

## RESEARCH AND ACCESS TO EDUCATION FOR WORK: PRACTICES IN SOUTHERN AFRICA

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### ABSTRACT

This paper addresses the issue of access to education for work, commonly referred to as technical and vocational education. It then examines developments in research at higher education level. The problem of shortage of skilled manpower and scholarly research is widely acknowledged, especially in developing countries. Three questions guided the study, namely:

- i. What is the status of the education for work?
- ii. How do countries respond to the current situation?
- iii. What research initiatives are possible in the Southern African context?

Three methods were used to collect data, namely, analysis of documents, interviews of stakeholders, and participant observation. Botswana was selected as a case study, on the understanding that findings and interventions could be generalised to countries in Southern Africa. Some of the conclusions were that access tended to be limited to urban than to rural populations; collaboration with industry was minimal, and research initiatives were fragmented. This led to a number of recommendations, including the pursuit of distance education as an alternative to conventional education. This has the advantage of reaching the disadvantaged in rural areas. Also, providers were urged to network so that they share resources, including Open Education Resources, which do not have high cost implications. Finally, countries and institutions should live beyond rhetoric, by making collaborative efforts to further the research agenda.

### INTRODUCTION

Education for work is a broad-based theme, which touches on vital issues to which institutions in our developing countries should be responsive. Purposeful education is that which helps us to live here and now.

Globally, there is an acknowledged reduction of job opportunities, and at the same time there is limited skilled manpower resources in the technical and vocational sectors of economies. The fragmented efforts at lower levels, become even more pronounced as we scale the heights of higher education. In part, limitations in research are presumed to account for the *status quo*. This is particularly the case for developing countries in Southern Africa, a region to which Botswana belongs. In particular, formal employment keeps on experiencing a shrinkage, while the informal sector seems to be the reasonable way out for the unemployed and those retrenched from companies that are compelled to downsize or close shop due to recession and related factors.

Self employment in different fields such as small scale manufacturing, small scale farming, retail businesses, and the service industry continues to manifest itself in every country, but as research has revealed, there seems to be limited access to technical and vocational training (TVET) for citizens. Possession of relevant skills, it is assumed, has the potential of creating

a pool of skilled and semi skilled people who could engage in self employment, thus creating jobs for self and others. The same applies to vocational professions, which should be more consciously developed at higher education level. It is thus, the objective of this study to share research insights into the issue of access to education for work in developing countries, with particular focus on developments in Botswana. After examining the current situation, from document analysis, viewpoints from interviews will be reflected upon to demonstrate the innovative efforts between the government bodies and education providers, on the one hand, and education providers and industry, on the other, thereby promoting collaboration.

## **The Background**

In this section, background to the study is shared, and on that basis, the current situation will be described. We shall start by answering the question: What trends are noticeable in the development of vocational and technical education?

The general background shows that the publication in 1960 of the report of a commission on higher education in Nigeria, headed by Sir Eric Ashby (cf. Thompson, 1984) may be said to have marked the beginning of a new era in thinking about the role of education in development in Nigeria, and indeed in Africa as a whole. The report recognised the intimate relationship, which exists between education and economic development. It is necessary, therefore, to note that the responsibility of governments to involve themselves directly in economic activities and to plan economic development was not as widely and fully recognised in the past as it is today.

As a direct consequence of the emerging realisation, technical and vocational education was added to normal school education. Both were financed from recurrent revenue, and such revenue was acutely subject to fluctuation year-by-year. This effectively inhibited forward planning and access. However, historical evidence deriving from studies of more advanced countries during their periods of rapid economic growth, notably the USA, Russia, Denmark, Germany, and Japan, suggest that there had been a very significant relationship between their economic growth and the kinds of technical and vocational education provided to their citizens.

The new wave of thinking about investment in technical and vocational education was largely generated by UNESCO through a series of international conferences on educational planning held for various regions of the world at Karachi, Tokyo, Santiago, and for Africa at Addis Ababa in 1961. One notable pronouncement from the latter conference was:

There is no disputing that expenditure on some forms of education is an investment, which more than pays for itself even in the narrowest economic terms.

Governments were henceforth urged to plan educational provision continuously in relation to manpower needs at lower and higher levels of education.

The response by African governments has been to provide technical and vocational education for rural and urban development. Initially, this was done by introducing technical subjects in the secondary school curriculum. For example, in the then colonial Rhodesia, a new look type of secondary school was introduced. Two thirds of the subjects offered were supposed to be practical subjects. The technical and vocational subjects offered in a given school depended on where the school was located. A school in a rural area would offer agriculture, building,

and home economics. An urban school would offer woodwork, metalwork, and technical drawing, the thinking being that learners would acquire skills that enabled them to find jobs in the environment where their school was located.

Botswana originated the brigades, a pattern of technical and vocational training for out-of-school youth in 1965 (cf. Thompson), and Kenya took up the model for its village polytechnics. Brigades were initially conceived of as a means of providing a more appropriate form of training than that afforded by conventional secondary school courses. Brigades were associated with secondary schools e.g. Swaneng Brigades in Serowe and Madiba Brigades in Mahalapye. More recently the brigades system has evolved independently of the formal school system, whilst continuing to offer a balanced combination of generic skills and specific vocational skills training. Brigades seek to promote rural and urban development and operate in various fields including building, carpentry, agriculture, mechanics, textiles, to name but a few.

These examples of providing access through conventional institutions typify what has been obtaining in most countries of our region. However, success in achieving intended goals has been limited for a number of reasons such as:

- The status of technical subjects and that of teachers responsible for teaching them tended to remain low.
- The training attracted lower-ability learners and those who failed from academic streams. Thus, VET earned the stigma of being alternative education for failures.
- Even within the practical courses, the tendency by teachers was to increase emphasis upon theoretical aspects – the more elevated feature of academic institutions.
- There were limited opportunities for employment to absorb products from the institutions.
- In circumstances where such access was successfully provided, vacancies tended to be limited. A formal classroom can only take so many but not more.

### **What documents say about the current situation?**

Evidence from documents shows that there is increased awareness of the need to improve access to education for work. Conferences are held regularly, statistics are shared, separate budgets for technical and vocational education are allocated, but there continues to be a mismatch between technical and vocational skills, on the one hand and availability of skilled manpower, on the other, as illustrated in the following cases.

In the humanitarian news and analysis, IRIN (2008) observed that the legacy of apartheid haunts vocational training in South Africa. These points are particularly noteworthy about the situation:

- Access to structured education and training is far greater for urban than rural populations.
- Too little of the new education system reflects the needs and interests of the most disadvantaged members of the South African society.
- There have been long-standing complaints that the country has tended towards underdevelopment of intermediate-level skills.
- Managing the paradox of developing skills in a hostile labour market and environment, where unemployment is growing steadily is the greatest challenge for the emergent system.

The last observation seems to stress the pointlessness of increasing access to training in intermediate skills since there are no jobs for those who complete VET programmes.

*The Project Information Document* (PID) (cf. [IRC@col.org](http://IRC@col.org)) also reinforces the above. It notes that Mozambique provides an example of steady economic recovery and social reconstruction after a prolonged period of war. Notwithstanding that, data from the national household surveys of 1996 and 2002 show that:

- The employment segment is growing and demanding more skilled labour
- The shift in the skill profile has triggered a sharp increase in the need for technical and vocational skills especially in metal, gas, telecommunication, and agriculture
- The training system responsible for shaping the skills profile has been slow to respond to the changing labour market demands
- The TVET provided mainly by the National Directorate of technical education (DINET), the Ministry of Labour, NGOs and churches provides limited access
- The World bank (2004) identified relevance, quality, access, and equity as some of the key issues to be addressed

Both the South African and the Mozambican situations echo what can easily be observed in the other countries in our region. There is effort by individual countries to address the issue of access collaboratively. For example, at a workshop held in Gaborone in 2002 (cf. [www.unevoc.unesco.org](http://www.unevoc.unesco.org)) countries identified areas of common interest among member states of SADC in TVET reform. Projects were identified and elaborated jointly, but follow-up has not been systematic, while initiatives by individual countries need to be shared.

### Statistics on unemployment

The mere observation of what happens in our streets, home industry, and industrial areas shows a flurry of enthusiasm to self employ by providing a product or service of one form or another. Statistics show that unemployment and inflation can be high in developing countries as the table below shows.

**Table 1 Statistics on unemployment and inflation**

Country	Unemployment rate %	Inflation rate %
Mauritius	9.4	8.9
South Africa	25.5	5.0
Lesotho	45	5.0
Mozambique	21	12.8
Botswana	23.8	11.4
Zambia	50	8.8
Namibia	5.3	5.0
UK	2.9	2.3
USA	4.8	3.7
China	4.2	1.5
Japan	4.1	0.4

(Source: Nationmaster.com 2003-2008)

The last four countries are developed countries, which have been included simply to show the differences between developed and developing countries. The unemployment and inflation rates of the former, tend to be low.

The point to note is that where the rate of unemployment is high, inflation is also correspondingly high and vice versa. If unemployment in our countries continues to escalate, then it makes logical sense to increase access to technical and vocational training so that citizens can engage more profitably in the informal sector towards self-reliance. It is better to be skilled and unemployed, than to be unskilled and unemployed. Increasing access has become more urgent than before in a number of situations, which include:

- Post-conflict situations where citizens for years have been deprived of opportunities for skills development. Clear examples are those situations where war had been raging on and now there is relative peace.
- Situations where political dispensation favoured a particular racial group in terms of skills training. With the coming of independence the disadvantaged tend to have expectations for training.
- Situations in which a government turns against its own people to maintain political power resulting in brutalisation of the citizens by state machinery to silence them. In such a situation training institutions collapse and there is decay as reflected in a high rate of unemployment and inflation.
- Situations in which citizens are displaced or reallocated pieces of farm land without the necessary skills in agriculture.
- Situations in which the government recognises the need to empower its citizens, but finds that conventional training institutions cannot meet the demand to train its people.

Southern Africa's informal economy has prospered in part because formal economic structures cannot sustain the increasing numbers of job seekers, hence the flourishing of the informal sector. Freeman (2000:4), writing in the *African Security Review* has observed that, "high unemployment statistics in Africa are one clear indication that most people are excluded from the formal economy and are thus driven into the informal". Others choose the environment of the informal economy because it allows them more freedom to manoeuvre or avoid regulations that could impinge upon profits. Small businesses have thus proliferated on city streets, residential areas and villages. Such enterprises are conducted by unskilled traders, who may be averse to dependence.

The Botswana College of Distance and Open learning (BOCODOL) conducted a survey in Gaborone City, Khanye and Oodi in 2001. The study established small and micro traders who run food outlets, roadside kiosks, hair salons, poultry projects, guest houses, taxis, etc. but do not have any formal training. Without exception, those interviewed expressed the wish to access basic training in business management. Many of them had been working in the formal sector but had been retrenched as the economy continues to face challenges. Thus, vocational training in areas like entrepreneurship seems to be in demand. Some of those running welding, textile, or hair plaiting micro businesses revealed that they did not have any formal training, and expressed the need for short courses to update their skills. This was an expression of the need for training in technical skills. As the respondents said, training would help them produce quality products.

## The need for Innovation and Entrepreneurship

Promotion of education for work has far reaching implications on the part of the government of a given country, and such implications include innovativeness and entrepreneurship. The need to innovate becomes more compulsive at higher education level, and research should be seen as the catalyst towards realisation of educational goals. It is expected that policies and statutes should be put in place to stimulate a conscious development of technical and vocational training interventions. Such interventions, it should be noted, ought to go beyond rhetoric, for it is often easier to preach than to practise.

The requirement of '*innovativeness*' is a *sine qua non*. 'Innovation' refers to the government, through its relevant ministry, creating value by implementing new ideas on TVET. The starting point for innovation is the generation of creative ideas and taking those educational ideas to market or to usefulness. Innovativeness involves, inter alia, adopting best practices or taking informed action to ensure technical and vocational training are given the attention they deserve. This is against a background of need for change (<http://www.creativeadvantage.com/innovation-definition.aspx>)

On the other hand, 'entrepreneurship' is a business term, and according to Reynolds (2007), it is the act of being an entrepreneur or one who undertakes innovations, demonstrating finance and business acumen in an effort to transform such innovations into economic goods. This may result in new organizations or may be part of revitalizing mature organizations in response to a perceived opportunity. The most obvious form of entrepreneurship is that of starting new ventures in higher education. It is this business mindset that governments ought to adopt and apply in bringing about a new culture of educational access. Only that way can renaissance be brought into reality.

## Thoughts on innovation and entrepreneurship in Higher Education

A distinction is made between initial and continuing VET, already discussed, and tertiary level VET (which refers in principle to VET offered at the highest education levels). Examples of this are professional higher education study programmes in business administration, nursing, law and engineering. Elsewhere, systematic attention is given to developing lower qualifications towards higher ones. For example, the European Commission (2011) indicates in its "Communication Europe 2020: A strategy for smart, sustainable and inclusive growth", that initial VET aims to 'equip young learners with skills directly relevant to evolving labour markets'. Higher Education, on the other hand, escalates this to diploma and degree levels.

Vocationally oriented education and training at higher qualification levels in 13 selected countries in Europe (Czech Republic, Denmark, Finland, France, Germany, Greece, Ireland, the Netherlands, Norway, Poland, Portugal, Romania, and UK-England), serves as an example of what we, in Southern Africa, should emulate in many fields, including: agriculture, nursing, information and communication technology, finance, special educational needs and technology and innovation management.

Parity of esteem between VET and academic education at tertiary level is an important issue, although not widely discussed in some countries. In terms of learning opportunities there is more parity of esteem in countries where progression from more vocational to more academic study programmes is supported. The issues of articulation and progression from vocational to

purely academic institutions will remain problematic in our part of the world, at least for the foreseeable future.

It is, however, noteworthy that in our region, vocational programmes can readily be offered at tertiary level. What readily comes to mind is the area of nursing or guidance and counseling. Chitura and Modesto (2011:132) shares their experience of how vocational programmes can be escalated in a distance education situation.

The researchers explain that the need to train nurses at higher level came about as a result of the continued brain drain of nurse experts to other countries. The Bachelor of Science Degree in Nursing Sciences for the Zimbabwe Open University (ZOU) was launched in September 2000, after training of nurses by Distance Education was viewed as a feasible mode. Only those nurses who hold a certificate in Nursing at Diploma level are recruited for the degree programme. These nurses are trained to execute their duties expertly and are required to enhance their practical skills. This is against a background where stakeholders continue to question the ability of the ZOU to fulfil the practical skills component by Distance Education. The situation is compounded by the fact that research illustrating the extent to which students can be taught practical skills through the distance education mode is somewhat scarce (cf. Watson, 2002). However, Chitura and Modesto (2011:133-134), show a *modus operandi* that can be applied to other higher education programmes.

- Students attached for internship are supervised and then compile reports that they submit to the university.
- Students are attached to laboratories where they conduct practicals.
- Members from various fields, who in most cases, and are part-time employees of ZOU, supervise and guide students during the internship period.
- Lecturers and students engage in group demonstrations and return demonstrations.
- Students are on attachment to their areas of specialization with specific objectives to be achieved. They are followed up and evaluated by mentors. Both mentor and student write and submit reports to the university.
- In some instances, students go on field observation visits for their practical experiences.

Attention is now turned to the manner in which Botswana strives to cope with issues of access to education for work.

### **The Botswana Experience**

The study by Tau and Modesto (2011), conducted on behalf of the International Labour Organisation (ILO), aimed at explaining developments in the Botswana education for work efforts. To investigate such developments (in the field of TVET) two research methods were used, namely, analysis of documents and interviews with key stakeholders:

- officers from Botswana Training Authority (BOTA);
- providers of training, e.g. public and private colleges;
- government officials (Ministry of Education and Skills Development);
- members of task teams created by BOTA;
- representatives of donor organizations;
- employer organizations; and
- the Chief Executive Officer of the Botswana Training Authority.

## The Revised National Policy on Education (RNPE) (1994)

The RNPE (1994) noted several discrepancies regarding the Botswana vocational education situation:

- Standardised qualifications, with appropriate equivalencies were not in place.
- In the majority of cases, practising trainers for vocational courses lacked training.
- Vocational training was fragmented, with institution-based rather than nation-based courses whose quality varied from one institution to the other.
- The curricula for different vocational courses did not meet demands of the economy since some were developed outside the country for altogether different purposes.

The Vocational Training Act (1998) led to the creation of the Botswana National Vocational Qualifications Framework, and the establishment of BOTA whose mandate was to develop the framework and coordinate training skills to enable Botswana to be competitive in the labour market. The sectoral framework has three levels: foundation certificate, intermediate certificate, and national certificate. The primary aim of the BNVQF was that it should harmonize the different approaches hitherto taken by the Botswana Technical Education Programme (BTEP), the Brigades and public and private providers. The design of the framework, which was similar to the New Zealand Qualification Framework, was characterised by:

- the use of unit standards and achievement standards;
- recognition of credit for a wide range of knowledge;
- the idea of fields and sub-fields;
- the idea of task force teams;
- quality assurance systems and procedures; and
- assessment procedures.

(NZQA, 2009)

## Policy Framework

The Revised National Policy on Education has over successive years guided the Ministry of Education, renamed the Ministry of Education and Skills Development. The Policy, with specific reference to vocational education and training (VET), emphasized the need to equip learners with skills for the job market through:

- collaboration with industry;
- promotion of equity and access to quality vocational education; and
- lifelong learning for self-employment.

This national imperative is in line with the International Labour Office (ILO), which considers education, vocational training and lifelong learning as pillars of employability and sustainable enterprise development (ILO, 2008:1).

The new qualifications framework was thus meant to bring these high sounding ideals to reality. Other policies were formulated (Fleming, 2003), and bodies were created to support the BNVQF. These include:

1. National Youth Policy of 1996, aiming to assist young people to access adequate and appropriate programmes in order to attain the knowledge, skills and experiences required to effectively participate in national development. The policy led to the creation of the Botswana National Youth Council, with responsibility for funding



- young people to start small-scale businesses and for providing information on opportunities in education and the job market.
2. National Policy on Vocational Education and Training of 1997, aiming to establish an integrated, accessible and equitable VET system and lifelong learning for the formal and informal sectors.
  3. Policy on Small Medium and Micro Enterprises (SMME) of 1999, to foster citizen entrepreneurship, encourage the development of a competitive and sustainable SMME community and create sustainable employment opportunities. The policy has led to the creation of the Citizen Entrepreneurship Development Agency (CEDA).
  4. Vision 2016 –Towards Prosperity for All, which envisages the transformation of Botswana in the coming years into a prosperous nation through the pursuit of seven strategic pillars, among them a “prosperous, productive and innovative nation”.
  5. Regulatory bodies such as the Botswana Training Authority, charged with the responsibility of regulating TVET.

Three phases in carrying out regulatory functions by BOTA are distinguishable (BOTA, 2007):

- The first phase involved the establishment of the Botswana Training Authority (BOTA) as a parastatal under the Ministry of Labour and Home Affairs in 2000.
- The second phase (March 2000 to July 2004) concentrated on capacity building and staff development in order to prepare BOTA for its role to reform, operationalize and monitor the VET system in Botswana.
- The third (current phase) started in August 2004 and is concerned with implementing the qualifications framework. Implementation has therefore been underway for the past eight years. It is when the three phases are taken together that the issue of sustainability arises, especially with regard to implementation.

## **Sustainability**

The sustainability of a qualifications framework refers to the extent to which it is viable and can be kept going or maintained. To evaluate sustainability, oral interviews and operational documents were used. Evaluation, the primary objective of discussing the Botswana experience, will shed light on the seemingly negative and positive indicators.

### ***Negative indicators***

A few selected negatives are explained briefly below.

- i. Borrowing heavily from the New Zealand Qualifications Authority (NZQA), the regulatory authority (BOTA) launched the initiative calling stakeholders together to explain and teach them about unit standards. Some participants expressed concern about the lack of time to reflect on the structure and design of the qualifications framework. Thus, technical problems were noted early in the life of the QF.
- ii. Within the past eight years of implementation, slow uptake has been noted by interviewees. The general observations were that the time allowed to learn about the framework before implementation was limited; interpretation of unit standards has been somewhat difficult, especially regarding application in circumstances where practitioners were used to something different. Private colleges, especially, find it difficult to change ways of doing things because there is the cost factor involved, at least at the initial stages.

- iii. The prescriptive language of *unit standards, elements, performance criteria*, etc. has been resisted as it is seen to be interfering with practices that have been working well.
- iv. Given the choice, offering courses accredited outside Botswana does not have any hassles as a way of earning a living for private providers. Developing new courses following unit standards is perceived to be costly.
- v. BOTA's requirement that every trainer has to undergo training of trainers course has been met with mixed reaction. Some providers who were interviewed considered it arrogant of BOTA to demand such training from a professional who holds a higher academic qualification and a professional qualification over and above years of training experience. In cases like this, it was considered to be a fund raising exercise. Letamo and Thothe (2003) have also articulated these and other inconsistencies.
- vi. Industry does not find generic skills crucial to economic development in the short term, though BOTA is insistent on them. At the same time, as one interviewee at BOCCIM responded, BOCCIM finds it difficult to sell the idea of unit standards to industry because few employers find it easy to translate them into practice.
- vii. In the absence of a national qualifications framework, the qualifications offered under BNVQF do not have progression routes other than within the three limited levels prescribed. Some interviewees stated that qualifications offered through the sectoral QF spell out a dead end. One cannot articulate to higher qualifications offered by higher institutions.
- viii. Investigation has shown that financial constraints at BOTA have made staff development problematic at a time when expansion is needed most. Limited resources are, therefore, perceived as a threat to sustainability (Abbey and Makhulela, 2008).

To conclude this section, research established that during the first five years, Unit Standards have not been generated for the many sub-fields that have been prescribed. Moreover, the few unit standards that are registered on the BNVQF are not widely used. As discussed, out of the 643 programmes offered across the 124 institutions under the BNVQF, only 10 programmes (as at the beginning of 2010) comply with the unit standards specifications. Many qualifications, therefore, remain outside the framework, despite five years of implementation. The few unit standards that are registered on the qualifications framework have been developed in generic skills, computer application, tourism, hospitality, and HIV/AIDS, and these do not lead to immediate employment by those in possession of such qualifications.

### ***Positive Indicators***

Despite the negatives discussed above, interviewees observed several positives.

- i. The introduction of instruments for quality auditing processes hold the potential of enhancing effective self-monitoring by those institutions offering programmes approved by the Authority. This is a reform indicator in a situation where existing providers had not been exposed to ideas about systematic self-monitoring.
- ii. Employer organizations concurred that the qualifications awarded to employees, after the companies had participated in the development of curricula and formulation of unit standards, were more relevant to the workplace in terms of improved performance. The collaborative effort between providers of vocational

- courses and industry, encouraged by the provisions of the QF, although isolated, demonstrates what the QF can achieve as an instrument of change.
- iii. To reinforce further the success of the BNVQF, based on the efforts of BOTA, the qualifications framework has raised stakeholder awareness of gaps in the skills of Botswana relative to certain areas of business. This means the BNVQF, as operationalised by BOTA, has been instrumental in transforming attitudes so that citizens become more enterprising than was the case before the QF came into existence.
  - iv. Another success indicator of the new QF is that insistence on having properly qualified trainers to handle courses in colleges (private and public alike) ensures, in principle, consistency of standards across the different providers. This call by BOTA is well placed if standards are to be raised.
  - v. Before enactment of the BNVQF, there was no systematic timeline for a given qualification. In one institution, a diploma in a particular field would last three months, while in another, six months, and in yet another, it would last 24 months. This discrepancy is addressed by unit standards to ensure the country talks of one and the same qualification using credit points.
  - vi. Interviewees observed that the BNVQF meets its VET goals of increasing access to training, increasing job opportunities, and reduction of poverty.
  - vii. Through the efforts of BOTA, the BNVQF has enhanced the awareness that qualifications must be demand driven rather than being institution driven.

## On Research

In addition to experimental research, or evaluation research, Action Research has become one of the best approaches to address problems in education. Also referred to as practitioner research, it examines how an issue or a problem is handled within a given institution or educational context. This practice has been referred to by Kemmis and McTaggart (1982) as the in-depth investigation of a single instance of some social phenomenon or some institutional project. The practitioner also establishes how, after locating it in a narrower context, the same problem and researched solutions can be located in a wider social discourse, and address it such that opportunities for participative engagement and further dialogue are enhanced Groundwater-Smith and Mockler (2005:2). The conduct of case study research fulfills a number of criteria, which according to Flyvbjerg (2006) include:

- i. *Democratic validity*. This refers to the extent to which all key stakeholders are consulted and engaged in the enquiry.
- ii. *Catalytic validity*, which refers to the transformative potential of the research findings.
- iii. *Dialogic validity*. This refers to whether there is trustworthiness, namely, the extent to which the study stimulates ongoing discourse among participants and interested stakeholders.

With this tide in our favour, the time to conduct research is now. The time to innovate in Higher Education is now. The time to meet industry expectations is now. The renaissance is now.

In Botswana, the HRDC decries the limited research effort at individual, institutional, and national levels. You can, in practice conduct research in practically any area. Examples of research initiatives include:

Initiative	Description
Individual Journal articles	Subscribing to the many journals
Short courses	Practitioner Research and evaluation skills training. 12-month programme sponsored by COL through the SADC-CDE office domiciled at BOCODOL
Collaborative book chapters by authors from different countries	<ol style="list-style-type: none"> <li>1. Open and distance learning practices in Southern Africa (14 chapters by contributors from Southern Africa)</li> <li>2. Collaboration and access through virtual education (12 chapters by contributors from small states of the commonwealth) (BOCODOL initiative)</li> <li>3. Preparing to write your dissertation at a distance (15 chapters by doctors and professors from Southern African Universities) (BOCODOL initiative)</li> <li>4. Building institutional capacity through action research (BOCODOL initiative)</li> </ol>

Research begins with an individual committed researcher

A number of individual committed researchers lead to institutional profiling

Profiled institutions researching together lead to a nation of researchers

When nations collaborate in research, the result is an oriented sub-region.

### Recapitulation

Upon reflection of the foregoing discussion, the following key points about access to education for work have come to surface:

- a. Access is far greater in urban than in rural areas.
- b. The disadvantaged are the ones with more limited access.
- c. There is prevalence of curricula that is more institution- than demand-driven.
- d. There is need for lifelong learning for self-employment.
- e. There is increased awareness by developing countries to plan VET more systematically.
- f. Research seems to be lagging behind.

Based on these observations, practical recommendations for adoption and implementation by member states of the sub region, and indeed by other developing countries worldwide, are made.

### RECOMMENDATIONS

Given that there is increased awareness to plan VET more systematically (point (e)), it is recommended that countries should consider open and distance learning (ODL) as a viable alternative regarding increasing access for rural learners, who tend to be among some of the most disadvantaged. The question is: To what extent can ODL facilitate access to VET?

What have been described as generic courses under the BNVQF can be taught through ODL. Such courses include: communication, numeracy, basic computing, problem solving, entrepreneurship, change management, project management, to name a few. These are offered to develop new or enhance already acquired technical and vocational skills. The

courses would be offered either as in-service or pre-service interventions. Courses in this category do not require any special equipment, and could be easily taught at a distance through print media, occasional face-to-face interaction, as well as on-line.

The second category is made up of more technical courses such as farming for smallholders, cell-phone repair, guest-house management, travel and tourism, beauty therapy, horticulture, etc. There are two components to these courses, namely the theoretical and the practical. The study material for the theoretical aspect could easily be prepared so that learners can read on their own and respond to assignments. The institution can also organise face-to-face meetings with learners, supported with tutor marked assignments.

The second component is hands-on or practical experience. The learners who will be doing a particular course could easily arrange for attachment. For example, somebody doing the course on farming for smallholders can network with farming enterprises in the community to apply theoretical ideas. Taking into account cellphone repair, INTEC College (South Africa) notes that there are over 30 million cell phones in South Africa, and the growth shows no sign of tapering off. In other words, the cellphone industry is one of the fastest-growing industries even in developing countries. For that reason the repair industry is a huge market. There are, therefore, increasing job opportunities for people who have a good understanding of how to repair phones, television sets, and computers.

In his address at the Pacific Islands Forum of Education Ministers (2005), the then President and the Chief Executive officer of COL, Sir John Daniel, reaffirmed the proposition of COL's founders, namely, that:

any learner anywhere in the Commonwealth shall be able to study any distance teaching programme available from any bona fide college or university in the Commonwealth.

This statement is applicable at lower and tertiary levels. In addition to study material on the theoretical aspect, such courses could have a practical instructional video that will walk the learner through the practical aspects of the courses. In this case the video serves in lieu of the tutor.

The issue of budget is always a concern in many situations, especially where demand for training is high. It is recommended that governments collaborate with industry and non-governmental organisations to augment the limited budget. That way, VET would be enhanced.

Another recommendation has to do with networking. Institutions providing technical and vocational courses should network with sister institutions in the region in order to adapt relevant programmes to their situations. It is better to take this route than to re-invent courses already available elsewhere.

There are new developments in terms of courses available for use at both initial and tertiary levels, referred to as *open education resources* (OERs). These are educational resources (including curriculum maps, course materials, textbooks, streaming videos, multimedia applications, and any other materials that have been designed for use in teaching and learning). They are openly available (available free of cost) for use by educators and students without an accompanying need to pay royalties or license fees.

## CONCLUSION

It is true that ours are developing economies, and while it is true that there are shortages of skilled manpower due to lack of access to training, it is equally difficult to imagine how our economies and their peoples survive. Most certainly the informal sector has helped many people to eke out a living through informal trade, while the formal sector has struggled with limited skilled manpower. One of the solutions lies in deliberate interventions to train citizens in intermediate skills that will help them play a full participatory role in the economies, thereby leading to more meaningful rewards arising from employment, whether formal or informal. While access policy reform regimes differ from country to country, the need to strategise for technical and vocational training has remained a universal concern. Providing increased access to TVET and increasing research initiatives, has the potential of contributing significantly to the economic superstructure of a given country.

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