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# The Development of Technical and Vocational Education in Zimbabwe

Nobukhosi Mitchel Dube, Sisheng Xie*
Nanjing University of Aeronautics and Astronautics

## Abstract

Most of the young people in Zimbabwe lack the skills and knowledge that they need to change their lives because of the economic situation in Zimbabwe. Through vocational training centres students are trained in different fields giving them skills to use whether they choose to start their own business or to seek employment. Developed in 1990, the rationalisation of vocational and technical education policy sets the framework for TVET in Zimbabwe. The manpower planning and development Act regulates the management, operation and maintenance of TVET institutions, universities, teachers colleges and vocational training schemes. The act promotes human resource development, including apprenticeships and certification for skilled workers; it also establishes a training levy. This paper seeks to identify the current issues in vocational training in Zimbabwe as well as the challenges that the country is facing in attempting to implement vocational training in its educational system. Finally the paper will also suggest possible solutions or ideas to the new government of Zimbabwe on how to address the problems of vocational education and training**.**

**Keywords:** Skilled Worker; Technical and Vocation Education; Zimbabwe.

## 1. Introduction

Education, particularly vocational education (career and technical) has been seen as a tool for servicing the needs of society. According to Mandebvu (1989), education philosophers believe that the social, political and economic world outside the school can be changed if not completely, then partly by introducing vocational education in the content of education. Many countries have introduced vocational education as part of the formal school system but most debated issue, particularly at the secondary school level, has been the purpose of vocational education (Hawke, 2000; Strong, 1990).

According to the World Bank development indicators, the unemployment of youth in Zimbabwe which is between the ages of 15-24 years has shown a gradual increase over the last 7 years from 2011. The labour force in Zimbabwe is between the above mentioned ages which are basically the secondary school leaving age and the tertiary school leaving age. in 2011, the unemployed youth accounted for 8,46% followed by an increase in 2017 to 11.39%. It would be important therefore for Zimbabwe to introduce vocational education and hands on skill to eliminate the number of those that are part of the labour force and are unemployed.

**Table 1. Unemployment Rate of Youth in Zimbabwe**

| Year | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
|---|---|---|---|---|---|---|---|
| Youth unemployment labour force (15-24 Years) | 8.46% | 11.52% | 11.46% | 11.42% | 11.40% | 11.41% | 11.39% |
| Source: World Bank development indicators; Zimbabwe 2017 | | | | | | | |

Zimbabwe follows a 7-4-2-3 system of education, (7 years of primary, 4 years of secondary, 2 years of advanced high school and 3 years of college or university). Technical education is available from the last 2 grades of primary school through university. In primary and secondary schools the technical subjects on offer include; building studies, fashion and fabrics, food and nutrition, metalwork, technical graphics and woodwork.

Secondary education is subdivided into three 2-year phases: Zimbabwe Junior certificate (ZJC), and the Zimbabwe general certificate (O level) and the Zimbabwe Advanced level (A level). The first two levels of secondary education are commonly referred to as high school. Every high school is required by the ministry of education sports and culture to offer at least 1 technical subject and the schools

decide which of the practical subjects they will offer. The Zimbabwe Ministry of education sports and culture is responsible for the primary and secondary levels of education while the ministry of higher education and technology oversees tertiary education, which includes universities, technical and poly technic colleges, vocational skills training centres and teacher training colleges.

Developed in 1990, the rationalisation of vocational and technical education policy sets the framework for TVET in Zimbabwe. In 2005, the ministry of Higher and Tertiary Education published a review of the TVET system which outlines major challenges and makes recommendations for its improvement. The report on the technical and vocational education and training policy review framework (2005) also defines a number of parameters for a TVET policy review.

Faced with major economic and social challenges, the inclusive government of Zimbabwe developed a short term emergency recovery programme (STERP) that advocates greater cooperation between public TVET programmes and income generating projects. It also outlines Government plans to decentralise TVET to increase its relevance for the community.

This research seeks to study the development of vocational education and training in Zimbabwe, the challenges of vocational education and training as well as the government efforts and projects. Finally the research will make suggestions to the government on some measures that can be taken to expand technical and vocational education in Zimbabwe as it plays a key role towards economic growth and development.

## 2. Current Analysis of Technical Vocational Education in Zimbabwe

TVE is education and training which provides knowledge and skills for employment. TVET uses formal, non-formal and informal leaning (UNESCO-UNEVOC August 2017). TVET is recognised to be a crucial vehicle for social equity, inclusion and sustainable development (Chakroun, b; Holmes, K. P. (2015).

### 2.1 TVET Legislation in Zimbabwe

The education Act No 5/1987 is the main legal document guiding primary and secondary education in Zimbabwe, Amended in 1991 and 2004, it sets out the fundamental principles of education: abolition of racial discrimination, free and compulsory primary education, state support for literacy programmes and non- formal and adult education, decentralised management, and expansion of teacher education.(World TVET Database Zimbabwe Aug 2012).

The Manpower Planning and Development Act 28:02 of 1984 (amended in 1996) regulates the management, operation and maintenance of TVET institutions, universities, teachers‟ colleges and vocational training schemes. The Act promotes human resource development including apprenticeships and certification for skilled workers, establishes a training levy and outlines the functions of the National Manpower Advisory Board.

## 2.2 TVET Formal and Non-Formal Systems

### 2.2.1 Formal Systems

Universities, technical, agricultural and teacher training colleges are the main institutions of higher learning in Zimbabwe. Tertiary education refers to those studies, which have a specialist component and include certificate, diploma or degree courses. Tertiary education has greatly expanded since 1980 due to the introduction of new universities, technical colleges and distance education programmes.

Most formal courses in the technical institutions have durations ranging from one year to two years, while those for teacher training and other professions (health and agriculture) range from 2-4 years. Primary education starts at the age of six and lasts for seven years. Secondary education is divided into two levels: a four- year ordinary and a two-year advanced level. In addition to the conventional subjects, students are required to take a minimum two technical and vocational courses in the first two years of secondary education. Depending on their performance, they will consequently follow an.

Academic or technical and vocational education path. Tertiary education is offered in vocational skills training centres, teachers colleges, polytechnics technical colleges and universities. TVET institutions offer skills training leading to a certificate, diploma, higher diploma and degrees. College courses last for two to four years while universities offer both full and part-time diploma and degree courses.(World TVET database ,Zimbabwe 2012).

**Table 2. Enrolment in Tertiary Education.**

| College | 2010 | | | 2011 | | | 2012 | | |
|---|---|---|---|---|---|---|---|---|---|
| | Male | Female | Total | Male | Female | Total | Male | Female | Total |
| Bulawayo | 2233 | 1515 | 3748 | 2570 | 2035 | 5058 | 2751 | 1978 | 4729 |
| Gweru | 569 | 469 | 1038 | 770 | 703 | 1473 | 830 | 761 | 1631 |
| Joshua Nkomo | - | - | - | 316 | 316 | 632 | 209 | 267 | 474 |
| Harare Polytechnic | 2148 | 1277 | 3425 | 2806 | 1527 | 4333 | 3421 | 1401 | 3719 |
| Kushinga Phikela | 232 | 261 | 493 | 230 | 271 | 491 | 207 | 267 | 474 |
| kwekwe | 642 | 717 | 1359 | 1173 | 852 | 2025 | 1237 | 942 | 2179 |
| Masvingo | 626 | 419 | 1045 | 1043 | 902 | 1945 | 1134 | 936 | 2070 |
| Mutare | 763 | 349 | 1112 | 1058 | 648 | 1706 | 1336 | 818 | 2154 |
| Total | 4411 | 3023 | 7434 | 9966 | 7254 | 17663 | 11125 | 7370 | 17432 |

**Source:** Zimbabwe national statistics agency education report 2013

Vocational training colleges offer short term training to semi-skilled people in practical trades such as mechanics, agriculture and entrepreneurship. Enrolment in vocational training colleges reached a peak of 17 663 in 2011. Across the years, the enrolment for males was much higher than that of females.

### 2.2.2 Non-Formal TVET systems

A flexible programme capable of rapid change according to individuals" needs which takes place in an informal environment. Not rigidly structured, with emphasis on activities directly associated with work and appealing to target groups who have inadequate financial resources or little opportunity to undergo formal training.

The majority of TVET is provided by both public and private institutions. Their quality and standards vary but their prevalence attest to the unmet demand for education and training in Zimbabwe. Skill training is also provided through enterprise-based or on the job training. Companies train their employees in company-own training schools or provide in-house training by hiring external trainers who tailor their courses according to company needs. Companies acquiring new equipment often request their suppliers to provide necessary training for their employees to ensure their adequate skills in operating new machines.

Informal apprenticeships are the traditional form of skill training in Zimbabwe. Informal-unlike formal-apprenticeships are not covered by the manpower planning and development act and are therefore unregulated.

### 2.2.3 Industry Based training

There are two types of Industry Based training as follow: 1) **Apprenticeship training Requirements**: 11 years of basic education. Skill training is provided through enterprise based or on the job training. Companies train their employees in company – own training schools or provide in- house training by hiring external trainers who tailor their courses according to company needs. Companies acquiring new equipment often request their suppliers to provide necessary training of their employees to ensure their adequate skills in operating new machines. 2) **Skills upgrade training**: Formal short courses ranging from 6-12 weeks introduced at the industry training centres which were taken over by the state and designated as vocational training centres. The courses were designed according to skilled worker class levels ranging from skilled worker class 4(lowest) to 1( the highest).To mark the completion of each

Level, the trainee has to take an appropriate trade test for which a commensurate skilled worker qualification certificate is issued by the state.

### 2.2.4 Youth Training Centres

To take care of the training requirements of the generality of school- leavers not for the formal courses, a number of youth training centres (YTC) were established. These centres absorb trainees with varied academic levels to follow common courses for average durations of 2 years. The courses are designed by the individual centres to facilitate the absorption of their graduates into both formal and informal employment. In some cases, some of the courses have been modified to qualify for national examinations and trade testing.

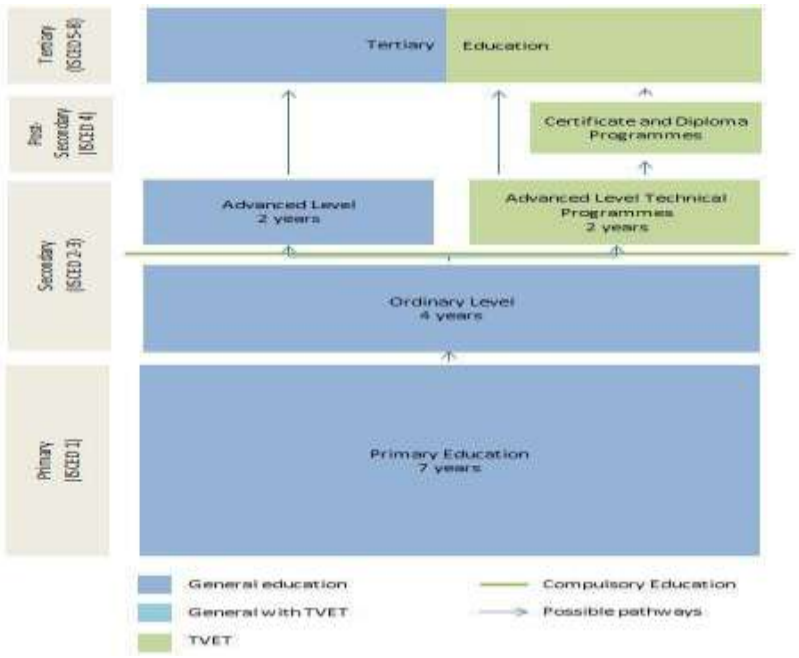


**Figure 1: Education System in Zimbabwe**

Source: (UNESCO TVET Database country profiles Zimbabwe" (2010) World data book)

## 2.3 Major Courses of TVET in Zimbabwe

The 1999 Commission of inquiry into education and Training (CIET) recommended a secondary school curriculum with a strong vocational component to create employment. Hence, vocationalisation was seen as the ideal way to go in the education system. (Senator David Coltart Oct 2012). The rationale for providing the Technical and Vocational education in the Zimbabwean Schools apart from providing general academic education are to; provide a curriculum with content responsive to business requirements and learner needs, produce students who can competently come up with technological designs to solve problems, provide a wide range of Tec-Voc subjects from which students could choose, link Tec-Voc Education courses to relevant Science and Engineering courses in tertiary institutions and link learners with economic activities around their school environment.

The 1999 CIET recommendation-vocationalise education to familiarise pupils with vocational and technical skills at basic education levels and lay the foundation for specialisation at post basic level. At ECD, the initial orientation towards TVE includes practices in Art and Craft, Music, Computers and

Physical Education. The primary school curriculum consists of 13 subjects 50% of the subjects are practical(pre-vocational) subjects including Music, Art, Craft, Physical education, Home economics and computer studies. At junior level, the curriculum is broad based and there is no specialisation and students are expected to study at least 2 Tech-Voc subjects. At Middle Secondary which is form 3 and 4 students are expected to be offered technical and vocational as well Business or commercial subjects. The following technical subjects are offered and examined at the end of O level; agriculture, building studies, fashion and fabrics, food and nutrition ,metal work ,technical graphics ,woodwork and computer studies.

The Vocational Subjects which are offered as single subject courses are examined by the higher Education Examinations Council (HEXCO) leading to the national Foundation Certificate (NFC) qualification. The subjects on offer fall under the following categories: Applied Arts, Automotive Engineering, Building construction and allied trades, Hotel catering and Secretarial studies.

In addition to Zimbabwe school examination practical subjects offered at both primary and secondary levels, the rationalisation of technical and vocational education and training in 1990 by the ministry of higher and tertiary education, has seen some secondary schools that have the capacity, offering the Technical and Vocational courses at National Foundation Courses (NFC) level designed by the higher Education Examination Council (HEXCO).

The rationalisation of the Technical and Vocational Education and Training System in Zimbabwe has resulted in the establishment of the following qualifications.

**Table 3 .Technical and Vocational courses at National Foundation Courses (NFC) level**

| **TVET Level** | **Entry Qualifications** | **Target Group** | **Expected level of competence** | **Duration** |
|---|---|---|---|---|
| PVC | Basic Numeracy and Literacy | Primary School Pupils and Adult Literacy Groups | Basic Operative Skills | |
| PVC | Grade Seven | Junior Secondary Pupils | Basic Operative Skills | |
| NFC | Junior Secondary or at least 2 years secondary | Middle secondary school students | Basic Productive Skills | 1-2 years |
| NC | At least O level or NFC subjects plus a complementary number of at least 5 O level subjects | School leavers | Craftsmen in the engineering trades | 1-4 years |
| ND | A level or a relevant NC | Skilled personnel who wishes to advance | Technician | 2.5-3 Years |
| HND | ND | Advancing Technicians | Technologists | 1.5 years |
| B.TEC H | HND | HND holders to become degreed | Production Engineers | 2 years + |
| M. Tech | B. Tech | Engineers to become Production Managers | | |
| D. Tech | M. Tech | Production Engineers going into Research and development | Research Development Engineers | 2 years + |

Source: Innovation Africa Summit 2012 Education Report on Zimbabwe by Senate David Coltart

### 2.4 Governance of TVET in Zimbabwe

Education in Zimbabwe is administered by two ministries: the Ministry of education, sports and culture and the ministry of tertiary and higher education. The ministry of Education sports and culture is responsible for early primary and secondary education. It runs a number of secondary schools that offer technical and vocational courses.

The Ministry of Higher and Tertiary Education was established in 1998 and is in charge of TVET; the Division of Manpower Planning and institutional Development is responsible for human resource

Planning and institutional development particularly of polytechnics; the Division of standards Development and Quality Assurance develops skill training, standardises certificates and examinations. The MHTE provides TVET through 8 Polytechnics, two industrial training centres (ITCs) and 3 state-assisted vocational training centres. Additionally, the MHTE runs apprenticeship programmes. Skill training is offered by the Ministry of Youth Development, Indigenisation and Empowerment; and the ministry of Women‟s affairs gender and community development. The ministry of Education sports arts and culture runs secondary schools that offer technical and vocational subjects.(UNEVOC/2012/TVETDB/ZWE/1).

### 2.5 Major Projects in TVET

The government of Zimbabwe has put in place the following projects to support Vocational education in the country: **Command Agriculture Project**-Under this project, the youths in one of the provinces in Zimbabwe will receive practical agriculture training. The government launched this programme to improve their productivity through sustainable training methods. The success of the command agriculture programme hinges on equipped farmers, hence the initiative to offer practical skills to all farmers including the youth.(The herald newspaper October 2017 „‟government to train youths in command agriculture”). **Development of Qualifications Authority**-The Ministry of Higher and Tertiary Education (MHTE) is developing a draft plan for the establishment of the Zimbabwe Examinations and Qualifications Authority (ZIMEQA). ZIMEQA will serve as the main body facilitating mobility within the education system and promoting training career pathways. To this aim, a draft National Skills Policy was developed as a framework for harmonising standards in higher and tertiary education (World TVET Database Zimbabwe 2012).

The Major Projects in Zimbabwe are funded through the following sources:

#### 2.5.1 Government Funding

Depending on the year‟s revenue plan, public TVET institutions receive budget allocations which cover employment and operational costs, as well as funding for capital development projects. State-assisted TVET provides benefit from funding for employment costs, while private TVET institutions do not receive any public funding.

#### 2.5.2 Student Fees

Students pay their fees (tuition, examination fees etc.) directly to the institution. Income generated through student fees is administered under the Tertiary Education Development Fund which is overseen by the Treasury. Students from disadvantaged backgrounds benefit from a tuition fee waiver that is awarded under the Cadetship Scheme which is part of the National Education Training Fund.

#### 2.5.3 Zimbabwe Manpower Development Fund (ZIMDEF)

The fund provides TVET institutions with resources for training material and equipment, infrastructure improvement and expansion. Additionally, the fund finances skill upgrade courses for semi-skilled workers and apprenticeship training. Funding is generated through a 1% training levy paid by employers from their monthly wage expenses.

## 3. Problem Assessment of TVET in Zimbabwe

The government of Zimbabwe upon Independence in 1980 was committed to development. This is evidenced by massive expansion in education, health, housing, agricultural and industrial infrastructure. This growth was however short lived as from 1990 onwards the country slumped down and eventually was in an economic crisis which has

deep rooted origins in its macro and micro economic and fiscal policy blunders that have plunged the country into a deep economic crisis. (Reinhart and Rogoff, 2010).The early 1990s were characterized by economic decline due to the adoption of the Economic Structural Adjustment Programme due to the pressure for economic liberalisation pushed by the world bank and international monetary fund. ESAP had negative effects on

the provision of education and TVET in Zimbabwe. These included substantial cuts in expenditure on education and basic infrastructure. (Munyaradzi Mubaya; Tapuwa R- 2017).

Despite the efforts being made to promote vocational education in Zimbabwe, the system is faced with a number of challenges which include; lack of adequate resources (material and financial), Lack of up to date equipment in schools, Quality of teacher and current professional needs; and High staff turnover because they are marketable within and outside the country. These will be discussed below:

### 3.1 Lack of adequate resources

The ministry of education sports and culture in Zimbabwe does not have the required material in educational institutions due to the cuts in expenditure owing mainly to the harsh economic conditions. As a result in TVET training centres most of the equipment that is being used to conduct studies in various subjects in out-dated and the cost of repairing the broken machinery cannot be met by the funds that are available. TVET centres have no or limited finances to invest further in research and development as a result any extra research that is underway in these centres is usually hindered by limited finances.

### 3.2 Quality of teacher and current professional needs

The majority of teachers are untrained and lack appropriate qualifications for their position. The education environment is very dynamic world hence it is necessary that teachers engage in continuous personal development programs to match the changes. However, most of the TVET centres in Zimbabwe employ trainers that still have old knowledge and this in its self becomes a challenge because of the ever changing professional needs in each field.

### 3.3 High Staff Turnover

The period 2008 in Zimbabwe gave rise to a huge migration of the labour force in Zimbabwe mainly due to the hyper- inflation. Teachers formed a large percentage of these migrants as they sought greener pastures in the neighbouring countries such as South Africa that offered attractive packages as compared to that offered by the Government of Zimbabwe. This has greatly affected the TVET sector in Zimbabwe as there is a shortage of skilled personnel to train students.

## 4. Recommendations

In order to combat the challenges that the TVET sector is facing in Zimbabwe, the following strategies for TVET may be adopted:

### 4.1 National Skills Development Policy

For a TVET system to be able to play its role more effectively, it is important to ensure that there exists an enabling and TVET friendly environment nationwide. Such an enabling environment can be achieved by putting in place harmonized national TVET policies, provision of adequate funds, developing positive social attitudes towards training and enhanced management. The increased public-funding will increase the subsidy among the households through education loans as well as enabling colleges to purchase adequate material for training. The government of Zimbabwe should recognize that TVET is an investment not a cost, with significant returns including the well-being of workers, enhanced productivity, international competitiveness and economic growth in the long run.

The government through the Ministry of Higher and Tertiary Education and with assistance of the International Labor-Organisation formulated a draft national skills development policy. The policy framework is intended to guide the reform of the skills development sector necessary to make the education and training system more responsive to the socio- economic development of Zimbabwe. The mission of the policy is to provide relevant skills to individuals for sustainable economic development and self- fulfilment through a system which is accessible, equitable, inclusive, financially sustainable and responsive to technological developments.

The government can regulate VET system by establishing sectoral training funds or imposing development levy on the tuition fees so as to upgrade material. Courses that require the use of sophisticated machinery may have a certain percentage added onto their tuition so as to acquire the necessary up to date training equipment, whilst those

that have less need of machinery may have a lesser percentage added and still manage to produce highly skilled persons.

### 4.2 Employer Engagement in VET

Private firms maybe involved in TVET by the establishment of Management information systems (MIS) and Knowledge management systems (KIS) to provide a process that facilitates an effective and timely internal information and data collection from different TVET institutions and Training Providers and make it accessible to all levels with a view to manage TVET effectively. These systems if developed by the enterprises will also support the management of most of the administrative functions such as finance, personnel, student admission, resource planning, payroll functions and library functions.

In order to convince and engage employers and enterprises to be significant players in TVET the following should be put into place; systematic professional development of TVET trainers / instructors, assessors and moderators as well as keeping pace with technological advancements and use technology appropriate in technical education and training.

### 4.3 Staff Development, Curriculum Development and Review

One of the challenges that was identified in the TVET system of Zimbabwe is that of a high turnover of staff. Technical colleges can develop an incentive system for their teachers based on the results of students after taking national examinations. This can work a tool for motivating staff to retain their jobs and reduce the number of those that are leaving their jobs because of a low wage.

It is important that the trainers in TVET institutions have the necessary skills in their various fields of study. Staff development programs such as training workshops may be used a way to develop teachers as a form of continuous personal development so that their methods of delivering training maybe in line with the current global situation. The curriculum should be revised at the end of each year as technological advancement change over time and so do economies and education systems. The ministry of higher education has since introduced e-learning in most of the technical colleges as a new curriculum.

### 4.4 Individual Involvement

It is important that individuals support TVET programs by changing their mind set of parents and communities as a whole about vocational education being a second choice to academic education. Individuals should understand that knowledge about something is un-debatably the most important thing in any case or situation, therefore investment in getting knowledge and making information accessible should be priority despite it being vocational education or tertiary education. With the vast amount of information available because of the internet today, individuals need to understand that the need to attend traditional education institutes is not necessary and that one does not necessarily need to have thousands of dollars in order to attain knowledge, education and skill in a certain field. Individuals are therefore advised to take part in short course training programs as a way to gaining knowledge cheaper and faster.

TVET programs may be a form of gaining business ideas. Courses such as welding, designing and catering may be used by individuals to start up their own businesses. Considering that there is a high number of unemployed youths in Zimbabwe, these programs may be a stepping stone for them to have some form of self- employment.

## 5. Conclusion

The research was aimed at investigating the development of Technical and Vocational Education in Zimbabwe. The intention is to come up with an education system that mitigates poverty through enhancement of employment creation. The government of Zimbabwe has begun to put in place

strategies to implement TVET in the education system by revising the curriculum. The study showed that some of the projects underway were the development of an Exams Qualifications Authority (ZIMEQA) which will serve as the main body for facilitating mobility within the education system and promote training career pathways. The study also revealed that the government is empowering youths through the command agriculture projects as a measure of reducing youth unemployment due to a lack to adequate skills. The lack of adequate resources (material and financial), Quality of teacher and current professional needs and the Lack of up to date equipment in schools were identified to be the major draw backs to the growth and development of TVET in Zimbabwe.

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