enrichment and to the empowerment of the community.

In an increasingly devolved system of government administration, local Heads of Government Departments, District Administrators and the District Development Committee have been consulted. The Village Development Committee and a village meeting, or pitso, contributed to the identification of training needs and estimation of resources. Through ownership, the community is able to exercise important influence on its own future; because of decentralisation, and with other stakeholders taking more responsibility, TVD has more of a facilitative, monitoring and advisory role.

4. The Challenge

The participative approach to addressing the issue of retrenched mineworker unemployment affords the opportunity for empowerment of communities. However, as long as the issue is addressed primarily after retrenched mineworkers have arrived home, it is essentially a reactive approach. Given the scale and impact of mineworker retrenchment for Lesotho, a more pro-active approach is perhaps required.

Also, most of the current provision for retrenched mineworkers is unco-ordinated and geared to the informal sector as a whole. There is no overall national strategy to address solely the needs of retrenched mineworkers in particular, and to ameliorate the social and economic impact that the high level of retrenchment is having at community and national level. Nor is

there, as yet, a strategy for international co-operation in addressing this regional issue.

Identifying the numbers and destinations of retrenched mineworkers in advance would enable local communities to anticipate and plan for their return in a structured and phased manner. A programme of individual skills assessment could help to establish any match between the current skills of mineworkers and skills shortages in Lesotho. Registration by retrenched mineworkers for preferred training and employment options might enable their employment preferences and training opportunities in Lesotho or elsewhere to be more closely correlated. Much of the research work should be conducted in South Africa prior to retrenchment.

Additionally, training or retraining for mineworkers could be provided in South Africa, also prior to retrenchment, and might include help in transferring existing skills to new paid activities, the learning of new technical and vocational skills and support for establishing and sustaining micro and small enterprises. A planned and effective programme of mine-worker (re)training, basic education, and guidance on the optimum use of deferred repayments could be implemented months before retrenchment. Consequently, there would be greater economic and social cohesion in Lesotho as the marketable employment skills and/or self-employment strategies of retrenched mineworkers could be implemented upon arrival at home.

The funding and administration of regional strategies for addressing retrenched mineworker unemployment would involve agreement between a number of parties, including mineworkers and their organisations, mining companies and training providers. Perhaps not least, agreement might be required between the Government of South Africa and the Government of Lesotho. This is the challenge of regional co-operation between

community-based organisations (CBOs), NGOs, national institutions and governments.

5. Conclusion

Regional co-operation in planning, implementing and monitoring strategies for mineworkers prior to retrenchment would not just involve international sector co-operation, for example, by NGOs across borders in providing training for retrenched mineworkers. It might also involve international co-operation such as, for example, community-based organisations (CBOs) from one country providing business support services, and mining companies in another providing pre-retrenchment financial guidance.

In this way, the challenge of mineworker retrenchment provides an opportunity for regional co-operation and for the strengthening and empowerment of SADC itself.

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11 LEE, Dennis Frank (Namibia): Work Attitudes – Myth or Reality?

“Graduates with good work attitudes make good employees. A negative attitude may result in slow work, absenteeism and high employee turnover. It may also be a cause of grievances, low performance, poor product quality, theft and disciplinary problems. Favourable attitudes are desirable as they tend to be connected with the positive outcomes that employers want. Hence, graduates with a good work attitude are much in demand by employers and have less difficulty finding employment.”

Attitude has generally been regarded as a form of mental readiness or predisposition which exerts a general and consistent influence on a fairly large group of evaluative responses. These responses are usually

directed towards some object, person, or group. In addition, attitude is seen as enduring predisposition, but one that is learned rather than innate. Attitude, therefore, is susceptible to change. An attitude is a settled mode of thinking, a habit. Settled modes can be unsettled and habits can be broken.

This brief paper looks at:

- The generic work attitudes that employers look for in graduates from vocational training programmes;
- The ways an instructor/teacher can inculcate good work attitudes in his trainees/students.

A project aimed at researching this area of vocational training in the SADC region might find it useful to ask the following initial questions:

- Where are we now?
- Where do we want to go?
- How do we get there?
- What do we want to avoid?

1. Phase 1 of the Research

Design a series of instruments to facilitate dialogue between training institution staff and employers to gather data on

- The views of employers on the current work attitudes of graduates from the training centres.
- The kind of work attitudes valued by employers.

2. Phase 2

Analyse the data to identify generic clusters of valued work attitudes.

3. Phase 3

Research the learning strategies that instructors/teachers can employ during training programmes to enhance the development of valued work attitudes.

4. Phase 4

Develop an induction programme for newly-appointed employees that will highlight a selection of valued work attitudes. Individual companies can select specific attitudes they particularly value to include in their own induction programmes.

To provide a background to the research of learning strategies that can be used to facilitate the development

of good work attitudes, a brief review of the theories of the development of attitudes should be conducted (e.g. Krathwohl, Bloom, et al).

Reference to the five major categories in the affective domain should also be supported by a brief review of the theories of 'attitude inventories', leading to strategies of self-evaluation and self-improvement.

5. Outcome of this Phase of the Study

Design and development of a profile of valued work attitudes and a range of learning strategies from which the individual instructor can choose those appropriate for specific groups of trainees.

Example from a previous research study:

- Attitude/attribute
- Learning strategies
- Pride in work
- Small group work
- Student presentations
- Project work
- Case studies
- Student seminar
- Individual study

A version of this study has recently been applied in Namibia as a pre-vocational part of the TVET component of the HRD Programme.

This area of research is vital to the quality of provision of TVET and is highly recommended as one of the projects to be conducted across the SADC region.

12 LESPERANCE, John Thomas (Seychelles): Access to TVET – The Future of TVET

1. Introduction

The education system in the Seychelles has often been described as exemplary by many international organisations and as one of the best in sub-Saharan Africa. The education policy was driven by three fundamental principles: education for all, education for life and education for personal and national development.

This paper will explore TVET in the Seychelles with a view to comparing how people were given access to TVET programmes in the past, how they are at present, and how they will be in the future. It will also provide a brief understanding of the new concept adopted in order to promote TVET, illustrating the ways in which

it is now more accessible to all age groups and provides lifelong learning and training opportunities through a progressive approach. The paper will explore the strengths and weaknesses of the past and present training system.

In January 1999, reform in the Seychelles education system brought about major changes. The new education policy, entitled "Education for a Learning Society", calls for a wide array of courses catering for different levels of entry. It also provides a flexible structure for progression on merit and more advanced levels of training, together with the capacity for quick response to the changing needs of employment and industry. It should also offer wider opportunities for

the participation of both genders in technical and vocational skills programmes.

2. TVET in the Seychelles before the 1999 Education Reform

Technical Vocational Education and Training (TVET) in the Seychelles was carried out under the Ministry of Education and Culture at the Seychelles Polytechnic. Another approach to the implementation of TVET, which was being gradually implemented, was the introduction of a two-tier system in the third year of secondary education which incorporates academic and vocational programmes.

The Seychelles Polytechnic was a hybrid tertiary institution with a very clear brief to cater for all technical vocational education and training according to manpower needs, as projected from a highly centralised planning perspective. Pre-employment craft and technician courses were offered on a full-time basis following the City and Guilds of London Institute (C&G) syllabus.

The process of maintaining standards took various forms depending on traditional practices. External examination bodies such as UCLES, C&G and the Pitman's Institute have been used to moderate standards in some schools. Consultancies have led to curriculum revisions in others, while linkage schemes have not only made possible staff and student exchanges between institutions, but have also enhanced significantly the quality of some training programmes. The C&G syllabi used were standard prescriptions and not necessarily targeted to the needs of the labour market. The full-time pattern of attendance made the courses predominantly theoretical and, as a result, employers complained that the courses did not meet the skill levels needed for effective job performance.

3. Issues Affecting TVET

The issues affecting TVET in the Seychelles were typical of problems faced by most developing countries, compounded by the transitory nature of the economy. These included:

- inadequate institutional framework
- mismatch between supply and demand
- lack of relevance
- inefficiency, ineffectiveness
- inappropriate curricula and approach
- inadequate financial provision for training.

4. The 1999 Education Reform

As part of this reform, most of the Polytechnic's Schools, then under the Ministry of Education, went to their respective Ministries. The Schools of Agriculture

and Maritime Studies were transferred to the Ministry of Agriculture and Marine Resources; the School of Art and Design to the Ministry of Culture; the Hotel School went to the Ministry of Tourism; and, finally, the School of Health Studies went to the Ministry of Health. The reform also brought about the creation of a new Industrial Training Centre to provide occupational trade programmes for the construction and engineering industries. The Polytechnic only kept the Schools of Business Studies, Humanities and Science, and Technical Studies, and today operates with a mandate to provide advanced courses at diploma level.

The creation of a new division in the Ministry of Education, the Technical and Further Education Division, to implement new policies and strategies, is again another sign of Government commitment to enhance the development of TVET in the country.

The principle reasons for the reform and the decentralization of training were principally to improve the quality of training provided by the different training institutions and to increase access to TVET.

5. Industrial Training Centre (ITC)

For the purpose of this paper, I am going to focus on the Industrial Training Centre (ITC), since I was involved in its planning and implementation phases, and because it illustrates once again the Government's commitment to providing good and coherent training for its citizens.

The Industrial Training Centre, which is under the Ministry of Education, became operational in January 1999. The mandate of the Centre is to provide and deliver intensive occupational trade programmes for the construction and engineering industries, principally to substantial numbers of school-leavers. All programmes offered by ITC are modular and competency-based in nature. A progressive level approach has been adopted which includes levels 1, 2 and 3.

Currently the functions of the ITC are based at the Polytechnic Schools of Construction and Engineering. For this interim period, their facilities are being used to run level 1 training programmes. However, the Government of Seychelles has secured funding to the value of US\$ 6.4 million for the reconstruction of the Industrial Training Centre in an industrial environment. This will give a big boost to TVET in the country. Construction is expected to start early in 2001, and once completed will revitalize TVET and provide greater access to training programmes. The Centre will be provided with the latest equipment, to which trainees will have access.

The flexible entry requirements allow any school-leaver who has satisfactorily completed the secondary cycle to join the Centre. Notwithstanding the foregoing, the ITC is structured such that other applicants

(such as in-service trainees from industry) will also be catered for.

This flexibility has allowed a considerable increase in the number of students entering TVET in Seychelles. More girls are now finding it easier to opt for a career in the construction and engineering industries through the new opportunities being offered to them. The ITC has been able to double the intake figures for its courses, and is expected to absorb even more trainees once the construction of the new buildings with their additional facilities is complete.

Training Programme Area	Number by Gender		
	Male	Female	Total
Construction trades	250	14	264
Engineering trades	275	11	286

Student enrolment in 1999 and 2000 combined

Modular structures require a diversified and flexible approach to the calendar and to daily timetables. The Centre will operate longer hours to accommodate the various demands of full-time and in-service courses, as well as sufficient flexibility to accommodate trainees who need to remedy particular weaknesses.

Trainees alternate between the ITC and industrial experience. When one-half of the trainees are in the ITC, the other half is following industrial experience. However, although employers are now more willing to take on trainees for work-based experience, one drawback for the Seychelles is that there are not enough placements on the islands for work-based experience.

6. Certification

The modular system will provide for a variety of types of certification. For example:

- Completion (mastery) of a particular module/unit will automatically qualify the student for recognition of competence in that particular skill.
- Completion (mastery) of a particular group of modules (and industrial experience) will qualify the student for a particular certificate of competence at a particular level (Trades Test or its equivalent).

- Completion of a particular range of modules may qualify the trainee to enter for an overseas examination.

Modules are designed to cover very specific and specialized needs of industry. Those following principally in-service courses, and who complete such modules, may qualify for recognition in that particular, specialized skill. In general, however, certification will be orientated to broader areas of competence.

The Industrial Training Centre programmes are modular in nature and competency-based. This modular approach allows greater flexibility for trainees to opt for particular combinations to meet individual requirements. This will result in shorter training periods and will allow trainees to move at their own pace.

7. Areas for Co-operation

With the help and assistance of others, ITC could develop a unique learning system, personalized, and self-paced. All programmes would be designed around practical projects that simulate actual working conditions. This approach to educational design and management is more like the real world than the traditional educational system. In these programmes trainees will have the advantage of working one-to-one with instructors at a comfortable pace. Classes would also be arranged to meet the requirements of part-time trainees.

As the ITC is still at a developmental stage, there are areas where the Centre could benefit from the assistance of other regional and international partners. In this day and age, co-operation and development are critical issues of TVET. The ITC would like to establish links with various training organizations and providers within the subregion with a view to sharing resources and experience. This could be in the form of exchange visits between staff and trainees, allowing ITC staff to be exposed to similar training approaches elsewhere. Other areas could include programme development, staff training and resource development.

13 LITABE, Mallane (Lesotho): Access to TVET

1. Introduction

Employment trends and work concepts are constantly changing worldwide. Employees are expected to work better, faster, and be more intelligent. Internationally, the traditional "work for life" concept is becoming a thing of the past. Due to the increasing emphasis on productivity, remuneration is based more and more on performance and production than on time. By the

same token, work of a higher quality is expected from fewer people in less time.

This increasing value placed on performance emphasises how we use our time, and not how much of it we use. The end result could be an even greater scarcity of jobs. However, people who plan ahead, understand systems, and who can use technology to link learning with solutions, will always have plenty of work no matter how the future unfolds. This implies that

constant skills enhancement is necessary for those wishing to succeed and remain marketable.

2. Innovative Use of Facilities and Equipment

The enormous growth in part-time training shows that people are becoming aware that in order to increase their marketability they have to augment their skills in line with current job requirements and future trends. Cumulative experience of recent years suggests that many of the development strategies pursued by developing countries have failed to produce the kind of results that were hoped for by planners and policy makers. In particular, mounting unemployment among young people has emerged as one of the most intractable problems at a time when virtually all countries are striving to expand their education systems: reorientation of schooling to integrate and give emphasis to technical and vocational education may well be justified, but is unlikely to lead directly to the creation of new jobs.

2.1 Cost-effective solutions for design, construction and use of facilities

Successful individuals possess certain characteristics that distinguish them from the rest of the crowd. Successful individuals are goal-orientated; they have a clear concept of what they want and how to get it; they are self-motivated and can work independently with little or no supervision; they can adapt to new situations, seeing change as an opportunity instead of a threat; they are willing to learn and thrive on development.

Securing an effective national response to the problems of organizing TVET is often difficult because of the involvement of a multiplicity of agencies (government ministries, donor communities, churches and NGOs, etc). Economists and human resource planners, private sector employers, representatives from the public service and officials from other ministries are just as likely to be involved as educational policy makers and planners. In addition, national ideologies, historical antecedents, social, economic and cultural factors are also powerful variables in the different approaches to TVET planning and provision.

A review of the resource inputs over the period (1991 to 2000) portrays a rather gloomy picture of programme performance.

To be effective, policies for educational reform aimed at minimising unemployment and improving links between work and school must be considered in conjunction with policies for additional employment opportunities and for modifying current labour market practices. In many respects, issues affecting the planning of TVET cannot easily be separated from those affecting planning of education as a whole,

especially with regard to the significance that needs to be attached to the clarification of aims and purposes.

3. Range and Flexibility of Programmes to Suit All Target Groups

The programmes must be "sold" to the community as being worthwhile, not second-rate, simply because they are delivered in a non-traditional way.

Three characteristics distinguish TVET from other forms of educational provision. Firstly, most forms of TVET are assumed to have strong associations with the labour market and with life after school: though it may not lead directly to economic growth, it is widely regarded as playing a key role in easing the transition from school to work and enabling young people to acquire employment-related skills. Secondly, the modern sector depends more and more on knowledge and understanding derived from developments in science and technology, which has made it essential for elements of applied science, craft practice, and technology to form part of general education, apart from the need to encourage educational experiences relating more specifically to the world of work. Finally, from the planning point of view, there are questions about when, where and how technical subjects and vocational skills should be taught.

4. How the Relevance of Programmes to the Local Economy is Ensured

Providers must ensure that TVET learning materials are appropriate to the target groups, and that the skills and competencies learned are those required by occupational groups and appreciated by employers. The courses must have an accreditation that is acceptable by both enterprises and other educational institutions.

Without underestimating the importance of seeking policies, criteria, techniques and procedures to enable administrators of education systems to carry out their tasks more effectively, I believe that the most acute problem arises from confusion about the nature, purpose and relevance of education. TVET is characterised by features that pose problems for policy-makers and educational planners, in terms of locating provision within both appropriate objectives and appropriate structures, overcoming constraints associated with high recurrent and capital costs, and nurturing effective management practices.

5. Conclusion

The Government and people of Lesotho recognise the enormity of the task of addressing competently the challenges of access, quality, relevance and capacity building in education. There is adequate appreciation of the necessity to work in concert and collaboratively with the world community to address these challenges.

We should remain committed to the spirit, articles and goals of the OAU Decade of Education in Africa, the Jomtien Declaration, the Harare Declaration and the SADC Protocol on Education and Training. We should continue to encourage and be active participants in the joint initiatives to improve education in the African continent. We need to stimulate and seek new partnerships in the fight against illiteracy, disease (especially HIV/AIDS), poverty and hunger.

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14 MAHUBE, Bester (Botswana): Quality of TVET

Appropriateness of TVET Programmes to the Botswana Economy

The issue of the quality of Technical and Vocational Education and Training (TVET) programmes is pertinent to the success of the Government of Botswana's goal of achieving sustainable economic diversification in the National Development Plan Eight (NDP8) and beyond. It is therefore imperative that our TVET institutions should always strive to ensure the provision of the best possible technical skills through consistent facilitation of quality training programmes in order to improve and enhance the quality of life of Botswana as well as creating sustainable economic development.

This paper will therefore focus on the quality of skills offered by Brigades. Brigades are among the main providers of technical and vocational training in Botswana. At present they offer training in more than fourteen different vocations. An important feature of the Brigades' training programmes is the concept of Training with Production which was introduced by the founder of the Brigade movement Patrick Van Rensburg in 1965 at Serowe's Swaneng Hill School. This Training with Production programme offers trainees an all-round package of theoretical lessons, practicals and on-the-job training.

The training offered by the Brigades is perceived to be of poor quality. This view is held by people who have had very little contact with Brigades graduates, and continues to prevail because initially the Brigades admitted primary school dropouts because of the shortage of secondary school places at that time. The situation has since changed with the introduction of nine and later ten years of basic education for all school-going children. Those who enrol in Brigades are now Junior Certificate holders and some "O" level certificate holders who fail to be admitted to tertiary institutions.

The best judges of the quality of such training are the employers in their various forms who can state the level at which they rate brigade graduates as against those from other institutions.

Brigades have failed to dispel this 'poor quality' perception over their many years of existence, mainly due to lack of financial resources to engage public relations officers to project and promote their good image, or even to commission consultancies to determine the extent of their skills contribution to the national labour market.

The Department of Vocational Education and Training (DVET) which took over the functions of the former Brigades Development Centre (BRIDEC), has not helped the Brigades to shed this stigma, largely because DVET tends to focus more on Vocational Training Centres (VTCs) which are 100% government owned. The recent name change of VTC to Technical Colleges (TCs) will further polarise the two institutions, as a perception of superiority will now be attached to TCs – a view that will continue despite the fact that both institutions require the same entry qualifications, which are predominantly a Junior Certificate in construction trades and "O" level in mechanical and business studies.

The 1995 Tracer and Evaluation Study of Botswana Brigades by N. H. Fidzani and L. Mafela of the University of Botswana stated that "in spite of the current problems experienced by the construction industry, the study found out that the majority of the graduates who completed between 1989 and 1991 still hold their jobs". The researchers interpreted the above to mean that the Brigades graduates had survived the retrenchments and were therefore performing well in the job market. That was further taken to mean that Brigades graduates are able to secure good jobs and that they are not easily affected by the ups and downs of the labour market. The researchers also established that they

performed well enough to retain their jobs, and that those who secured jobs with government departments, councils and parastatals also performed well, with some given positions of responsibility.

The study went on to state that Training with Production makes Brigades graduates strong performers in practical work. It however noted that the extent to which practicals are undertaken in the Brigades depends on the strength of the production wing of a particular training institution. It was found that if production units are strong, trainees will have an enhanced opportunity for practical training.

The above example dispels the notion that Brigades produce poor quality graduates. Brigades have adapted to the current needs of the learning population even though they continue to pride themselves in promoting the concept of Training with Production.

The rise in entry requirement from Primary School Leaving Certificate to Junior Certificate and above has enabled the quality of Brigades training to improve, with more "advanced" theory being offered. The Brigades now use the same syllabi in all their programmes as do former VTCs, and they take the same examination administered by Madirelo Training and Testing Centre (MTTC). The Brigades workshops are well equipped with modern facilities to enable trainees to acquaint themselves with the technology currently in use by industry. The availability of computers in some Brigades has enhanced the trainees' knowledge of information technology by exposing them to the most recent computer applications such as Windows 98, MS Office and others.

The majority of Brigades still offer Trade "C" and "B" certificate level courses, but there is a positive trend towards higher qualifications. Tswelelopele Centre, which in the past was the only Brigade offering training in Architectural Draughting up to National Craft Certificate (NCC), maintained a high pass rate, hence the government decision to add more NCC courses in other Brigades. Under NDP 8, the government has upgraded three Brigades to offer courses up to NCC. Four others will be added at a later phase. The private sector and government easily absorb the graduates of the Architectural Draughting courses as technicians. Some of the successful ones have upgraded themselves through government sponsorships to acquire diploma and degree qualifications in either Architectural Draughting or Civil Engineering.

The cited example demonstrates the extent to which Brigades graduates compete favourably in the job

market and therefore indicates the acceptability of their training. The Tracer and Evaluation Study also revealed that as far as workmanship is concerned, Brigades graduates are just as good as any artisans in the market. It was established that, on account of the nature of their training, they were rated the best in terms of work attitude.

With government support, Brigades are sending their instructors for courses offered by the University of Botswana and to Technicons in South Africa to study for diplomas in their respective specialisations. About 90% of instructors are now holders of NCC qualifications and some are improving their academic qualifications through private study. Brigades continue to diversify from offering mainly construction vocations into areas such as business studies, auto engineering, and electrical engineering.

Batswana should begin to realise that the way forward for most of our youths is to enrol for artisan training, and the Brigades are the most experienced institutions in this area. The Revised National Policy on Education (RNPE) of 1994 encourages among other things the effective preparation of students for life, citizenship, and the world of work, and the improvement and maintenance of quality of the education system. It is now evident to most parents that there are limited vacancies in our tertiary institutions. This situation leaves most youths with nowhere to go but to roam the streets. Joining technical skills training should be considered a viable option, especially since the government is promoting such diversification in our learning approach.

The current system allows youths who have completed certain courses to upgrade at a later stage to acquire diploma and degree qualifications, even after going through Brigades training.

The way forward in the 21st century is through learning for life, work and the future. The southern African region should establish a network of technical and vocational education and training institutions to facilitate the flow of information on educational matters. There should be an exchange of views about how to work towards the continuous improvement of technical and vocational training. Trainees should have access to higher institutions of learning, either through full-time programmes or through distance learning. Local institutions should allow such aspiring trainees to use their facilities for both study and practical training.

15 MAJELA, Thelma K. (Botswana): Recalibrating and Refocusing TVET: Setting up a Therapeutic Environment

1. Introduction

Like other countries in southern Africa, Botswana has experienced exponential demand for tertiary education, particularly in student numbers and courses offered. In the past, tertiary education was regarded as the last resort after people had exhausted all the possible desired career options. The new trend clearly requires a new approach to career exploration. A typical example is the recently conducted entrance interviews for places in the new Gaborone VTC, where approximately 18,000 people applied for 1,500 places. The scenario raises concerns about the characteristics of the learners, their academic background and the life experiences they bring into the institution, to mention a few. Moreover, the level of preparedness of those dealing with the learners is an equally important area of concern for education reform.

2. Philosophical Assumptions

The philosophical assumptions guiding the conceptualization of the paper are based on the understanding that people are unique in their personal characteristics and yet they possess a complex reality that is influenced by various components. We all exist within a phenomenological worldview that is heavily influenced by our personal, social, psychological, spiritual, cultural, political, economic and educational contextual realities. These realities are not mutually exclusive and therefore remain closely intertwined. The implication is that if a single component is not balanced, one is likely to feel psychologically fractured, unbalanced and disempowered, and will experience disequilibria either at a personal and/or interpersonal level. A well-functioning person will have all in synergy and synchronized to maximize individual potential and capabilities. The role of the institution is to recognize and appreciate the imperative existence of all these facets of student life and to strive towards addressing them in totality.

3. Character of the Student Population

The development and implementation of the policy on equal opportunities in the MoE is a giant step towards equitable access to and sharing of resources. Technical institutions will have a new student population with different family backgrounds, gender composition, special needs, ethnic origins and others. However, such diversity presents a paradox because it both strengthens the environment and yet may be a challenge for those who do not know how to deal with it. Consideration must be given to:

The culture of learning:

It is a reality that many of the students entering vocational institutions have been trapped in the backlog that could not be addressed by the limited training spaces. Effective study skills and techniques and general conceptualization may be a challenge.

Career guidance:

Some students chose vocational and technical education as a last resort because they were probably out-competed in their initial choices. This is very dangerous and may lead to high drop-out rates and dissatisfaction in the workplace.

Morale and motivation level:

Many of the learners have been exposed to repeated failure and other demoralizing situations. It is critical to recognize the internalized feeling of inadequacy that could be perpetuated through the self-fulfilling prophecy, leading to complacency and counter-productivity.

Self-esteem and self-confidence:

The continued feeling of rejection by the self, others, and institutions of authority can lead to low self-esteem. The value that one gives to the self is critical in terms of internal growth, life aspirations and vision.

Exposure to socio-economic and psychosocial dynamics:

Many of the learners have been exposed to the rigours and challenges of life that include poverty, unemployment, retrenchment, substance abuse, suicide, HIV/AIDS and teenage pregnancy, to mention a few. This means that institutions have students who are either the primary or secondary victims of the stated ills and need help to cope and function effectively.

Multiple roles and functions:

Many of the students perform multiple roles and functions in life. These include being spouses/companions, parents, siblings, caretakers or employees, and some play them all simultaneously. It is important that the learning environment recognizes these challenging roles and assists the learner to juggle them all effectively.

Varied coping resources:

Students bring coping resources that are fully entrenched in their behavioural repertoires and have been internalized in their world view. Some of the coping resources may be maladaptive and need reshaping.

Impact of HIV/AIDS:

Both learners and staff, as members of a community that is currently experiencing the ravaging effects of HIV/AIDS, may be grappling with the issue in their personal lives and also in the lives of other significant people. Though not exclusively, HIV/AIDS presents these issues:

- Symbolic loss, e.g. of esteem, attachment, status
- Emotional effects, e.g. of pain, resentment, anger, depression, guilt, fear
- Early parenthood
- Behavioral effects, e.g. disobedience, poor hygiene, truancy, aggression
- Poor academic performance
- Physiological effects, e.g. weight loss, headaches and other ills.

4. The Support Structure in TVET

It is very important for all TVET institutions, in their efforts to empower and reform the education structure, to look at the learner from a holistic point of view.

The fundamental question is whether to explore the current structures in TVET and critically review their readiness to provide a support system that appreciates the self as a complex being, or to take a simplistic approach that disregards other facets.

5. "Wellness Model": an Approach for Health Promotion

The paper proposes the wellness model as a health promotion approach for the new TVET, and of course

for other learning institutions. According to Robinson and Carrier (1999), the general assumptions for the model are founded on:

- Taking a holistic view of health
- Being proactive, not just for specific change but for a broader attention
- Viewing individual health as a function of interconnectedness
- Defining meaning and purpose in life, including paid and unpaid work
- Social existence and support from others
- Spiritual connectedness
- Striving for happiness and personal joy for emotional status
- Believing people are generally good and seek goodness
- Reconnection with the self to lead to internal wisdom
- Promoting consciousness in understanding the mind, body and soul
- The need for good health
- Intellectual stimulation
- Time for the self
- Humour and laughter
- Resilience (physical and emotional)
- Pleasure and play
- Financial resources.

16 MBUDZI, Joyce C. (Zimbabwe):

Access to Technical and Vocational Education and Training

1. Introduction

This paper makes a brief examination of the curricula in former colonial countries, their basis and thrust since independence and how they have affected access to technical/vocational education and training, with particular reference to Zimbabwe. The paper will conclude by suggesting possible solutions to existing problems, thus charting the way forward.

2. Definitions

It is essential to make a conceptual distinction between practical subjects on the one hand and technical/vocational education on the other. Practical subjects are those found on the timetables of most primary and academic secondary schools, relegated to the afternoons, where pupils are expected to use their hands

after dealing with the more desirable 'academic' subjects in the morning. They are normally afforded a low status and meant to benefit the so called "less gifted" pupils who are not expected to progress far with their education. These include subjects like home economics, gardening and building. Such subjects are usually gender biased, with girls made to take up household-related subjects like domestic science while the boys learn subjects like bricklaying.

On the other hand, technical/vocational subjects include those driven by commerce and industry in the private, public and informal sectors of the economy. They are meant to relate school activities directly with those in the workplace, be it in the formal or informal sector. Examples include garment construction, pattern-making, hotel catering, fabrication, marketing, financial accounting and banking: subjects that will

enable the school leaver to move directly into the world of work, either formal or informal, and with little further training to earn a living as a semi-skilled or skilled worker.

3. Situation at Independence

At independence, most former colonial countries demonstrate great enthusiasm and commitment to massive industrialisation and commercialisation of the economy and the cherished modernisation of life for everybody. A commitment is made to redesign curricula to ensure that appropriate skills and attitudes are imparted to pupils, who will be able to appreciate the role of productive work and undertake it. The products of all educational institutions, in the final analysis, are supposed to be relevant to their economies as these transform. They are supposed not only to be able to maintain what is there, but to invent and discover appropriate technology which the countries' material conditions demand from time to time.

However, as time goes on, these high hopes of matching school curricula with the needs of the economy are usually dashed. Cosmetic modifications alone are effected in the curriculum, mainly involving a mere change of names and the introduction of some low-level type of practical education that is not likely to lead to the desired transformation of the economy. In SADC countries a rash of slogans appeared, such as "Education with Production" in Zimbabwe, "Education for Self Reliance" in Tanzania, and "Humanist Education" in Zambia.

In Zimbabwe, nine Zimbabwe Foundation for Education with Production (ZIMFEP) Schools were set up at independence, but even in these schools, intended to spearhead technical/vocational education in the country, productive activities were separated from the academic curriculum. The latter remained superior and continued to follow the traditional technical thrust, dominating all curriculum activity, until the so-called practical subjects were swallowed up and again relegated to second fiddle. Consequently, access to true technical/vocational education in the schools system in Zimbabwe has become just a dream.

4. Philosophical Backing for Academic Education

This continued thrust towards what has come to be called "academic rationalism" has been abetted by the activities of most Examination Boards in the former colonial countries. To these bodies, localisation means adopting or adapting the aims and objectives of the former colonial system together with its thinking and *modus operandi*. The change in their names is, again, mainly cosmetic. In Anglo-Saxon countries practical subjects like home economics and carpentry have remained intact, faithful to the British tradition in spite of the existence of viable commerce, industry and

informal sectors in these countries. The result is that relevant technical/vocational education is anathema in the primary and secondary school system in most SADC countries such as Zimbabwe.

Perhaps this strong commitment to theory by secondary schools, and indeed conventional universities, derives from historical and philosophical ideas about "worthwhile" knowledge inherited from SADC's colonial past. Based on the Aristotelian dichotomy between theoretical and practical knowledge, the conviction that theory should be accorded a higher status than practice persists today in a variety of forms.

The Zimbabwean Experience

The British brought this warped academic paradigm to their colonies and deliberately made "academic" education available to the colonisers, while "practical" education was availed to the colonised. The work of Loram in Natal at the turn of the 20th century, and that of Kegwin and Jowitt in the 1920s and 1930s, in setting up low-level craft institutions for Africans only, such as Thsolothso and Domboshave in the then Southern Rhodesia, is well-known. In Rhodesia, in the 1960s, this approach was carried into the secondary schools through the F(2) system, whose objectives were to confirm the supply of its products into the Rhodesian reserves if male, and into housewives if female. Practical subjects were thus limited to growing vegetables and rearing domestic animals such as chickens and rabbits – subsistence activities only. Access to true technical/vocational education was reserved for the whites in institutions such as the then Salisbury Polytechnic and Bulawayo Technical College. The infrastructure in place in the various secondary schools was not put to good use. No wonder all the F(2) schools were converted to academic institutions soon after independence.

5. Attitudes

The greatest impediment to access to true technical/vocational education by the majority of primary and secondary school pupils seems to be the attitude of people involved in education, be they politicians, managers and administrators, practitioners, parents or the pupils themselves. Unfortunately the decision-makers in education, the new black elites, themselves possess an academic education and believe that this type of education is the best for the country. It is therefore understandable that parents should want an academic education for their children, since it is erroneously believed to lead to white collar jobs and salaried employment and the consequent 'good life' – a myth that is disproved daily in present-day Zimbabwe.

The result of this is that politicians and education managers continue to allocate more financial, material

and human resources to academic education at the expense of technical/vocational education. The massive expansion in education experienced after independence is all geared towards academic education, i.e. more 'O' and 'A' level schools.

Compulsory sections in the school curricula continue to be dominated by academic subjects, and these are the ones that attract the prizes. Consequently the introduction of true technical/vocational education in primary and secondary schools in Zimbabwe has remained elusive despite growing protests from industry and commerce, the pupils themselves and society at large as economic hardships intensify.

Even at higher levels there appears to be some form of resistance from conventional universities, which seem more comfortable with products of the academic secondary schools rather than of reputable technical colleges or polytechnics: after four years of study in technical/vocational areas, students from the polytechnics are required to start again as if they were new 'A' level graduates. Surprisingly, these students are admitted directly into Masters programmes in reputable overseas universities in developed countries.

Therefore for access to technical/vocational education to improve at school level, the attitudes of Ministers of Finance, Education, and educational decision-makers and practitioners must change drastically so that more resources can be channelled into technical/vocational rather than academic education.

6. The Zimbabwean Technical/Vocational Context

Because schools have failed to provide the kind of technical/vocational education required in the workplace, pupils have only experienced it after dropping out of school and joining vocational training centres or colleges run by NGO's or the government, or technical colleges and polytechnics if they possess the high qualifications required. Access is therefore limited to post-school institutions, with nothing below or above.

These technical/vocational institutions can be divided into two broad categories: Youth Training Centres, Vocational Training Centres and private vocational colleges on the one hand, and the Technical/ Polytechnical Colleges on the other.

7. Youth Training Centres/VTCs and Private Colleges

These are run either by NGO's, private individuals, private companies, or by the government. The main focus is on short courses meant to address individual or corporate skill deficiencies for self-employment, or to upgrade competence levels of commerce and industry employees. The curricula of such centres are therefore driven by the needs of the immediate community, either in the informal or formal sector of the economy.

Some of these also offer national courses such as the National Foundation Certificate and the National Certificate.

8. The Technical/Polytechnical Colleges

These are run by the government and offer national courses with centralised curricula and examinations (again designed and nurtured by captains of industry) as follows:

Course	Duration	Product
NC (National Certificate)	1 Year	Artisan/ journeyman
ND (National Diploma)	2 Years	Technician
HND (Higher National Diploma)	1 1/4 Years	Technologist

Courses at Technical / Polytechnical Colleges

Since technical/vocational subjects are not compulsory in the Zimbabwean education system, and also since there is heavy gender stereotyping in the choice of practical subjects where they exist in the secondary schools, very few females, if any, access technical/vocational education in engineering trades in the technical colleges. 99% of the females study commercial subjects, particularly courses related to catering and secretarial studies. Furthermore, many females are disadvantaged because they drop, or perform badly in, prerequisite subjects like mathematics and science before they complete secondary school. As a result the engineering trades in commerce and industry are male-dominated.

9. Recommendations

The suggestions listed below are made on the assumption that existing curricula in the schools and conventional universities, as designed and examined by existing curriculum and examination boards, have proved irrelevant and have made access to technical/vocational education unsatisfactory in these institutions.

Funding

Since governments have been funding expansion in academic education, this should now be deliberately handed over to local authorities for mopping up. The bulk of the funds allocated for development in education, from nursery through primary to secondary school, should be channelled towards providing material and human resources support for technical/vocational education.

Curriculum Development

Existing modes of curriculum design and examinations should be replaced by those that are sensitive to the economies of the SADC countries. Curriculum units run by governments should be facilitators of curriculum construction activities by the national trades, associations and professions formed by commerce and

industry in the private, public and informal sectors of the economy.

Inventory and Utilisation of Existing Institutions

As a starting point, an inventory of all Youth Training Centres, VTCs, colleges and polytechnics should be made in each country to enable access by secondary schools for practical lessons during the holidays, weekends and "after hours", particularly in urban areas where they may exist in abundance. This could be achieved through a well co-ordinated effort from all actors in education.

Centres of Excellence

In addition, centres of excellence in the various SADC countries should be established, and a database developed of courses offered at each centre to ensure ready availability of information and hence easy access by all members of SADC.

10. Gender Equity

- Every pupil should be required to study two technical/vocational subjects at Form I level. Since mathematics, science or both are prerequisites for technical/vocational subjects, this will ensure that both females and males take these subjects seriously at the point of entry into post-primary education, and that the study of maths and the pure and applied sciences becomes a mandatory part of the education culture in SADC.
- To ensure gender equity at technical colleges and technological universities, the compulsory two subjects must be chosen from two groups, made up of subjects associated with the feminine and masculine gender, respectively, as exemplified below:
- Technical/Vocational Subjects: Form I

- Choose two subjects, one from each group:

Group I	Group II
<ul style="list-style-type: none"> • Garment construction • Hotel catering • Bakery • Hairdressing • Secretarial studies • etc. 	<ul style="list-style-type: none"> • Fabrication • Motor mechanics • Fitting • Leather work • Electrical engineering • etc.

- At Form III level, every pupil must opt to continue with at least one technical/vocational subject.
- A scholarship fund should be set up with funds obtained from commerce and industry to sponsor females who perform well in a technical/vocational subject normally associated with males. This will ensure that many girls proceed to Form III and possibly to college or university in that subject.

11. Technological Universities

A parallel system of institutions of higher learning (technological universities) should be established throughout SADC, in competition with conventional universities, to open up avenues for products of technical colleges and polytechnics, in the manner of South Africa's Technikons.

12. Conclusion

There are no illusions about technical/vocational education being an expensive business. It is however believed that if attitudes of government Ministries of Finance and Education, and also those of decision-makers and all practitioners in education change sufficiently, things will improve in the future. Planned change is a process, and the process of increasing access to technical/vocational education in developing countries should have started yesterday.

17 MOLEBATSİ, Mositakgann (Botswana): Training and Updating the Skills of Teachers, Lecturers and Instructors

1. Introduction

Of all the SADC nations, Botswana appears to have a very low standard at all levels in the most specialised type of education: Vocational Education and Training.

This continues to hold down the socio-economic standards of this country. The six vocational institutions, 36 Brigades and the University of Botswana's technical wing cannot adequately provide for the whole range of training required by vocational education needs without high quality performance in vocational institutions. The poor quality of staff in vocational

institutions is the result of very poor conditions of service and remuneration.

In the past, Botswana seemed to have sufficiently qualified personnel to teach and administer the necessary programmes for vocational institutions, thanks to large sums of money provided by donor agencies. However, since the 1990s there has been a gradual erosion of skilled personnel and deterioration in the maintenance of equipment and course standards.

When donors withdrew funding from Vocational Education in the country, most qualified expatriate staff left, to be replaced by others offering vocational

qualifications and cheap labour from poverty-stricken neighbouring countries. There was, meanwhile, a shortage of local staff to bridge expatriate staff departures and arrivals.

The acute shortage of qualified staff in most vocational training institutions in Botswana means that the requirements for the long-term development of vocational education cannot be met. However, it may be useful to consider utilising the education and training expertise of expatriates in the private sector, whose numbers have recently increased, since most qualified locals are generally absorbed by government.

Vocational Training institutions in Botswana offer basic level courses only, corresponding with the qualifications of the teachers. However, the scope for developing more advanced courses at diploma level is hindered by lack of commitment by the national authorities to change and improve programmes currently offered. For example, there have been many recommendations in the Revised National Policy on Education (RNPE) by the Balopi Commission, but little evidence to suggest that any of them will be implemented.

In the absence of any rigid national control over the activities of some vocational institutions (Brigades), standards vary greatly from one institution to another. There is very little, if any, provision to transfer credits between institutions, which means that to complete a programme successfully, or to upgrade themselves, students who change institutions often have to repeat subjects, for example, when moving from a Brigade to a Vocational Training Centre (VTC).

Surprisingly, government supports such training without critically analysing its real benefits. Concern for the quality of teaching and programmes is mentioned in every review but very little action has been taken to improve it.

2. Suggested Regional Co-ordinating Centre

There is an urgent need to set up a centre to monitor and strengthen vocational education in the region. The centre should have both short- and long-term plans, to be reviewed every year and every five years, respectively. The needs of the future could be considered in the long-term plan, with the short-term plan having the flexibility to accommodate the rapidly-changing needs of the system. In consultation with governments and educational institutions, the Centre for Vocational Education would act as a clearing-house for matters such as course content and availability, strengthen teaching and learning by evaluating institutions, set standards by appointing moderators, accredit awards, develop cross-crediting, assist in developing curricular and teaching resources, identify areas of deficiency and arrange for staff development.

The centre, in collaboration with regional and national institutions, could identify and organise the priority of training programmes. It could also facilitate co-operation, consultation and rationalisation within the region between governments, non-governmental providers and aid agencies, and identify institutions providing specific levels of training and equitable access to all SADC countries.

Institutions with facilities to offer advanced level training could provide the advanced training programmes, whereas those with more basic equipment could cater for lower-level training. To cultivate an understanding of this type of rationalisation, professionals rather than politicians from the public and private sectors need to engage in dialogue more frequently. (Secondary education provides glaring examples where the lack of such co-operation and consultation has resulted in many failed programmes.)

It is absolutely critical that the regional Centre for Vocational Education's role be defined very specifically so that it does not become an empire of its own. It must serve as a facilitator, not a dictator.

3. Strengthening Teaching and Learning

Instead of expanding facilities for vocational education, governments should focus on consolidating VET training and enhancing quality.

In order to achieve high standards in training, it is essential to recruit the best possible instructors. This means that the conditions of employment and the reward structure have to be attractive enough to compete with the private sector and reduce the temptation of migration to more developed countries. Furthermore, instructors need to be proficient in their respective trades, with wide experience in using those skills at a high level.

Utilising staff who are trained only to the level that they are required to teach has serious implications for quality. A good trades person does not always make a good instructor: the latter need to be trained at tertiary institutions.

The opportunity for instructors to continuously upgrade their skills through short courses and attachments to similar organisations within and outside the SADC region must be encouraged.

4. Conclusion

There are a number of areas that need attention, but two that are considered central will be discussed. Firstly, lack of co-ordination of vocational training activities (especially in the Brigades) requires serious attention. There should be a consistent long-term plan for vocational training with involvement from all sectors, plus a means to bring together government and non-government agencies engaged in vocational

training so that effective programmes and rationalising of resources may be achieved. Non-governmental agencies should be encouraged to participate at all levels and stages of vocational education planning and delivery.

Secondly, the area of teaching and learning needs urgent attention if the quality and level of courses is to match the resources. Often newly-qualified tech-

nicians do not have exposure to current equipment and consequently face difficulties in performing successfully. Teaching resources also need to be upgraded, and exchange of resources among institutions encouraged. Staff training needs to be carefully planned for both the short- and long-term development of the institutions.

18 MUNBODH, Suresh (Mauritius): The Management of Training and the Role of Donors

1. Introduction

In the developing world, the last decades have seen a will on the part of governments and the private sector to establish a partnership for the development of technical and vocational education and training (TVET). Several countries in the African region have obtained assistance in the form of grants/loans from bi- and multilateral donors to develop TVET. The Industrial and Vocational Training Board (IVTB) of Mauritius benefited from such assistance and was initially very successful in creating the synergy for fruitful implementation of the projects. However, a change at management level brought changes in the way the IVTB was managed. This paper highlights some of the conditions that lead to the successful participation of the donors.

2. Background

The Industrial and Vocational Training Board (IVTB) became operational in 1989. Its objectives are:

- To advise the Minister on matters relating to training;
- To monitor the needs for training in consultation with relevant authorities;
- To administer, control and operate training schemes;
- To provide for, promote, assist in and regulate the training or apprenticeship of persons who are or will be employed in commercial, technical or vocational fields.

One of the first things that the IVTB did was work out an action plan for training, translating its vision into time-bound targets.

In 1990, the Government of Mauritius participated in a meeting of donors to obtain funds for the development of human resources. The meeting was held in Geneva and was attended by the representatives of the World Bank, UNESCO, the British Council, the ILO, the European Union and the *Caisse Française de Développement (CFD)*. The IVTB formed part of the

Mauritian delegation and presented its training plan under the Human Resource Development Programme (HRDP) for Mauritius.

Considerable support for the programme was obtained and the different organisations pledged a sum of nearly Rs 800 million for its implementation. The donors were to finance equipment for cross-sectoral training, staff development, and the technical assistance and materials for a resource centre. The IVTB was committed to its vision of providing and promoting high-quality training in the country, and undertook to put up the buildings and physical facilities needed to implement the programme.

3. The Contribution of Donors

A loan of US\$ 5.4 million was obtained from the World Bank.

The European Union, through a grant of ECU 2.5 million, financed equipment for the upgrading of training centres as well as some technical assistance related to the project.

German Technical Assistance (GTZ) provided technical assistants in the following fields: Automation, Electronics, Welding, Automotive Electricity/ Electronics, Automotive Mechanics and Apprenticeship.

The *Caisse Française de Développement* provided a loan for the construction, equipment and furniture for a hotel and tourism training centre.

The Government of India gave a grant to equip workshops in Radio/TV Maintenance, Air Conditioning and Refrigeration in one of the training centres. It also provided scholarships for training in the hotel sector as well as in a number of technical fields. In addition, it delegated staff on short-term assignments to run some modular courses, especially in the restaurant sub-sector.

The British Council, as well as a few leading UK training bodies, provided short-term consultants to assist with the setting-up of the design centre, precision machining and a print training centre.

The United States Information Service (USIS) provided assistance to run workshops for the training of DACUM facilitators and the development of curriculum materials.

The Government of Australia provided fellowships for the training of managers in the Management of Training Institutions as well as curriculum developers. Assistance was obtained to start the training of Heavy Goods Vehicle drivers as well as the setting-up of training in Automotive Mechanics.

The Belgians carried out a study to start systematic training of maintenance mechanics and technicians.

Assistance was obtained from Canada to start training in Plastics and the computerisation of the IVTB.

In addition the IVTB established links with Germany, UK, France, Belgium, Italy, India, Hong Kong, Singapore, the ACCT, the ILO and the IIEP for training in Electronics, Printing, Hotel and Catering, Maintenance Mechanics, Precision Engineering, Textile and Garment Making and Merchandising, Curriculum Development, Maintenance of Industrial Machines, Training of Trainers and Management of Training Institutions, and for sharing of experiences respectively.

4. Co-ordination of Donor Assistance

All the above activities were planned and implemented between 1991 and 1996. The IVTB itself played the role of co-ordinator of the assistance provided by the large number of donors. The ultimate effect was to improve the quality of training in general and the provision of training in fields not previously available.

The clear vision of the IVTB had provided the lead for the donors to play their roles successfully, in full awareness of the participation of their colleagues in the promotion of training in Mauritius. There was no duplication and no wastage. The IVTB became a success story.

5. Change at Management Level

However, early in 1996, a change occurred at the senior management level. A new Council was constituted and a new Director assumed duty. The new team spent a lot of time criticising whatever had been done before. It lacked a sense of direction, and several projects proposed for the development of training were dropped. For example, the World Bank loan for the establishment of a resource centre was found to be superfluous and was cancelled. Studies were commissioned and seminars and workshops were held to find the way ahead.

Ultimately it was found that the IVTB had too many roles: it was a funding agency, a provider of training and a regulator of training. It was also found that there was a conflict of interests and too many functions for

one Directorate. Different proposals have been made to find a solution to better define the organisation(s) that should be involved in training.

There is no perfect organisation. As seen from the above, initially the different roles were successfully handled by one organisation. The change to a new style of management, in this case, slowed down the activities of the organisation and created confusion amongst its staff. Sometimes precious time is wasted in finding fault instead of taking decisions and moving ahead.

The above clearly portrays how and under what circumstances donor assistance can be effectively used and be of benefit to the country.

6. The Role of Donors

Donors are very supportive of projects/programmes that form part of a whole and are not a set of disjointed activities implemented in the name of TVET. However, their actions have to be co-ordinated to avoid duplication and wastage. Thus an autonomous body responsible for vocational training greatly facilitates the co-ordination function amongst the different donors. The body needs to have a clear vision and a team of competent and dedicated staff with the will to meet time-bound targets.

In the absence of these, many projects suffer during implementation, causing wastage. In several countries (e.g. Mozambique, Tanzania, Egypt) efforts are being made to co-ordinate the actions of the different donors. More often than not, the donors are trying through scheduled meetings to do this themselves. But without local vision and commitment these meetings are rarely successful.

7. The Qualities of the Chief Executive Officer

In the recent past in the developing world, the roles of government and the private sector were distinct, with little communication between them. The last decades have witnessed a new type of relationship emerging in which there is a desire for greater collaboration between the two sectors. However, how to turn that collaboration into a successful partnership is a big challenge. Organisations responsible for training are moving towards establishing such a partnership and their management is becoming more complex. They are faced with a paradoxical situation in which they are expected both to follow procedure, as in the public sector, and to be flexible and deliver, as in the private sector. At times, in addition to the political will, it is the qualities of the Chairperson and of the Chief Executive Officer (CEO) that determine the success of such a partnership.

The leadership and management skills required of the CEO are much beyond what is required in the public

sector or in individual private-sector institutions. The CEO lives at the cutting edge and has to steer with extreme care to keep on course and to see that the country is the winner. According to Warren Bernis and James O'Toole in 'Don't Hire the Wrong CEO', Harvard Business Review, May-June 2000, he needs to:

- Have competence in TVET and human resource development
- Demonstrate integrity
- Provide meaning to the partnership
- Generate trust
- Communicate values.

What determines high-performing CEOs is not who they are, nor what they say, but what they do.

It is not easy to find such people. In the absence of such qualities in the CEO, the Management Council (usually known as Board) does not receive proper guidance and the Council members 'each drive their own cars and in different directions!' The vision is lost and, ultimately, co-ordination and implementation of

the different activities becomes blurred. Under such circumstances it becomes very difficult for donors to have a clear signal of the direction given to TVET and their participation does not lead to the expected goals. Various alternatives are being tried in different countries to make the collaboration more successful. However, there is no substitute for clear vision, commitment, dedication, and the will to succeed.

8. Conclusion

During the last decades, attempts have been made to promote the development of TVET in many developing countries. Great efforts have been deployed to obtain the participation of the private sector as well as donors. Experience shows that donor intervention has been successful where there is a clear vision and when those at the decision-making levels are top-level CEOs from both public and private sectors. This partnership provides high-quality decisions for the development of TVET and for human resource development in the country. In addition, the calibre of the CEO largely determines the success or failure of the collaboration amongst the different stakeholders, including the donors.

19 MUPANGA, Sandford A. (Zambia): Access to TVET – A Case for Zambia

1. Introduction

Zambia has a population of more than 11.4 million. The country has only two universities and twenty-three government-owned technical and vocational education and training (TVET) institutions. There are, of course, a number of non-formal training institutions. Access to TVET institutions is a big problem for many Zambians who, for a number of reasons, are unable to enter TVET systems.

2. Equipment and Infrastructure

In Zambia, the Ministry of Science, Technology and Vocational Training (MSTVT) runs the formal TVET institutions, and other Ministries also run a number of non-formal training institutions.

The institutions under the Ministry of Science, Technology and Vocational Training train craftsmen/women, technicians and technologists. The duration of craft courses is two years, with no industrial attachment. For technicians, it is two-and-a-half years inclusive of industrial attachment, and the diploma course for technologists takes three-and-a-quarter years, again inclusive of a period of attachment to industry. In most of these institutions, the tools and equipment are obsolete except where donors have rendered assistance. Access is therefore limited due to inadequate tools and equipment/infrastructure.

It is important to mention here that the reservoirs for the TVET institutions are the secondary schools, of which there are many. It has proved impossible to admit all eligible students to the TVET institutions.

3. Facilities for Delivery

The facilities for delivery of TVET programmes have been mainly the institutions, which have been offering full-time programmes. Students are required to attend classes from morning to afternoon. The number of students admitted is dependent on the rooms available at a given institution since they are for the most part boarding institutions. But it is interesting to note that this trend is changing, as many students are encouraged to be day scholars.

At the level of Craft, Technician and Technologist, there are also part-time students who follow the TVET courses over a longer period of time than the full-time students, and receive the same certificates and diplomas. Most of these work during the day. It is a pity that as of now there are no other facilities for delivery of the programmes at the three levels in the country.

4. Access and Opportunity

As stated in the 1996 Policy on Technical Education, Vocational and Entrepreneurship Training (TEVET), access to TEVET is open to all Zambians including

- Grade 7, 9 and 12 leavers and dropouts
- Retirees and retirees
- Those who have never been to school
- Zambians with special needs.

Although the policy has since been implemented and the Parliamentary Act is already in place, it has not been easy to increase access for all the target groups as indicated in the Policy document. The ones who benefit most are the Grade 12 school-leavers, despite the fact that many people question the wisdom of recruiting a Grade 12 school-leaver.

The equal opportunities philosophy has been very difficult to implement. For example, in most cases the retirees and retrenched only need retraining, but special courses for them are not yet available: there are only the structured two-year, two-and-a-half and three-year programmes. The same situation exists for women and those with special needs.

As in many other countries today, it has been realised in Zambia that training should be demand-driven. For many years the Government TVET institutions had been offering just full-time programmes that were developed a number of years ago and, until recently, the system was very rigid, with no choices available. This situation is still prevalent in the institutions, although the situation is likely to change under the new policy. There are certainly not enough TVET programmes for all those who need them. This is a big problem which must be addressed sooner rather than later.

5. Suitability of TVET Programmes

As mentioned earlier, the 1996 policy on TVET emphasises demand-driven training. This is important because, for a long time, many of the programmes were not appropriate, being completely at variance with what was happening in industry. For example, while Zambian industry is no longer using manual typewriters, many of the TVET institutions are.

The importance of making TVET programmes appropriate cannot be over-emphasised. But to achieve this, innovative ideas like distance learning are needed so that courses can be offered to individual students without necessarily bringing them to a traditional classroom.

From the above, it is clear that Zambia, and indeed many countries in Southern Africa, have had, and may continue to experience, the problem of access to TVET. Below are some possible solutions to this problem.

6. Innovative Use of Facilities and Equipment

In most of the countries in the southern region, facilities and equipment at TVET institutions are the pre-

serve of full-time students and, in most cases, inaccessible to those doing short courses or pursuing private studies. As equipment is expensive, it is not possible for many companies or individuals to set up their own workshops where private students can do practicals.

It is therefore important that the facilities and equipment provided by the state are made available to all, regardless of whether they are full-time students or not. Even those registered as distance-learning students should be allowed to access the equipment provided in the TVET institutions. All that is required is proper timetabling.

7. Equal Opportunities Policies and Practice

With the adoption of equal opportunities policies and practice, access to TVET can be truly open-guaranteed. It is true that many Southern African countries have such admirable policies in place, but the difficult part is their implementation because of lack of resources.

8. Range and Flexibility of Programmes to Suit All Target Groups

In order to increase access to TVET there should be a wide range of programmes on offer. These programmes should be flexible to suit all target groups. As is well known, TVET is the key to any industrial revolution. If the programmes are not flexible and demand-driven, then the objective of developing a nation is unlikely to be achieved.

Apart from full-time and part-time programmes, workshops and seminars, there is one additional mode of training that must be taken seriously. I am happy to note that during the second International Congress on Technical and Vocational Education held in Seoul, in the Republic of Korea in April 1999, distance learning was one of the subjects discussed. In my view, distance learning, as many countries have realised, can offer a wide range of highly flexible programmes and would definitely increase access to TVET.

I am sure that those countries that have not started offering training using this innovative method will not need to re-invent the wheel as a few countries in Southern Africa have enormous experience in this important area. We must learn from each other.

9. How the Relevance of Programmes to the Local Economy Can Be Ensured

Relevance of training programmes to the local economy is critical. To ensure this, all beneficiaries of training should participate in the design, implementation and monitoring of the programmes. There must be room to change the contents of a particular programme or programmes when appropriate. And both users and teachers should be on the alert to ensure that only relevant programmes are offered.

It is true that many beneficiaries of graduates have left training to the government. Industry in many countries is not concerned with the way government-owned institutions train their future employees. This trend has to change, as the end result is disastrous not only to industry, but to the nation concerned as well.

20 MUTASA, Justin M. (Zimbabwe): Informal Sector Training in Africa

The informal sector in Africa is characterised by unregulated small-scale activities in which the production process and technological base are rudimentary and focused on self-employment. Most of the informal sector enterprises cater for the market in the lower income groups or economic social strata. Therefore the informal sector has the potential to grow, since the bulk of the population in Africa is in the low-income group.

The current winds of change blowing across Africa are the economic structural adjustment programmes that have brought about transformations in both the public and private sectors of employment. Because of globalisation, most public and private sector companies in Africa are facing stiff competition from cheaper and better quality products from Europe, South East Asia and America. Therefore the companies are “downsizing” or “rightsizing” and focusing on their core business. The net result is that thousands of workers are being retrenched from formal employment as companies abandon unprofitable ventures. Some companies that cannot survive competition close down completely and workers are retrenched from formal employment and thrown into the informal sector without the relevant skills to survive.

To make matters worse, some of the present training programmes in Africa have outlived their usefulness. Before and after independence, a lot of training was for formal sector employment. At times, the training and curriculum developed was too academic, and ill-suited to the economic realities that exist in Africa today when the formal sector is shrinking because of the harsh macro-economic conditions and the unprecedented growth of unemployment. This has led to a mismatch in some of the training programmes because they are no longer relevant to economic realities.

As a result, almost all the school-leavers, and those being retrenched from the mines and from public and private sector companies, need some reorientation of their skills to fit into the new informal sector environment, where survival is tougher because it does not offer high wages or command high prices for its goods. Therefore there is a real need to train these people for a “soft landing” in informal sector business.

10. Conclusion

Access to TVET should be addressed. This is not easy in the African setting due to poor economies, but a start should be made. The idea of introducing distance learning where it is not already being practised should be discussed and implemented as soon as possible, since this method of training ensures a country access to TVET for its citizens.

The informal sector is now the biggest employer of labour in Africa. In some cases it employs up to 60% of the total urban employment population. In Tanzania this figure is 53%, in Madagascar 56% and in Zimbabwe more than 53%. Therefore, what is good for the informal sector is good for the economies of African states, since the informal sector is now making a significant contribution to the Gross Domestic Product.

In some African countries, like Zimbabwe, Nigeria, South Africa, Malawi and Cape Verde, partnerships have been formed between the host government and donors in order to strengthen vocational training centres, and other public technical training colleges are offering courses in carpentry and wood technology, welding, metal fabrication, motor mechanics, radio repair, garment-making, bookkeeping, entrepreneurship skills and business development skills. The objective of these courses is to link school-leavers and retrenched to job creation so that they can set up and sustain their own micro and small-scale businesses in the informal sector.

Successful partnerships between the host African government, the donor and the local communities have shown that the informal sector can play a pivotal role in the economic and social development of African states by skills training for self-employment and self-reliance.

Apart from partnerships and capacity-building between host African governments, donors and local grassroots, other strategies that can be used for the success of informal sector business are the integrated approach, training where the people live, trade testing and skills upgrading, sustainable informal sector training, and government legislation to collect a training levy from eligible companies in both public and private sectors.

The government training levy is very effective, especially after “donor fatigue”, when funds have dried up and the donor has pulled out of the partnership. The Zimbabwe Manpower Development Fund (ZIMDEF) is now a key stakeholder in Vocational Training in Zimbabwe and, in Malawi, the Industrial Training Fund oversees the relevance of courses offered by technical colleges, and administers the levy collected from eligible employers. In Nigeria, the Industrial

Training Fund oversees training for entrepreneurship development.

The informal sector in Africa is now the area of the fastest and most significant business growth, employing the largest number of working people and creating

more new jobs per year than any other sector. By reducing rural to urban migration, and therefore reducing unemployment and social problems in urban areas, it is the informal sector that holds the key to the future development of Africa.

21 MWANUKUZI-KWAYU, Christine (United Republic of Tanzania): Training in and for the Informal Sector – A Case Study of Opportunities Industrialisation Centres of Tanzania Training Programmes

1. The Situation of the Informal Sector in Tanzania

Up to the early 1990s, formal wage employment was the most important source of employment in Tanzania, growing consistently at an average annual rate of 3% between the 1960s and 1980s. At its peak in the 1990s the formal sector had 800,000 employees, 80% of whom were in the public sector. However, due to the ongoing civil service reforms and parastatal sector restructuring, public sector employment has declined to about 50% of the total.

Since the mid-1980s, largely in response to the growing economic crisis, the informal sector has become increasingly important as a source of employment opportunities. It is now estimated that about 22% of the labour force is engaged in the informal sector as a main or secondary activity.

In an attempt to provide opportunities for self-employment, the government has initiated a number of employment creation programmes in the informal sector, with technical and financial support from donor agencies. One of these is the National Income Generation Programme (NIGP).

The NIGP is a multi-donor funded programme mainly funded by the United Nations Development Programme (UNDP). It focuses on income-generating skills development and is implemented by the Opportunities Industrialisation Centres of Tanzania (OICT), with technical support from Opportunities Industrialisation Centres International (OICI).

The preliminary needs assessed during the establishment of OICT in 1993 were lack of entrepreneurial and general management skills on the one hand and technical skills on the other. Further studies and reports¹ conducted for the informal sector indicated that small business operators experience the following four main problems: lack of finance to start or expand business activities, lack of basic business management and technical skills, limited access to markets and a poor enabling environment.

Due to this situation, the overall objective of the OICT skills training project was to improve the lives of unemployed Tanzanian youths and adults by providing them with income-generating skills.

Many of the problems frequently observed in the informal sector are compounded by lack of knowledge of how to solve them, though not all informal sector operators admit that training is a major part of the solution to these problems. Nevertheless, the more enlightened informal sector operators are ready to participate in training programmes because they are aware that the ability to solve problems leads to improved productivity and higher income.

2. Potential Areas of Collaboration

Despite this awareness, and despite their willingness to be trained, one of the difficulties experienced by informal sector operators is finding time to attend training sessions. The level of output and productivity for many of them is so low that they are compelled to work full-time, and lack of savings makes operators unwilling to take time off to attend a training programme, let alone pay for it. Under these conditions, the opportunity cost of attending training is very high, and operators would only be prepared to attend training programmes if they perceived that the benefits exceed the cost (often the opportunity cost).

Nevertheless, only about 15% of the operators² indicated that they did not want to attend any training to improve their skills and business management; the rest showed an interest in attending skills upgrading as well as some form of business management.

Enterprise development training might be an area for subregional collaboration.

3. Strengths and Weaknesses of the Country's Response to Challenges

One of the issues that have often been discussed concerning the training of informal sector operators is their ability to contribute to the cost of training. For reasons of programme sustainability, beneficiaries are expected

¹ By the ILO, the Ministry of Labour, the World Bank, the UNDP and other development agencies.

² OICT Baseline Survey, 1996.

to meet part of the cost of training, yet it is pointed out that many of them are too poor to do so. While it is true that the operators are poor, surveys³ have indicated that they are willing and able to pay part of the training costs if they are convinced that the training will improve the performance of their business and be translated into higher returns. The most attractive training programmes for entrepreneurs are those dealing with skills upgrading and business management with a link to credit.

Credit has been used in some programmes as an additional incentive to attract entrepreneurs for training. This leads to a larger number of participants in training with credit facilities, but who do not concentrate on the training and are thus unable to utilise the skills given.

4. Donors Active in this Area in the Country

Apart from the UNDP/NIGP support, OICT has been able to subsidize the cost of training of entrepreneurs through support from other donors. The United States Agency for International Development funded a technical upgrading skills programme which served 442 clients in three administrative regions of Tanzania (Mwanza, Arusha and Dar es Salaam). By linking its training programmes with credit, the African Development Foundation supported OICT in a training programme for 34 senior managers and 14 Board members of 17 micro-finance institutions on Planning and Management of Sustainable Micro-Enterprise Credit in 1999.

Through its Commission for Civil Servant Reform (TCSRC), the Government of Tanzania supported training conducted by OICT for 44 retrenched workers in Dar es Salaam. The African Development Fund supports a government credit project, Self-Entrepreneurs Loan Facility (SELF), for five regions through the Vice-President's office. Training to build capacity of the micro-finance institutions involved is one of the components of the project.

5. Benefits of a Southern African Regional Approach to Training

A subregional approach would allow room for improvement in the effort to promote the informal sector through exchange of experiences within countries. The use of materials and curricula based on regional cultures would attract more participants due to their familiarity. This would also build a stronger regional integration not only between nations, but also between individuals, who would learn from each other.

6. Current Need for Improvement

Time, duration and place for the training programmes must take into consideration the types of business of the beneficiaries. Conducting training programmes during afternoon hours leaves operators free to continue with business activities in the morning, allowing for the two activities to run side by side. A preference for afternoon training was also revealed in other informal sector studies conducted by the ILO.⁴ The survey also showed that the preferred duration of the training programme was two to five days a week.

The identification of training needs and the design of training programmes must likewise take into consideration the age and level of formal education of the beneficiaries. The baseline survey of the Income-Generating Skills Development Programme of OICT indicated that the average age of owner-operators was about 30 years, of employees a little over 20 years, and of employers in the informal sector over 40 years. Hence the training programme considered adults with family responsibilities.

The majority of OICT clients have primary school education. Out of a total of 136 people covered⁵ in the nine groups, only five, representing about 3.6%, had secondary education. It is generally known that the informal sector is a refuge for those who do not find employment in the formal sector, and that these are mostly youths who have finished primary education. The education profile of the operators in this survey is consistent with this phenomenon.

7. Risks of a Southern Africa Regional Approach

The medium of instruction in the training of the informal sector is crucial to the target group. Most of the training manuals are prepared in English and have to be translated to benefit the target groups. About 23% of the clients do not understand any English, 44% understand simple English but cannot speak any, and the remaining 33% can both understand and speak simple English. The implication of this is that most of the operators would be at a loss if the medium of instruction in the training programmes were English.

Translation of the manuals by a regional committee is crucial in order to avoid giving different concepts to people in different countries and regions.

4 Monji R.G. "Skills Acquisition in the Training in the Informal Sector" ILO Interdepartmental Project on the Urban Informal Sector, Discussion Paper No. 3, May 1995.

5 OICT Baseline Survey, 1996

3 NIGP, Programme Evaluation Report (1999); OICT, Impact Evaluation of Enterprise Development Training for Civil Service Reform Programme (1997); OICT, Baseline Survey of Informal Sector Operators in Dar es Salaam (1996).

22 NAICKER, Vinaykomar (Botswana): IT Skills of Educators

1. Introduction

Computers form a major part of the development of mankind. The computer has enabled man to do virtually the “impossible” – monitored space travel, travel at the speed of light, space exploration, to name but a few. Computers have become a time-saving device ensuring that everything from space travel to washing of clothing is completed without much effort.

Yet it is frightening to see that the education system in Africa is not taking computer literacy seriously. A survey was carried out in schools in Gaborone: primary schools, junior secondary schools, senior secondary schools as well as a teacher colleges of education.

2. Findings

- It has been found that at the community schools only 3% of educators are computer literate. 2% of these teachers are expatriates. The Ministry of Education has trained the 1% of educators that are computer literate with a five-day course that does not necessarily constitute computer literacy, but rather computer awareness.
- In the schools that the surveys were done, it was gathered that no primary school pupil is exposed to any computer skills. Teachers are also not computer literate, due to the fact that they feel it does not help with their daily job description.
- The administration of the schools is done manually. 50% of schools have two computers for administration purposes. They were utilised by educators to type out their tests. No classroom in any of the schools where surveys were done was equipped with a computer for enrichment or remedial work.
- In the junior secondary schools, it was found that one in ten schools have computers. At the one school visited, the government donated 20 computers. It was gathered that the computers have been at the school for four months but were not used as part of the curriculum. Hence, there is wastage of an important education tool. The syllabus that has been put into place does not cover all the necessary fields of study. It is a three-year syllabus that tends to place lots of emphasis on clip-art. It is disappointing to have learnt that a computer was looked at as a section that needed to be completed in Business Studies.
- The reason that the computers are not being used at the school is due to the co-ordinator not being thoroughly trained to conduct the necessary classes in computer awareness. The co-ordinator has been for a five-day course that has proved to be insuf-

ficient in allowing the individual the ability to develop confidence with the subject matter in order to carry out the various classes.

- At senior secondary schools, pupils are introduced to computer skills. It has been found that the teachers have only basic computer skills themselves. Computer laboratories do exist in the senior secondary schools. This enables the average student of a public school only three years of exposure to the IT world. In comparison to students in the USA or Europe who have almost 85% contact with computers in their daily learning: from reception to year twelve.
- It is pleasing to note that the private schools that were visited have computer literacy as part of their school curriculum. Students from reception are exposed to computers, by means of games, integrated studies using the computer, remedial as well as enrichment programmes. Formal introduction to computer program language forms part of the syllabus.
- 78% of the educators at private schools are computer literate. Workshops on the usage and implementation of computers in classroom activities are done on a continuous basis. A principal at one private school stated that the ideal situation would be where a few computers are found in each classroom so that students have access to a computer at all times. Students are encouraged to use a computer and the Internet when doing project work.

3. Deductions

- It has been established that Information Technology skills are sadly lacking at the community schools around Gaborone.
- Even though the government has taken the plunge to supply schools with computers, there seems to be no system under which these computers are distributed.
- Teacher training has been neglected in the IT field.
- Computer literacy does not form part of teacher training at the colleges of education unless the training is in connection to senior secondary teaching.
- Teachers are not exposed to any computer programming language that will enable them to be creative in their teaching: either in the use of a computer as an apparatus or tool to develop teaching resources; as an apparatus to enhance teaching in the classroom; to extract information from the Internet to enrich subject matter.
- Many teachers are fearful of using the computer to enhance their teaching methods.

- A computer is viewed as a typewriter to merely type out a worksheet or a test.
- Teachers are not prepared to develop themselves. They wait for the Education Ministry to suggest a course that they should complete. If a field of study does not affect the specialist area of teaching, they are not prepared to self-improve.
- The early exposure to computers places children in good standing for future career choices.
- It is imperative that at all levels of education computer awareness is inculcated into the education system. This allows the country an opportunity to tap into own human resources rather than depending on the outside world.

4. Suggestions

- Change is difficult. This is an established fact. Teachers need to be helped in this field by giving them the knowledge to allow the computer to become a friendly tool.
- The Ministry of Education, in partnership with private institutions, needs to become involved with the in-service training of teachers.
- The government before the implementation of equipment /curriculum/ procedures should provide in-depth training of all personnel that are involved. The cascade method of training has not been successful. Teachers that do not go to the course are found to be lacking in know-how.
- Training is the key to success. IT skills need to be developed in earnest in the educational scenario.
- Educators need to be motivated to take action for themselves so as to become involved in developing their skills in the use of the computers.
- Provide enrichment programs that teachers can use fruitfully for self-motivation and development as well as improving the methods of teaching.
- IT offers numerous creative methods of teaching and learning that teachers can take advantage of.
- Introducing IT skills to primary school children has great advantages. It provides children with a world of knowledge that they can enjoy. Computers provide an exciting way of staying in touch with the world. Children are exposed to hands-on training. The computer enables them the opportunity to explore the unknown without fear. Mathematics/ technology/languages can be learnt and taught with enthusiasm and self-correcting devices. This enables children to learn at their own pace.
- A support system in alliance with the business world should be set up. This will provide easy access to enable educators the chance to build on their confidence levels and new methodology.
- Continuous workshops need to be held. These workshops must be conducted by qualified IT personnel.
- Computers are an excellent teaching tool for disabled students. According to Christopher Nolan in his book *Dam Burst of Dreams* – “If computers science can give me a voice, then everyone else who is similarly afflicted stands a chance of being freed.”
- Establish a twinning system where private schools and public schools can benefit from one another. Educators from community schools are encouraged to seek help from their colleagues in the private schools to improve on their IT skills. A total segregation between the two sectors of schools should be discouraged.

5. Conclusion

- Educators need to understand that they are responsible for their own learning.
- They are free to determine their own goals. Each educator needs to reflect on their own experiences in life and they need to decide on what they would like to focus their energies on.
- IT training for teachers is vital as a tool to train the future generation effectively.
- The wagon needs to start rolling in earnest. We need to tap into our future resources so that the African countries can become a force to be reckoned with in the information technology arena.

23 NDUNGURU, Bernadetta (United Republic of Tanzania):

New Vocational Education and Training System – the CBET Concept

1. Background

Goals of Vocational Education and Training (VET)

The aims of Vocational Education and Training are to provide the work qualifications and skills demanded in

a given social and economic context, and to contribute towards the implementation of national policies with regard to employment promotion, poverty eradication, private sector promotion, increased productivity, added value and enhanced competition in both local and global markets.

VET performance is therefore rated as successful if it is capable of ensuring relevance and expected quality, accessibility, affordability and sustainability, and is both externally and internally efficient and effective.

Why VET Reforms?

Originally VET was supply-driven, government-controlled and financed, and was based on knowledge. This system fitted well with the planned economy: inadequate links between training and the real world of work were not an issue, and graduates readily found employment in the labour-intensive public sector.

The VET operational context had to change with the adoption of a demand-driven market economy whose users bear the costs and manage the operations. The importance of linking training to the world of work could not be over-emphasized.

Several reviews of the original VET therefore led to the 1994 VET Act, whose key features are that VET should be:

- Demand-driven, to service both formal and informal demands (being accessible to different target groups)
- User-controlled, and managed through a tripartite Board
- User-financed through a VET levy of 2% of the payroll
- Decentralized
- Co-ordinated and directly supervised through an autonomous body, to ensure quality of delivery.

The establishment of a Vocational Education and Training Authority (VETA) in 1994, and the subsequent adoption of a new Vocational Education and Training System are therefore the result of changes in the socio-economic environment of Tanzania that necessitated the corresponding adaptation of VET. To date, VETA has made significant strides in transforming the original supply-oriented VET system into a demand-driven VET system.

The New VET System's Focus Is on Providing

- Flexibility in mode of delivery in terms of duration, entry qualifications, and exit to the labour market
- Close alignment with job demands in both self- and wage employment so as to address skills requirements in the two areas
- Integration of business and entrepreneurial skills to meet the needs of real work situations, and translation of vocational skills into business and enterprises

- Integration into the country's social and economic policies and plans so as to ensure accessibility to different target groups.

2. The Competence-Based Education and Training (CBET) Concept

The move from traditional VET has been made possible following the adoption of the Competence-Based Education and Training (CBET) concept by the VET Board in December 1998. This concept enhances effectiveness and efficiency of VET through a comprehensive approach that enables training to be adapted to suit the needs of the workplace, allowing for the application of technical skills in business, thereby ensuring that they are appropriately market-oriented.

- Modularised training that allows the trainee to choose specific individual training units according to the skills needed for employment, or to go for the full cycle of units. In the first case, the successful completion of each unit is certified separately; in the second case, trainees receive the full trade recognition after completion of all the required training units. Within this process the existing formal training curricula are being modularised.
- Non-formal training in which the training packages are specifically designed for selected target groups, either by using existing training units of the curriculum or by developing tailor-made training programmes. The timing of non-formal training is adapted to fit into the trainee's commitments as a business operator or employee.

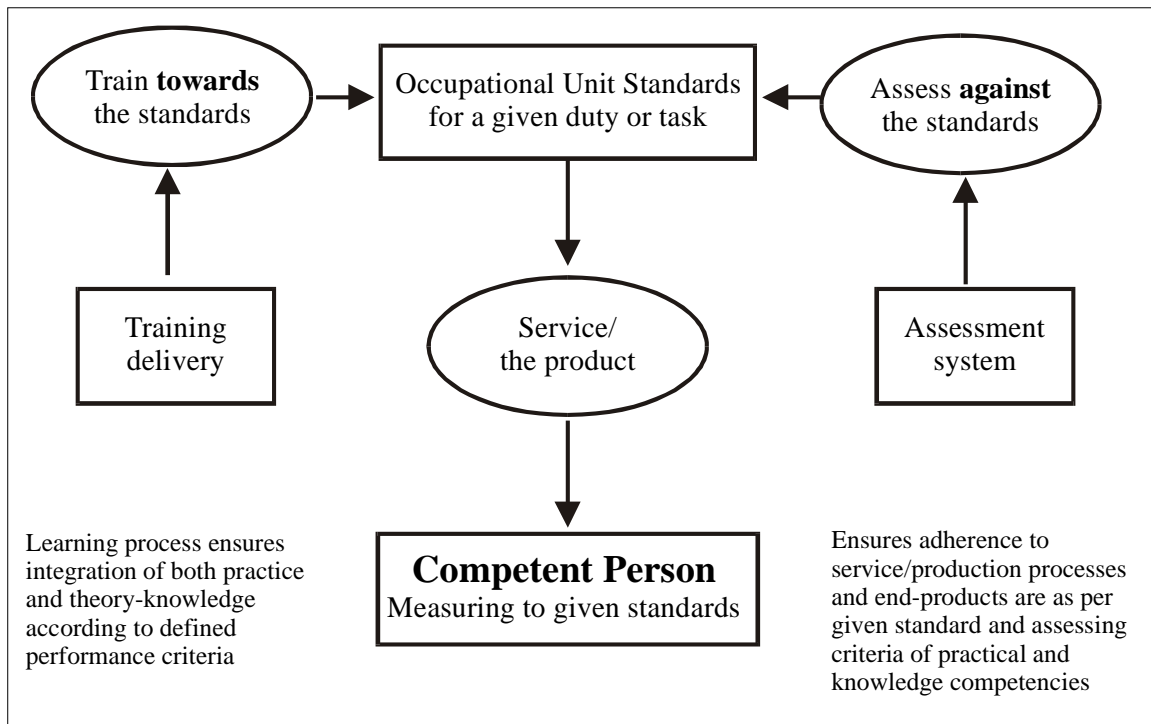
The concept covers a number of trades in regular demand, with predetermined competencies recognised by the employers and the training providers. It integrates technical and critical cross-cutting skills to produce a complete worker who fits into a customer-oriented economy.

As distinct from the traditional knowledge-based VET, CBET hinges on the following key features:

- Training and assessment of outcomes are based on standards.
- Training standards are derived from an analysis of occupational tasks to form a DACUM Chart of employment requirements.
- The analysis of occupational tasks pays particular attention to the expected performance criteria.
- Competent persons who are well acquainted with a given job carry out this analysis, involving external expertise.
- Before use, standards are approved by Trade Advisory Committees.

- The instructor has the responsibility for translating the standard into a learning experience to enable a

trainee to achieve given performance criteria.



The CBET concept in a nutshell

3. Making CBET Operational

In order to put CBET into practice, VETA has adopted an occupational Unit Standard format. This format looks at a total occupation and its subsequent employable tasks, as analysed in a Dacum chart. The benefits of this approach are that it gives a strong base for modularised training in which the trainee may select specific units, the full cycle or units, or mix units from different occupations. The approach gives room for narrowing, broadening and even multi-skilling, depending on employment requirements. Trainee enrolment is based on assessment of prior knowledge, and exit determined by the trainee's satisfaction that he has achieved what he wanted for job performance. The occupational unit standards therefore form the basis for both formal long courses and non-formal short courses as demanded.

4. Implications for Assessment and Testing

Unit-based assessment has introduced flexibility in testing. Assessment is continuous and carried out once a given unit-standard is achieved. This enables immediate feedback to the trainee and therefore enhances trainee motivation, since knowledge of progress and success becomes an integral part of the learning process. Since units are constructed from employable tasks in a particular occupation, a cluster of units

formulates an occupational area, while description of unit-based qualifications defines the different levels.

Unit-based certification/accreditation gives flexibility to those wishing to be certified for a particular task/job. However, for the purpose of career progression, national certification will be provided to accredit a level-based qualification. The processes will therefore involve:

Unit certification by the principal and instructor to sign off a trainee, verifying competence achieved, with nationally accredited assessors validating the qualification.

For those on long-term training, a logbook will be filled out after every unit, so as to certify competence achievement. Once again an external assessor will verify attainment of required competence at a given level.

A level-based certificate will be issued based on achieved required units in a given occupation.

The procedure is to conduct national tests at three levels, based on modules, which themselves are based on a cluster of units. Hence certification based on achieved competency for a unit would mean a step towards accreditation. Regulation occurs through the use of external assessors who are nationally registered and vetted. The assessors are to be approved by Trade Advisory Committees.

5. Use of Levels in Qualifications

The new system has adopted the use of levels so as to differentiate jobs/occupations from one another through classification of degree of difficulty and level of skill in application in the work situation. The three-level definition therefore cuts across all occupations of the same level.

For example:

Level 1: Basic

Covers limited range of mainly routine, repetitive and predictable work activities. The level carries limited responsibility with little or no authority. The worker at this level requires constant supervision.

Level 2: Intermediate

Covers competencies in a range of work activities and is more complex, including non-routine activities. The worker may have some degree of responsibility and authority, and requires general supervision and quality control.

Level 3: Advanced and Supervisory

Consists of a broad range of varied and complex non-routine tasks, which are performed in varied contexts. At this level, the worker acquires more responsibility for quantity and for other staff, and is involved in problem solving.

6. Applicability of Unit Standards for Training for the Informal Sector

One of the goals of CBET is to have employable unit standards-based training that meets workplace requirements for self-employment, and that permits the interruption of training between training sequences (Modules and Unit Standards). The latter is a great help for socially disadvantaged target groups. Alongside the traditional long-term courses for the target group of school-leavers, short-term training courses can also be offered to other groups seeking employment or improving their performance.

The system of Unit Standards is designed to meet the training needs of various target groups in the formal and informal sectors, since flexibility in entry and exit is not based on given academic qualifications but rather on performance criteria assessments. Recognition of prior learning and training, at either the centre or the workplace, is admissible. The CBET concept is based on incorporating all competencies required to enable a trainee to perform. This allows curricula to be adjusted to fit the different competence demands of different trades.

7. Quality Assurance Parameters

The CBET approach provides self-regulatory and transparent quality assurance parameters at all levels:

- Standards generation level, in which work is done by experts and approved by Trade Advisory Committees to ensure that standards reflect work expectations
- Qualifications/skills achievements are measured against a prescribed standard. This is not based on a grade, but is pass or fail
- Standards offer opportunities for comparability in the local and external market
- Assessment carried out at training centres is verified by external assessors, who are vetted by Trade Advisory Committees
- At the end of the day it is the user who decides which courses are offered, with demand determined by whether they have contributed towards job creation, and whether they are contributing to productivity.

8. Experiences from CBET Implementation

CBET connotes a shift from knowledge- to performance-based training and, at a regional meeting for East and Southern Africa in August 2000, it was shown that although all countries were at one stage or another in implementing CBET, Tanzania was leading.

Benefits

Benefits already experienced from test-piloting include:

- Cost efficiency and effectiveness
- Improved relevance of training through comprehensive content to fit self- and wage employment requirements
- Transparency and consistency in assessment and qualifications assignments
- Competencies attained in a much shorter period
- Expanded coverage
- Flexibility, and adaptability to both formal and informal sectors

Self-regulation and quality assurance through use of standards, and involvement of stakeholders in standards generation and external assessment.

Instruments and Tools That Can Be Recommended to Other Countries

- Use of DACUM chart as a basis for unit standards development

- Use of occupational unit standards as a framework for assuring quality of VET and VET provision
 - Integration of business and entrepreneurial skills so as to motivate VET graduates towards job creation and self-employment
 - Introduction of target-oriented training focusing on those with limited access to VET, e.g. girls, women, youths and rural populations.
- 9. Challenges**
- How to handle the large demand for socially-oriented training for the informal sector and unemployed youth in a bid to promote the private sector.
 - How to develop concepts for organising and developing small and medium enterprises.
 - How to address the insufficiently-supported sectors such as agriculture, hotels and tourism, service and finance, mining and food processing.
 - How to change the attitudes of providers.
 - How to develop a qualifications framework that has horizontal and vertical linkages and qualifications definitions for easy portability, both locally and in the region.
 - How to integrate entrepreneurship training in VET, since most of the entrepreneurship courses are currently organised outside the framework of regular technical training.
 - How to ensure financial sustainability for VET providers, particularly considering that Vocational Training is also a social function and cannot be financed and managed through training fees alone.

24 NDUNGURU, Bernadetta (United Republic of Tanzania): Integrated Training for Entrepreneurship Promotion (INTEP) Reaching the Target Groups in the Informal Sector

1. Introduction

As in many other African countries, the formal labour market in Tanzania is small and decreasing even more as a consequence of the economic and social adjustments during the last fifteen years. The formal labour market is profoundly imbalanced as 45% of the total population is under 15 years of age. More than 500,000 young people are entering the job market each year while the number of jobs created in the modern wage sub-sector may perhaps be less than 30,000 per annum. In 1990/91 the informal sector (IS) offered employment for 2.4 million people, which was more than twice the number employed in the formal sector (government, parastatals and private firms). Only 2.1% out of the total number of operators had formal training.

Formalised training for the formal sector is a national requirement; however, it has only very limited relevance to the employment chances of the majority of people who generally have no access to training. As a supplement to formal training, integrated non-formal training can help to qualify various target groups to acquire technical, business and communication skills, but it must be job- and market-related, short and inexpensive.

2. Training Approaches

The Vocational Education and Training Authority (VETA) in Tanzania has adopted a new training system, the Competency-Based Education and Training

(CBET) system. The CBET approach enhances effectiveness and efficiency of VET through:

- A comprehensive approach that enables adaptation of training to the needs of the labour market. For example, entrepreneurship training and cross cutting skills are an integral part of training delivery to allow translation of technical skills into business and to ensure the desired market-oriented competency.
- Modularised training, which allows the trainee to choose specific separate training units according to the skills needed for employment, or to go for the full cycle of units. In the first case, the successful participation of each unit is certified separately, in the second case, the trainees will receive the full trade recognition after the completion of all the required training units. Within this process the existing formal training curricula are being modularised.
- Non-formal training whereby training packages are specifically designed for selected target groups they address, by choosing existing training units of the curriculum of the respective occupation or developing tailor-made training programmes. The timing of non-formal training is adapted so as to fit into the trainees' commitments as a business operator or employee, i.e. in evening classes. The successful participation in a course is certified accordingly. Lately, VETA has been increasing its offers of non-formal training, especially for commercial trades and to a lesser extent for technical skills.

3. Integrated Training for Entrepreneurship Promotion (INTEP)

INTEP is a target group-oriented training facilitation. Among the components of the VET concept, this one has been initiated most recently. The objective is to create training offers which target existing MSE operators within the informal sector and with a special focus on gender balance. Slightly different from the CBET concept, the target group is taken as a starting point from which local and regional market options and employment opportunities are assessed.

For the development of INTEP packages the following aspects must be taken into account:

Desired geographic scope. For the purpose of developing training offers geared to the needs of the informal sector, a local or, at most, regional perspective seems most suitable. However, even if the major focus is on the local level, an efficient linkage between local producers and the regional markets should be taken into account as a decisive criterion for the prospect of local initiatives.

Situation of labour and goods market. In order to ensure employment effectiveness, the labour market and technological situation in the environment of the target groups have to be observed and market niches or trends of saturation identified.

Characteristics of the target group. The analysis should focus on the socio-economic environment in which the individuals and groups live, as well as characteristics such as age, sex, education, work experience, educational and training background, interests and ambitions. This has to be assessed through analysis and thorough dialogue with the group.

Existing local training institutions and support structure. The review should lead to an overview of level of qualifications, training location and duration, training cost, certification, the balance between theory and practice, the number of trainees, and the recruitment of trainers. In many cases it may be necessary to include qualification and support for the planners, facilitators and trainers of those institutions.

4. Trials

Following the development of this methodology, initial trials were carried out in several regions of Tanzania to pave the way for situation-specific replication of the methodology. It was the intention of the pilot programme to reach target groups with low levels of education and to give a special thrust to the development of training options for girls, women and youths.

For the pilot phase, the field of preservation, storage and processing of food was identified as an area of untapped marketing opportunities. For the curriculum planning process, competent institutions were identi-

fied that were interested in participating and competent to do so. Planning teams consisting of representatives of different training providers, individuals with experience in planning, training and food processing, as well as in marketing and packaging, designed the specific training programmes following a special methodology.

On the basis of the above insights, an INTEP programme, including a curriculum outline and training areas and features, was designed. The matching of the needs and qualifications of the target groups with the demands of markets for labour and goods was essential.

In order to reach the identified target groups, VETA aimed at enabling those institutions with new competencies to function as initiators and implementers of such tailor-made training programmes. Summarised, the services delivered by VETA/GTZ were:

- Training of VETA staff as facilitators
- Targeting of beneficiaries (selection/approval of suggested target groups)
- Improving the qualifications of training providers in planning and implementation of training
- Development of training packages
- Financing, co-ordination and evaluation of pilot programmes
- Strengthening links to other relevant service providers (micro finance, business counselling, etc.).

The approach seems to be promising, as the costs involved are relatively low. The advantage of it is that curricula are not standardised and therefore can be readily adapted to local circumstances. First experiences also show that women's strategic training needs with regard to employment promotion can be quite easily catered for with this approach.

However, such a planning methodology is much more difficult to manage than supervising the implementation of a standard curriculum. Qualified trainers have to be identified for the "new skills" to be imparted to the target groups. The financial sustainability also seems difficult to achieve; in particular, if it is a defined goal of the programme to reach poorer segments of the society. Although the participants are expected to pay fees for the programmes, their contribution is still very low. A political decision will have to be taken as to which funds will be made available to subsidise these training programmes for the more vulnerable groups.

5. Strengths

INTEP is a suitable approach to supplement the formalised vocational education and training designed

with the CBET concept in order to qualify more and different target groups for self-employment.

INTEP:

- Focuses on operators as a target group for potential growth and improved productivity
- Analyses labour, goods and service markets against the competence levels of the target to ensure that the desired objectives of goods and services provision are met
- Ensures a comprehensive approach with an environment conducive to the achievement of its goals; i.e. that technical skills should be a part of Business Development Services (BDS).

6. Future Prospects

On the basis of the positive results so far, VETA intends to consolidate the INTEP concept and expand its programmes. Some of its aims will be to:

- Introduce the method in all VETA regions, train VETA staff, and involve more training institutions
- Expand the training activities, emphasising regional or local demands and options

- Assess the impact of other training initiatives by self-help organisations, community development projects and small enterprise associations, and create linkages with them
- Focus on economic growth areas with employment opportunities for the disadvantaged, such as small scale mining, agro-product processing, horticulture and export, educational training of child labour.

To enhance its impact, VETA intends to exchange experiences with, and learn from, other countries of the EAC and SADC regions whose programmes have achieved success in these areas, such as ISTARN in Zimbabwe, STEP in Zambia, etc.

Finances for training are generally scarce, and as contributions from the disadvantaged target groups will always be limited, the training programmes will have to be subsidised as a social responsibility. VETA will therefore prepare proposals and invite bilateral and international donors to contribute to INTEP programmes in order to contribute to employment promotion of the poorer people in Tanzania.

25 RAZA, Stephen T. (Zimbabwe): Unemployment

1. Executive Summary

For a quarter of a century, the employment situation in Zimbabwe has attracted the attention of policy-makers and economists. An annual population growth rate cited at 3.6% by the 1969 census combined with sluggish employment growth gave rise to widespread concern in the 1970s that the country faced an alarming unemployment crisis. After independence in the 1980s, people thought things would change for the better.

Politicians were elated because they had managed to acquire and sustain political independence. Educators sought Education for All, turning out unemployable "O" and "A" level graduates who eventually joined the former guerrillas, the retrenched, and the uneducated unemployed who were already on the streets. Meanwhile, the businesses of white industrialists stagnated due to the uncertainty brought about by majority rule. Due to management inexperience, no industrial development programmes were designed to accommodate the changing political and educational needs.

This paper looks at and seeks to discuss the trials and tribulations that Zimbabwe went through in trying to address the unemployment situation; it examines the current situation and makes proposals for ways in which Zimbabwe and SADC can address the problem.

2. Background Information: Analysis of the Past and Present Unemployment Situation in Zimbabwe

Although reliable unemployment figures were not readily available, at the end of 1984 the Ministry of Labour, Manpower Planning and Social Welfare estimated unemployment at 357,000, or 12.5% of the labour force. However, if poverty was used as a yardstick, unemployment was probably underestimated as figures excluded the 1.4 million communal farmers. There was also a substantial amount of underemployment in the non-formal employment sector.

The Southern African Political and Economic Monthly, SAPEM (June 2000), estimates the present population of Zimbabwe at 12.5 million. Unemployment is pegged at 45% in SAPEM, an increase of 32.5% from the 1984 underestimate of 12.5%.

These figures do not take into consideration school drop-outs and school-leavers. The figures of retrenchees between the years 1999 and 2000 could be even more alarming if the following factors are taken into account:

- Most companies folded in the year 2000 due to harsh economic times, uncertainty created by pre- and post-election violence and/or the land redistribution issue.

- White business owners who felt threatened by the land policy decided to close, thus creating further unemployment for the farm workers.
- Listing of some farms for acquisition resulted in previously employed farm workers joining the ranks of the unemployed.

It must be noted that these recent developments do not provide accurate unemployment figures, as some of the workers are going to be resettled on the acquired farms. However, the argument still remains whether to consider resettled people as employed or not. I should also mention that the issue of unemployment, not the land issue, is the subject for discussion here.

3. Youth Unemployment

Youth unemployment in Zimbabwe arises from teenage youths who drop out of school either for lack of funds to continue their education, perhaps because they have lost parents to the Aids pandemic or simply due to economic hardship, or because of a shortage of places in tertiary education.

According to the Ministry of Finance, Economic Planning and Development, youth unemployment rose from 29,588 in 1983 to 156,622 in 1986. By 1994, the figure had almost doubled to 309,826.

Although these figures do not adequately reflect the number of job seekers entering the labour market between 1983 and 1994, they underscore the severity of unemployment for the following reasons:

- The figure of 357,213 or 12.5% who were unemployed in 1984 is ignored.
- Students who drop out before "O" level are excluded. Since the educational system is transitional because it is undergoing rapid expansion, it is impossible to quantify the number of potential job seekers in this category.
- The drift from formal sector communal and commercial agricultural employment that could be anticipated is also ignored.

All these factors reinforce the fact that the unemployment figures are even greater than people realise. The rate of school-leavers, although underestimated, rose continuously from about 30,000 in 1993 to 300,000 in 2000 – an increase of 900%. This figure will continue to rise as access to education increases with its democratisation. The projected unemployment amongst school-leavers between 1986 and 1990 was about 60%, and indications were that this figure would continue to rise. From 1998 onwards, it was estimated that only 5-7% of secondary school graduates went on to tertiary education. In fact, SAPEM (June 2000) put it at 7%, which means that 93-95% of school-leavers join unemployment or formal employment, the former being most probable.

4. Current Initiatives to Solve Unemployment

The democratisation of primary and secondary education led to an increase in "O" level graduates. With only two tertiary institutions to graduate to in the early 1980s, temporary measures were put in place to counter this increase. Eight more tertiary institutions were built to offer technical skills training in addition to the teacher training colleges that were already in existence. Most of the "O" level graduates were accommodated in technical skills training. This solution only managed to postpone the problem until the students had completed technical training.

After graduating from technical colleges the graduates could not get jobs because of the mismatch between supply and demand of labour, stagnating industry and lack of entrepreneurship development and demand-driven training.

In 1998, after realising that unemployment could not be solved by technical skills training alone, whether in institutions, apprenticeships or through skills up-grading; the Minister of Higher Education announced the establishment of Vocational Training Centres to offer democratised skills training and entrepreneurship development to create enterprises as well as employment.

5. The Vocational Training Centre (VTC) Concept

The rationale behind the creation of VTCs was four-fold:

- To accommodate annually the 300,000 school leavers with no opportunity or skills for employment, including self-employment
- To offer entrepreneurial and technical skills to primary and secondary school drop-outs, retrenchees and the disadvantaged so that they might become involved in the mainstream of the economy
- To train people in the informal sector who had been completely neglected during the colonial era in favour of the formal sector, despite the fact that the former contributes more than half the country's GDP and employs three-quarters of the job seekers
- To alleviate unemployment amongst youths and disadvantaged women.

Strategies for the establishment of VTCs include

- Partnership with local authorities to ensure efficient management of VTCs by those on the ground, and as part of the decentralisation process adopted by government in order to reduce bureaucracy
- Use as VTCs of existing structures such as army barracks or youth centres to reduce costs and bring training to the people

- Co-operation with other parties such as donors, churches and NGOs, and through partnership with existing trainers
- No residential training to reduce costs. Training to be brought to the people through the establishment of two VTCs per province and at least one per town, with two each for Chitungwiza, Harare and Bulawayo
- Community-oriented curricula, demand-driven short and long courses
- Democratisation of training: open entry with literacy and numeracy as the criteria for selection
- Entrepreneurial skills a requirement
- Establishment of VTCs to be spearheaded by parent colleges already in existence
- Lecturers to emphasize practical skills acquisition.

In Zimbabwe, the establishment of VTCs was jump-started with funding from UNESCO for intensive skills training for self-employment in Bulawayo and Gokwe. The author was involved in spearheading this project in Bulawayo. Other funds to run the VTCs came from the Zimbabwe Manpower Development Fund, ZIMDEF. The project has achieved some measurable success in dissuading school-leavers from roaming the streets or crossing borders to seek jobs there.

The new approach to training, the Zimbabwe Self-Employment Skills Training Model (ZSSM) designed by St. Raza, is given below.

(1) Pre-Training – Product/Service Identification and Selection

- Business opportunity guidance
- Market survey
- Industrial attachment

(2) Training – Technical Skills Acquisition Based on Identified Opportunity

- Entrepreneurial skills acquisition in Awareness of Entrepreneurship, Achievement Motivation, Entrepreneurial Skills and Management Training and a Survey of Industrial Environment.

(3) Post-Training Support Services

- Attachment of students/graduates to Production Units of the college to imitate real-life self-employment, raise start-up capital and create confidence and experience in the venture whilst under the guidance of lecturers
- Establish backyard business
- Self-employment in factory shells

- Creation of Graduate Self-employment Support Systems (GSSS), giving:
 - Technical support and follow-up by lecturers and industrial experts to ensure technical viability.
 - Managerial follow-up by lecturers and industrialists to ensure managerial and financial viability.
 - Infrastructural support – Local Authority to ensure creation of factory shells, land and building support at affirmative action rates.
 - Financial support from NGOs, micro-finance houses and banks to be solicited.

Committees representing these four areas need to be set up to offer support and/or follow-up.

6. Proposed Method of Establishing VTCs

- Identification of existing facilities through local authorities.
- Inspection of the infrastructure by experts.
- Conduct of needs analysis to determine demand-driven courses required by community.
- Determination of venues for the courses.
- Appointment of lecturers based on the courses in demand.
- Enrolment of students based on identified opportunities in the market.
- Order and purchase of appropriate consumables and of basic machinery that cannot be made by the students themselves.
- Start of training based on identified opportunities and entrepreneurial skills.
- Offer of post-training support to ensure self-employment.

Grierson (1997) concurs with his three stages: Selection, Training and Self-Employment.

7. Conclusion

The author feels that the use of VTCs as a way of reducing unemployment can be adopted by SADC member states in addition to the conventional training methods of institutional, apprenticeship and skills upgrading.

John Grierson, in *Small Enterprise Development Vol. 11 No. 3* (Sept 2000), recognised that training for self-employment should not be mistaken for vocational training in general. One cannot expect that once technical skills have been acquired, self-employment will automatically ensue. The Zimbabwe situation is witness to this. Although many are graduating from technical colleges, they still go back to the streets for lack of employment. We now need not just skills for wage-

employment, but also technical and entrepreneurial skills for enterprise development. This programme

needs to prepare graduates for the scourge of unemployment, which is a growing threat.

26 TSVERE, Maria (Zimbabwe): The Implications of HIV/AIDS Education on TVET

1. Introduction

UNAIDS estimates that 95% of all HIV/AIDS infected people now live in the developing world, which has also experienced about 95% of AIDS-related deaths (UNAIDS 1999:3). In Zimbabwe it is estimated that one in every four sexually active people is infected with AIDS. Statistics also show that the 25 to 39-year-olds, the most productive and sexually active age group to which belong students and teachers at technical and vocational institutions, is the most infected. In sub-Saharan Africa about 92% of infections are transmitted by the horizontal mode of transmission (through heterosexual contact). Research evidence from an AIDS baseline survey conducted in Zimbabwe for secondary schools revealed that 40% of girls have sex before they reach Form Three (MoE/UNICEF, 1996: v). The TVET system draws its students from the secondary schools.

2. Factors Contributing to the Spread of HIV/AIDS

Greater understanding of factors leading to the spread of HIV/AIDS is crucial in determining intervention strategies to curb the spread of the virus. Apart from the bio-medical factors, sexual behaviour, social and economic factors seem to affect most of the students and teachers in the TVET system. Unprotected sex, lack of communication on knowledge of partners' HIV/AIDS status, sexual practices, the extent of alcohol consumption and concurrent partners are common factors in the TVET system. The low level of education, lack of knowledge and information about HIV/AIDS and safe sex, all contribute to the poor condom use by most students and teachers in the system. Gender roles, female employment and acceptance in the TVET system's SMT section, status and income inequality all affect the manner in which HIV/AIDS is perceived in tertiary institutions where TVET is located. TVET systems require that their students have some industrial experience before they graduate. This obliges them to be attached to industry during their course, a situation that exposes them to additional risks associated with HIV/AIDS transmission.

Being quintessentially a social epidemic, AIDS impacts on social norms, development and government efforts. Developing countries are characterized by lack of employment, which is about 50% in Zimbabwe and perhaps in most others. Income distribution has a strong influence on the degree of control students in

TVET systems have over their sex lives. Most people, including those in the TVET system, are also looking for ways of improving their lives in terms of health, education and recreation. Meanwhile the rich, powerful, mobile and less-constrained few can afford the lifestyles of their choice. TVET students fall prey to some of them in an effort to raise their nutritional levels. Those students who are really poor, orphaned, or are parents, suffer from being unable to care for their families because of the high cost of living. Furthermore, the paternalistic Zimbabwean culture forces some female students to look for men to marry them. They are obliged to have children even before they have completed their course.

All these factors make students and teachers in TVET systems work hard and strive for better lives so that they can take control of their sexual activity and be saved from the effects of HIV/AIDS infection and AIDS.

A person with the virus is affected emotionally as well as physically. Teachers and students in the TVET system also face the challenge of having to deal with their HIV/AIDS status. This situation is most prominent amongst teachers, who become ineffective and withdrawn or even disappear when they become too noticeably ill.

3. The Effect of HIV/AIDS on TVET

The World Bank (1992:69) projected that by 2010 Tanzania will have lost 14,460 teachers to AIDS. Statistically, this figure accounts for two-thirds of the annual output of the teacher training colleges in the country. TVET systems demonstrate a similar trend today. In Zimbabwe there seems to be no decline in the number of HIV/AIDS infections, and institutions are experiencing a steady increase in the number of ill teachers and AIDS-related deaths throughout the education system. An analysis of female student records in Zimbabwean colleges (ED46) has shown that an average of 20% of female students dropped out of college due to pregnancy, indicating the degree of unprotected sex in these institutions. The major problem with the teaching profession is that it is difficult to simply terminate an ill teacher's services, yet teaching is one of the most highly paid professions. High salary costs mean that the Ministries of Education have to bear the burden of supporting unproductive lecturers and teachers, and compromise the quality of education by hiring part-time or temporary substitutes.

The loss of a lecturer or teacher implies loss of valuable experience. There is very little information on how many are actually ill, affected by or have died from the pandemic. Such information greatly influences planning for cost-effective employment, and HIV/AIDS education strategies for TVET systems. If HIV/AIDS creates such a huge problem for the education fabric and structure, governments can no longer ignore their responsibility to provide intervention strategies that foster positive social behaviour and that help the teacher and student in the TVET system to cope with the social pressures created by the disease. Governments are vital agents of behavioural change in the TVET system. The TVET curriculum must create space for an HIV/AIDS education that encourages positive changes in behaviour and attitude through life skills taught using effective and appropriate teaching methods.

Teachers and lecturers are greatly affected when they are working with ill colleagues, teaching orphans and dealing with sick relatives amidst their own fears concerning their HIV/AIDS status. Very little has been done to address these concerns, but recent research has revealed that 25% of the teachers studied worry about their own HIV/AIDS status, 40% would like to talk about their concerns, and only 33% have been able to discuss their problems with friends or relatives (Siamaiza and Chiurla 1999:11 in SAFAIDS).

These are the same teachers who are expected to teach and facilitate behaviour change in TVET students, and work towards risk reduction in the TVET colleges, because they spend more time with the students than anyone else in the community. They must be knowledgeable, committed and innovative in aspects of reproductive health. They should be able to establish resource centres, and contribute to the production of life skills and related A/IEC materials for TVET. Colleges in Zimbabwe and Zambia have included HIV/AIDS education and counselling in their teacher training programmes. The Education for Life approach, Ambassadors for Life tool kits and Life Skills teaching through participatory methods are some of the approaches that have been found useful in influencing behaviour change, and hence are worth considering in TVET HIV/AIDS programmes.

It is also worth including this subject in the curriculum. TVET teachers are largely non-professional but they regard themselves as skilled workers. Some may not see the need for including this aspect of education into their motor mechanic workshop management courses, as they do not see the link between the two. The student, on the other hand, is more concerned about the source of money and future employment opportunities after graduation. Some people argue that including HIV/AIDS education in the curriculum increases sexual activity among youths. There is no substantial evidence for this. An evaluation of specific inter-

ventions in literature revealed that of the 53 studies done, only three found that integrating HIV/AIDS programmes in the curriculum increased sexual activity amongst youths; 17 reflected that there is no link between the two; and 22 found that such integration actually helped youths to postpone the onset of sexual activity (UNAIDS1997:5).

An impact evaluation of HIV/AIDS programmes in Zimbabwean tertiary institutions showed that students are willing to learn life skills, and that Tech/Voc students, who were taught in smaller groups, had a higher knowledge of HIV/AIDS than those at teacher training colleges. It also revealed that because the subject is new to the curriculum, it is demanding both in terms of preparation and planning requirements. Lecturers in Zimbabwe work with health workers who create opportunities for them openly to discuss and reflect on their own values and behaviour.

Related studies have also shown that IEC helped to increase condom demand and supply, especially amongst professional sex workers and other high-risk groups. The implication here for the TVET system is that its programme managers have to establish links with stakeholders and create partnerships with other curriculum developers, health workers, and HIV/AIDS education co-ordinators in order to make health services accessible to the students and teachers themselves. They have to strengthen and encourage their participation in community HIV/AIDS activities so that students can get help in internalising positive social behaviours, and orphans can be reached.

HIV/AIDS issues have both negative and positive implications for donor support. Teachers who require training may not be able to afford it. The World Bank, for example, is ready to assist those countries that are hard hit by the epidemic, but those willing to be trained may not be admissible to training institutions in industrialized countries because of their HIV/AIDS status. Teachers who wish to take up the challenge and work with students on HIV/AIDS get more frustrated when they are not financially rewarded because of the status the subject is given in the institution. That frustration, coupled with what has already been described, implies that managers of TVET institutions have to address teachers' concerns and work towards creating a sustainable human resource development programme which also provides motivation and resource support. They have to focus on the cost of replacing and recruiting staff, a task that requires commitment if programmes are not to collapse. The TVET system has to include flexible timetables to enable teachers and students to be trained in HIV/AIDS teaching and counselling.

Both require counselling services, for it is only when the teacher has come to terms with his own situation and lifestyle that he is able to help his students.

Counselling courses are very expensive and, to run them, institutions have to rely on donor support. It is necessary that the person who is trained should have been counselled and must be happy to take up the challenge, otherwise he will drop out when issues that concern him as a human being are addressed in counselling sessions. TVET systems therefore require a group of trained lecturer peer counsellors as well as student peer counsellors for effective positive living approaches to be implemented in TVET institutions. The donor, however, may have other priorities, and the management sectors of TVET systems may have to raise funds for training and personal development. A core group of trainers of trainers may have to be produced first to provide a capacity resource for other TVET institutions so that more counsellors are developed at each TVET centre.

Peer education programmes need to be enhanced, as in the triple A approach, through which peer educators can improve the perceptions of students with regard to their current status and problems. This approach helps students to assess and analyze their problems, empowering them eventually to take action to solve them. It is hoped that through such interventions the students will seek alternative sources of income instead of resorting, for example, to prostitution. Such systems help lecturers to identify partners with whom they can work when they feel the need for external resource persons and resources. In this way they are able to reach the orphans in their communities, and strengthen the sense of responsibility and the capacity of communities to realize their own obligations and the rights of the orphans they create and live with.

27 VAN MAARSEVEEN, Cees and DEURWAARDER, Jan (Botswana): What is the Key to a Successful Key-Skills Programme

1. Abstract

The paper addresses the developments and the context from which key skills emanated. It raises a number of questions the authors feel should be discussed in a regional forum, to clarify the nature and role of key skills and how they should or should not be placed in the curriculum.

Questions raised are:

- What exactly are generic, transferable skills?
- How transferable are key skills?
- What role should generic, transferable skills play in education?
- Should we change the focus from key skills to key problems?

4. Summary

This paper has focused on the factors that contribute to the spread of HIV/AIDS and their implications to the quality of life in TVET systems. It has highlighted the need for integrating HIV/AIDS education with technical and vocational curricula so that the product of the TVET system is a total human being, one who is able to deal effectively with social pressures and economic hardships without resorting to risky behaviour that would make him an unproductive member of society. Through capacity development, TVET organisers and actors would be able to strengthen and improve existing capabilities so that both students and teachers in their institutions take an active role in reducing the risk and incidence of HIV/AIDS in their communities. They would then become active members in resource mobilization and support and in HIV/AIDS programme implementation, monitoring and sustenance.

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The purpose of raising these questions is to come to a clear understanding of 'key skills' and specifically their role in vocational (teacher training) education. The authors propose a regional consultative meeting/workshop on key skills issues as well as the establishment of a regional key skills network.

2. Introduction

Key skills are seen as an important educational component to make school leavers more 'employable' (NCE, 1993). The Botswana Technical Education Programme (BTEP) therefore included a key-skills component (communication skills, numeracy, information and communication technology, personal and interpersonal skills and entrepreneurship) into the programme to address this noted inadequacy in the educational system. Including key skills in the BTEP

is not only a response to government policy but also to demands from employers. In industry and commerce employers prefer workers with broad (multi-) skills who can carry out a range of functions in a production process and are adaptable to changing work circumstances under the influence of modern technology.

3. What are Key Skills?

Key skills are referred to in various ways: key competencies, generic skills, soft skills, core skills, basic skills, fundamental skills, transferable skills, capability, study skills, abilities, attributes, and so on. The question here is: do all indeed refer to the same concept?

A wide range of abilities and attitudes has been listed as key skills, including accountability, flexibility, goal setting, integrity, self-motivation, punctuality, work habits, responsibility, leadership, ability to work in teams, language skills, positive self-image, and a positive attitude towards work. Clearly some personal skills are more fundamental than others to support human productivity in all vocational areas.

Several authors have tried to place the various identified skills in 'key areas'. The number of transferable skills identified ranges from 20 to 108 (Holmes, 1998), with various categorisations proposed. McLaughlin (1992) placed skills seen as imperative for employment in the following categories:

- Communication (understanding, speaking, listening, reading, comprehending, using/producing written materials);
- Thinking (creative, innovative, critical and logical problem solving, effective use of information systems and tools, decision making);
- Personal and interpersonal (positive attitudes and behaviour, responsibility, adaptability, work with others).

4. Is the Key-Skills 'Picture' Complete?

What is considered to be a key skill will depend on the specific group of persons identifying the skills. Employers might 'see' different key skills from an educationalist or rank differently the importance of listed key skills. Key competencies relating to the following 'missing areas' have been identified:

- (Multi-) cultural understanding
- Psycho-motor skills
- Musical or visual/spatial skills (arts).

Skills evident in, for example, proficient reading, comprehension and appreciation of literature, ethical concern, generosity, altruism – are they covered?

5. Generic (Transferable) Skills or Domain-Specific Skills?

Critics of the generic skill concept argue that knowledge and skills are context-specific and cannot be isolated from the context in which they are embedded (Breier, 1998). These critics state that the so-called core key or transferable skills are very specific skills (not context-free at all) that have been identified by a particular group of employers. They concluded that conceptions of generic skills are about attributes required by employers for work and that transfer of skills between contexts is a skill in itself. The pursuit of general transferable core/key skills is termed as wasteful ghost-hunting. The transferring skill is a meta-skill that allows selection, adaptation, adjustment and use of the other skills in different situations.

Breier concludes:

there is nothing intrinsically generic or transferable about the skills commonly labelled as generic or transferable. Most have to be acquired and exercised in specific contexts, with reference to specific knowledge bases. The term 'generic skills' really refers to competencies that are valued by the employers." (Breier, 1998, p 90 – 91)

6. Further Clarification: What Are Key Skills?

What are key skills? How can you distinguish between a key and a non-key competency? Is the 'common' list of key competencies sufficiently comprehensive or are 'key areas' in human life left out? What do we mean by 'transfer'? How like/unlike do two situations have to be to speak of transfer or to speak of a new skill? From the point of view of the generic concept critics, are key skills transferable or domain specific? Do they exist at all or is this just a theoretical construct? (Holmes, 1998.)

These are some of the fundamental questions in the debate over the introduction of 'key skills' in new programmes in the region. It is worth listening to the pros and cons raised in countries like the UK and Australia that already have a respectable experience in 'key skills' in the curriculum, with strong supporters and detractors. Other countries, notably the Nordic countries, the Netherlands and Germany, are exploring different options such as the 'key problem' approach.

7. How Were 'Key Skill' Areas Identified?

The identification of 'key skills' has been based on analysis of employers' preferred skills. These initially-identified key skill areas were later revalidated by employers. How valid is such a validation? Holmes (1998) states that a faulty methodology for the identification of key skills has been used and that the concept 'key skill' itself is flawed.

This raises a number of fundamental questions. Have key skills or employability skills been identified? Are

all key skills employability skills? Are all employability skills key skills?

8. Changing the Focus from Key Skills to Key Problems

Key skills development fits naturally within a curricular approach that utilizes key problems as a learning strategy. Reflection upon key problems can give insight into practice and provide ideas about how students might tackle similar problems in the future. It provides a framework for continuing professional development.

The focus on key problems can help in establishing an appreciation of the complexity and relatedness of issues and it can be used to facilitate both practical and theoretical learning. The notion of key problems is transferable in an unthreatening way, as each vocational area would have to define these for itself.

9. How Should Key Skills Be Taught?

Assuming that 'key skills' – whatever they might be – can/have been identified, how should they be covered in a curriculum? Research findings on the effectiveness of different approaches to teaching key skills indicate that the latter are most effectively learned when:

- Fully integrated into the subjects of the programme followed by the learners. Key skills do not have an independent meaning, but acquire meaning within a specific context. Covering 'key skills' as stand-alone units/modules was found not to be effective, as 'transfer' did not occur. Sticht (1989) reported that "programs that offer basic skill training prior to and separated from vocational programs are not particularly effective in improving either basic skills or vocational knowledge". Accreditation of free standing 'key-skill' units would give credit to decontextualised learner's performance and the credibility of such accreditation is in question (Wilmot et al. 1997). Key skills cannot be taught or assessed in isolation from a context. There is no research evidence to suggest that development of a key skill in one context will result in the spontaneous transfer to another significantly different context.
- Performance outcomes for the key skills have been explicitly included in each unit specification and evidence to be produced indicated. For effective learning of key skills, they must be included in the performance criteria and evidence requirements of each unit/module in the vocational area.
- A participative, learner-centred teaching approach is used. A teacher-centred approach was found to be far less effective than an approach in which role-play, problem solving, group discussion, etc. was used.

- A setting is used which closely mirrors real life and workplace situations. Learners must be able to see the direct relevance of the skill to their own future in the world of work or adult life.
- Teachers in their own classroom/workshop practice and personal/social life demonstrate the attitudes, values and skills they expect learners to develop. Attitudes and values espoused without their being enacted in the teacher's own life have no transfer value. (Stasz, et al., 1993; Herr and Johnson, 1989; VEW, 1993).

10. Proposals

It is proposed that

- A regional consultative meeting/workshop on key-skills issues be organized
- A regional key-skills network be established.

11. Expected Outcomes

- Clarification of the 'key-skills' concept and its place, if any, in the new vocational curricula in the region
- A database with examples/ideas of key-skills activities in all vocational areas
- An in-service training pack on 'including key skills in the vocational areas', with examples in each vocational unit to show how key skills can be included
- Student learning packs/modules (for full-time and distance education in various vocational areas, including teacher training) with key-skills activities integrated and included in the performance criteria so that evidence has to be gathered.

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Workshop Programme

Time	Programme Activity	Facilitator/ Resource Person
Monday 4 December 2000		
08:00 - 17:00	Training of moderators	Mr. Thomas Dosch, Chief Moderator
	Arrival and registration of participants	
18:30 - 20:00	Informal get-together	
Tuesday 5 December 2000		
07:30 - 08:00	Registration	
08:00 - 08:05	Opening plenary	Chairperson: Mr P T Ramatsui
	Welcome and introduction by Chairperson	Mr P. T. Ramatsui, Permanent Secretary, Ministry of Education
08:05 - 08:15	Statement and other international co-operating partners by UNESCO Representative	Mr H. Krönner, UNESCO
08:15 - 08:40	Opening speech by the Honourable Minister of Education	Minister of Education, Hon K. G. Kgoroba
08:45 - 09:00	Purpose and objectives of the workshop	Mr H. Krönner, UNESCO Mrs I. M. Nganunu, Ministry of Education
09:00 - 09:30	Presentation of the main issues/workshop document	Mr J. R. Swartland, Consultant
09:30 - 10:00	Tea break	
10:00 - 12:00	ICT for effective training approaches and effective regional co-operation ICT practitioners from Germany, South Africa (including private sector)	Chairperson: Mrs I. M. Nganunu
12:00 - 13:15	Lunch	
13:15 - 13:45	Format for follow-up project proposals	Representative from a Donor Agency
13:45 - 14:15	Plenary: Working procedures for groups	Chief Moderator
14:15 - 15:15	Group work: Developing project proposals	Moderators
15:30 - 15:45	Tea break	
15:30 - 17:00	Group work	Moderators
18:30 - 20:30	Reception hosted by the Permanent Secretary, Ministry of Education	
Wednesday 6 December 2000		
08:00 - 08:30	Plenary: Review of day 1	Chief Moderator/ Consultant
08:30 - 10:00	Group work	Moderators
10:00 - 10:30	Tea break	
10:30 - 12:30	Group work	Moderators
12:30 - 13:45	Lunch (Parallel moderators' meeting)	
13:45 - 15:30	Group work	Moderators
15:30 - 15:45	Tea break	
15:45 - 17:00	Group work	Moderators
19:00 - 20:00	Evening presentation (optional)	
Thursday 7 December 2000		
08:00 - 08:30	Plenary: Review of day 2	Chief Moderator/ Consultant
08:30 - 10:00	Group work	Moderators
10:00 - 10:30	Tea break	
10:30 - 12:30	Plenary: Presentation of group reports (focusing on milestones)	Chief Moderator/ Consultant/ Group Representatives
12:30 - 13:45	Lunch (Parallel moderators' meeting)	
14:15 - 15:45	Visit to technical college / group work	Moderators
15:45 - 16:00	Tea break	
16:00 - 17:30	Group work	Moderators
19:00 - 20:00	Group work: Finalization of project proposals	Moderators

Time	Programme Activity	Facilitator/ Resource Person
Friday	8 December 2000	
08:00 - 10:00	Plenary: Presentation of group work results in a Market Place; collection of expressions of interest from participants to participate in and/or co-ordinate a follow-up project	Chief Moderator/ Consultant/ Group representatives
10:00 - 10:30	Tea break	
	Plenary: Presentation to donors	
10:30 - 12:30	Introduction of donor agencies and representatives	Presentation of workshop results to donors
12:30 - 13:45	Lunch	
13:45 - 15:30	Plenary: Presentation to donors continued, followed by donors' statement	
15:30 -15:45	Tea break	
15:45 - 16:30	Summary and the way forward	
	Final Plenary and Closing	Mrs H: S: Mogami, Deputy Permanent Secretary, Ministry of Education
17:00 – 18:30	A Celebration hosted by UNESCO	
Saturday	9 December 2000	
	Optional visit to Mokolodi Game Park	
10:00 – 15:00	Strategy meeting with moderators	
	Departure of participants, all day	

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