

**AGRICULTURE VOCATIONAL EDUCATION PROGRAMME AND THE
PROMOTION OF JOB CREATION SKILLS IN THE FREE STATE TECHNICAL
VOCATIONAL EDUCATION AND TRAINING COLLEGE**

William Mandla Thwala

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PROMOTION OF JOB CREATION SKILLS IN THE FREE STATE TECHNICAL
VOCATIONAL EDUCATION AND TRAINING COLLEGE**

By

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(201415964)

**A thesis submitted in fulfilment of the requirements for the degree of Doctor
of Philosophy**

University of Fort Hare

Supervisor: Professor. Emmanuel O. Adu

2017

DECLARATION

I declare that the study entitled Agriculture vocational education programme and the promotion of job creation skills in Orange Free State (OFS). F.E.T College, District of Phuthadithjaba in the Free State Province is my original work. It has not been submitted to any award of any degree. All information from other sources made use of in this thesis is included in the reference list and acknowledged.

Declaration of Plagiarism

I, William Mandla Thwala student number 201415694, hereby declare that I am fully aware of the University of Fort Hare Policy on Plagiarism and that I have taken every possible precaution to comply with the regulations pertaining to this policy.

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I, William Mandla Thwala, student number 201415694, hereby declare that I am fully aware of the University of Fort Hare Policy on Research Ethics and that I have taken every possible precaution to comply with the regulations pertaining to it. I have obtained an Ethical Clearance Certificate from the University of Fort Hare Ethics Committee, for which the reference number is ADU181STHW01.

Signed: *Thwala, W. M*

Date: 29/07/17

ABSTRACT

The aim of the study was to investigate agriculture educational programme and the promotion of job creation skills in the OFS FET College. The interpretivism paradigm and design approach were adopted in this qualitative research. The sample consisted of three final year students, three facilitators and one coordinator. The non-probability and purposive sampling techniques were used for the qualitative research. The qualitative data was descriptive, and thematically analysed. The study found that there is a big demand for agricultural professional in South Africa but very few are choosing this career. The quality of education in agricultural sector is not where it should be. The demand for skilled people in the sector is growing, while the number of students enrolling in agriculture-related training continues to decrease. Africa's agricultural education is failing to produce a new wave of farmers. The study found that FET colleges did not train and provide enough skills to students to enhance development in agriculture sectors and therefore make students non-productive at labour market. The study also found that the FET colleges had left a trail of low skills, partially educated and jobless youth behind. The study also found that the curriculum tended to be outmoded, irrelevant to adequately address the challenges facing modern agriculture. The curriculum still focused on farm production rather than encompassing all segments of agricultural value chains, entrepreneurship, and agriculture business processing market. Agriculture forms the basic food security of every country. It contributes a large proportion of gross domestic product in many developing countries and is the source of income and subsistence for many of the poorest and most vulnerable individuals and households.

Key words: Agriculture, Job creation skills, Vocational educational programme, Further Education and Training.

CERTIFICATION

I certify that this thesis was written under my supervision



Supervisor
Prof Emmanuel O. Adu

30/07/17

Date

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DEDICATION

This work is dedicated to the University of Fort Hare for allowing me to leave in the shelves a shared knowledge with academics who might find it valuable and get stimulated. This work is also dedicated to the icons, the likes of Nelson Mandela who unceasingly fought for the liberation of the brain of a man. I also dedicate this work to all Thwala's who did not have the opportunity to study this far. Finally, the dream has been accomplished.

ACRONYMS

ABCs	Agri-Business Centre
ASGISA	Accelerating and Shared Growth Initiative for South Africa
AET	Agriculture Education and Training
ALMP	Active Labour Policy
ATVET	Agriculture Technical Vocational Education and Training
CAADP	Comprehensive Africa Agriculture Development Programme
CAP	Common Agricultural Policy
CHAVET	Challenges on Agriculture Vocational Education and Training
CETs	Community Education and Training Centres
CDW	Community Development Workers
CFPR	Challenging the Frontiers of Poverty Reduction
COPCHAVET	Coping with Challenges on Vocational Education and Training
CRDP	Comprehensive Rural Development Programme
DAFF	Department of Agriculture Forestry and Fisheries
DESA	Department of Economic and Social Affairs
DHET	Department of Higher Education and Training
DoL	Department of Labour
DWAF	Department of Water and Forestry

EARRD	European Agricultural Fund for Rural Development
ECA	Economic commission for Africa
ECE	Economic omission for Europe
ECLAC	Economic Commission for Latin America and the Caribbean
EPWP	Expanded Public Works Programme (South Africa)
FAO	Food and Agricultural Organisation of the United Nations
FBOs	Farm Business Organisation
FET	Further Education and Training
FFSs	Farmer Field Schools
FTCs	Farmer Training Centre
GDP	Gross Domestic Product
GET	General Education and Training
GVC	Global Value Chain
IFAD	International Fund for Agricultural Development
IICA	International Institute Cooperation in Agriculture
FFT	Food for Training
HEQC	Higher Education Quality Council
HOOPSS	Helping Out Our Primary and Secondary Schools
HSRC	Human Sciences Research Council

IGA	Income Generation Activity
ILO	International Labour Organisation
ITC	International Trade Centre
LICs	Low Income Countries
MDC	Millennium Development Goals
MICs	Middle Income Countries
MIJARC	International Movement of Rural and Agriculture Catholic Youth
MOOCs	Massive Open Online Courses
MTSF	Medium Terms Strategy Framework
NDS3	Joint National Skills Development Strategy
NQF	Namibia Qualification Framework
NSFAS	National Student Financial Aid Scheme
NYEP	National Youth Employment Programme
OECD	Organisation for Economic Co-operation and Development
PSNP	Productive Safety Nets Programme (Ethiopia)
RDM	Rural District Municipalities
SAQA	South African Quality Assurance
SETA	Sector Education Training Authority
SIP	Special Investment Programme

SMME	Small and Medium and Micro-Enterprise
TUP	Targeted Ultra Poor Programme (Bangladesh)
UNESCO	United Nations Educational, Scientific and Cultural Organisation
UN Women	United Nations Entity for Gender Equality and Empowerment of Women
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
UNFIP	United Nations Fund for International Partnership
UN-HABITAT	United Nations Human Settlements Programme
UNIDO	United Nations Industrial Development Organisation
UNISDR	United Nations International Strategy for Disaster Reduction
USAID	U.S. Agency for International Development
UNITAR	United Nations Institute for Training and Research
WFP	World Food Programme
WHO	World Health Organisation
WTO	World Trade Organisation
YGSs	Youth Saving Groups
YPARD	Young Professionals for Agricultural Development

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CHAPTER ONE

INTRODUCTION AND BACKGROUND TO THE STUDY

1.1 Introduction/Background to the study

This section covers the background to the study, the problem statement, research questions, aims and objectives of the study, significance and rationale for the study as well as the delimitations of the study.

Agricultural enterprises are undergoing a process of continuous change produced by different causes, such as the effect of climate change on crops or the population's demand for quality food at a reasonable price produced by environmentally friendly agriculture (Lavilla, 2011). Farmers and workers are adequately trained during their life to cope with these challenges, something to which Agricultural Technical and Vocational Education and Training (ATVET) schools contribute positively in Europe.

In the 1970's agriculture experienced a remarkable renaissance in Northern and Central Europe (Knoll, 2013). Many current movements of educational reforms, viz. the comprehensive school movement and the movement for community education opened the curriculum and practical learning and refer to the project method as far as the implementation of their programmes is concerned.

Globally, EUROPEA, a European agricultural school, carried out a project from 2009-2011 called (Challenges on Agriculture Vocational Education and Training) (CHAVET) which developed a list of proposals and matrixes with measures to face the challenges and to be prepared for the future (Lavilla, 2011).

Another project; Coping with Challenges on Vocational Education and Training (COPCHAVET), was formed (Lavilla, p.1). It was aimed at contributing to the adaptation and preparation for the future on the AVET schools.

This project was approved by eight countries, namely: Australia, Spain, Slovakia, Slovenia, France, Luxembourg, the Netherlands and Poland on 8 July 2011. The same is true for US with numerous approaches to revamping education (Lavilla, p.1).

Alongside the project was a Global Value Chain (GVC) adopted internationally by organisations concerned with economic development such as the World Trade Organisation (WTO), the Organisation for Economic Cooperation and Development (OECD), the International Trade Centre (ITC), the International Labour Organisation (ILO) and the United States Agency for International Development (USAID) (KIT and IIRR, 2010).

The (GVC) explains the social and organisational structures of the global economy and its dynamics, the level being the network of labour and production processes whose end result is a finished commodity (COMCEC, 2015). It also analysed the international fragmentation and geographical expansion of contemporary value chains and value creation and captured therein.

The duty of the (GVC) was:

- Analyse the input-output structure, and identify the main activities/segments of the value chains such as production, processing manufacturing, and distribution;
- Value adding activities including design, marketing and research;
- Spatial configuration of the chains such as the dispersion of production and consumption activities;
- governance structure-how chains are organised and managed;

- Institutional framework, regulatory conditions and policies which shape the chain (Gereffi and Lee cited in COMCEC, 2015 p.14).

Internationally, Africa's economy has been riding the crest of a global commodity that could transform the continent's prosperity (Kende-Robb and Watkins, 2013). However, Agricultural Technical Vocational Education and Training (ATVET) has been hard-hit over the past few decades as developing country governments cut their public funding throughout the 1980's and 1990's. Urbanisation has lured people and resources away from rural areas (Jones, 2014).

Revolutionary research, and technical development internationally, as well as national interest in supporting agricultural development have shifted from a skills-based approach for individual producers toward a science-based approach that focused on tertiary education, research for technology transfer and non-formal rather than technical training for farmers (Jones, p. 2). It remains questionable whether public funding cuts were aimed at promotion of youth unemployment in Africa.

Though agricultural value chains gained power to stimulate economic growth (Manquire, 2011), rural job skills creation remains a problem. The modern value chains need skilled workers in agriculture that are not related to traditional roles of production and small-scale sales.

To achieve such transformations Africa needs to:

- acquire access to formal financial services;
- strengthen the continent infrastructure; and
- provide funds for public investments (Kende-Robb and Watkins, 2013).

As a result of this, a Comprehensive Africa Agriculture Development Programme (CAADP) was launched to monitor the ATVET.

The expansion of ATVET into more countries will focus on a curriculum development in agriculture at national level in response to African challenges of rural unemployment and income disparities (Abraham, 2012).

This could not materialise without funds from the governments, and the promotion of job skills creation but unemployment remain a challenge to African countries.

In Sub-Saharan Africa, about 65% of the labour force is involved in agriculture. Despite this significance, agriculture is failing to provide a decent living due to unemployment in rural areas. Rural labour markets are distinguished by high levels of informality, a preponderance of casual employment and a high rate of self-employment. Labour legislation is rarely enforced and rural workers are poorly organised (Pye-Smith, 2012).

The growth of the non-farm economy will be crucially important when it comes to creating new jobs in rural areas in Sub-Saharan Africa. It can play a vital role in linking farmers with national and international markets and ensuring that greater share of the profits in the value chain returns to rural areas. This is important to countries which are undergoing the early stages of economic development (Pye-Smith, 2012).

Sub-Saharan Africa has the world's highest youth population growth rate and highest share of youth in the working age population. Still, the region's youth employment problem should be seen in qualitative rather than quantitative terms. This is true to low income countries and for the most vulnerable groups: young women, youth in rural areas, youth from poor families and those with no or little education (Pieters, 2013).

In Sub-Saharan Africa a number of programmes have been attempted to combine skills development with social protection in order to reduce poverty on a long term basis during the last decade.

These programmes have explored different ways of combining social protection on provision and skills development, primarily through public works programming, in recognition of the fact that a PWP wage alone will not be sufficient to promote gradation (McCord, 2012).

Private sector employment creation has been weak, due to low growth/elasticity of employment, especially in resource-rich countries. Solid growth of the past decade has not led to significant improvements in labour market outcomes and poverty reduction, although there are positive developments in terms of fast productivity improvement (ILO, 2013a cited by Pieters, 2013, p.23).

The informal economy is a structural feature of Sub-Saharan countries' economies employing up to 90% of the working age population in low-income counties (AFDB, 2012 cited by Pieters, 2013, p.23). Because of its pervasiveness, the informal sector has to be part of any policy addressing youth employment. Low labour productivity and earnings in self-employment and informal economy are limitations to sustained poverty reduction.

In countries where the majority of youth is in rural areas increasing agricultural productivity and non-farm activities are crucial. As rural-urban migrants are often worse off than urban youth, investing in rural areas is also needed to prepare youth for more successive migration. Low productivity is related to lack of learning opportunities for youth in the formal economy. But also in basic formal education, gender gaps in the environment and poor quality of education remain an urgent challenge (Pieters, 2013).

In the agricultural sector, Farmer Field Schools have had considerable success in helping farmers gain new skills. By 2008 they had benefited 10-20 million people in over 80 countries. A successful variation, Junior Farmer Field and Life Schools (JFFLS) pioneered by the Food and Agriculture Organisation (FAO), has benefitted over twenty thousand young men and women in sixteen countries. The schools have helped to increase youth employment and access to markets through the creation of Youth Farmers' Associations (Pieters, 2013).

In writing about VET in Sub-Saharan Africa, the director of UNESCO-BREDA refers to the fragmented TVET governance arrangements' as continuing to plague the TVET space in Africa, a situation referred to by Ndonga-Jatta (2009). Recent analysis for Sub-Saharan Africa (World Bank, 2008) emphasises the need for a comprehensive strategy including a stable macro-economic environment, encouraging and supporting entrepreneurship in the formal and the informal sector, expanding rural job opportunities both in agriculture and outside, improving education and skills, and addressing demographic issues (Laderchi, Zacchia and Kweka, 2009).

To address youth employment strategies, countries need an integrated youth employment approach involving different levels of government and several stakeholders, ranging from relevant ministries to education and training providers and social partners.

Although youth needs to be targeted with specific policies, it is important to link youth employment strategies with overall development and employment policies. Because of the complex nature of developing country labour markets and the diversity of income-generating activities that people undertake, youth employment challenges require policy action beyond education and labour markets in areas such as credit markets,

infrastructure, business regulation and rural development and the diversity of income generating activities (Pieters, 2013).

Evidence-based policies addressing youth employment challenges require strong labour market information and an analysis system. Information is crucial for setting realistic targets and measuring outcomes. To understand youth's pathways to decent work and inform policy making, employment measures need to be available for different subgroups of youth (male and female rural and urban youth at different income levels and youth at different education levels). The same holds for evaluations of specific policies and programmes (Pieters, 2013).

This has necessitated Agricultural Education and Training to strengthen its innovative capacity of individuals and organisations to introduce new products and processes that are relevant to small farmers who represent the largest group of agricultural producers in the region (Spielman, Davis and Ochieng, 2008).

Emphasis was also placed on innovation capabilities of Agricultural Education and Training (AET) to strengthen professionals and build networks and linkages. New programmes that are attuned to the different needs of society induce change.

Labour legislation, poor organisation of rural workers and the government's lack of funds to introduce policies that can stimulate growth of rural farms or non-farm sector investment in education vocation and training in rural areas aggravated the situation (Pye-Smith, 2012).

South Africa has attempted to bring a highly fragmented system into a unitary system through a series of radical reforms (Wedekind, 2010). In the struggle against unemployment, poverty, and inequality, the South African government underwrites the importance of the development of human capital as stated in its strategic plans, namely

the Accelerating and Shared Growth Initiative for South Africa (ASGISA) (2006-14) and the Joint National Skills Development Strategy 3 (NSDS3) (2010).

In order to fight unemployment and lack of trained personnel in the labour market, the education sector invested heavily in the improvement of Further Education and Training (FET) Colleges (VVOB, 2011.p.1). Public financial support for AET was drastically reduced during the past two decades, and can only cover less than a quarter of the needs of the training institutions. As a result, student support in terms of scholarships has been drastically reduced by as much as seventy to eighty percent in the last decades due to limited or stagnation of budget allocation in a time of increasing demand for training (Mayaki, 2013). This is true of National Student Financial Aid Scheme. National Student Financial Aid Scheme (NSFAS) has been severely blamed for the insufficient support to some students. As a result, some do not graduate due to outstanding balances in the institutions. With no skills and no jobs, youth unemployment is increasing.

This is a serious problem in South Africa. Studies reveal that a remarkable rapid development in vocational education in rural areas has been made in countries like China, Korea and India (Wang, Khan and Zhang, 2012).

The recent published (ILO) report on Global Employment Trends for Youth stated that today's youth represents a group with serious vulnerabilities in the world of work (Bennell, 2007). In a survey of 36 African countries, about major challenges youth face in labour markets, 54% found a mismatch between what job seekers offered and what employers required from them, and 41% identified a general lack of skills among job seekers as a major obstacle (AEO, 2012).

Most rural youth are either employed (waged and self-employed) or not in the labour force. The issue is not so much about unemployment but serious under-employment in low productivity, predominantly household-based activities.

It is widely alleged that rural youth are increasingly disinterested in smallholder farming, which is viewed as dirty work. Thus, rural confronting youth tend to be relatively mobile, both nationally and increasingly across international borders (Bennell, 2007).

A population of 43 percent still live more or less permanently in rural areas and an even larger proportion of this group, 71percent, are poor people (Jacobs and Hart, 2012). The poor quality and limited education resources have created a legacy of illiteracy among farm workers, a situation that the pro-poor policies after 1994 have not been able to change in any significant way (Gardiner, 2008).

Bennell (2007) argued that slowing global employment growth and increasing unemployment, underemployment and disillusionment have hit young people hardest. As a result, today's youth are faced with a growing deficit of decent work opportunities and high levels of economic and social uncertainty.

Since World War 2, Technical and Vocational Education and Training (TVET) has programmes in developed countries that have been situated as an addendum to secondary education or within the post-secondary education context as an alternative to university training (Hoffman, 2011).

In developing countries, TVET has historically been less clearly defined with programmes and institutions ranging from alternatives to general primary and secondary education to job-specific skills training that is more traditional (King, 2011).

This has caused a discrepancy between agricultural education and other types of TVET training (Jones, 2014).

Findings by Hartl (2009) show there have been inadequate links between agricultural education and training institutions, and relevant role-players who provide strategic information about employment and entrepreneurial opportunities in agricultural sectors, and that public and private providers of education and training poorly serve rural youth when it comes to job opportunities available to urban youth. The same is true of other educational staff or trainers in rural areas in some countries. The quality of teaching is poor, and little is done about vocational and skills training in rural areas. Previously disadvantaged communities and women and the disabled continue to have poor access to quality agricultural education and training. This is a result, of barriers like affordability, admission requirements, physical distance from training centres, literacy and numeracy language instruction, and scant resources available to those charged with the responsibility of providing agricultural education and training to these communities (Hartl, 2009).

Donors, the government and the private sector need to achieve better quality in training and fill the gap caused by years of neglect (Hartl, 2009). Stumpf and Niebuhr (2012) have found that Vocational Education and Training in South Africa does not deliver someone productive in a particular work situation.

Wedekind (2010) argued that one recurring tension at FET Colleges was the fact that the area of skills development was contested between the Ministries of Education and Labour. Socio-economic factors such as poverty and unemployment have a direct influence on education (Gardiner, 2008). The blue-collar stigma in white-collar society has restricted students' participation in agriculture, as it has been seen in a narrow

context, equated with primary production as opposed to business, and incorporating value-adding elements (Phillips, 2012).

Rural development is a strategic priority of the 2009-2014 administration and finds expression in Outcome 7, as well as the Government of South Africa's (GSA) plan of action (Jacobs and Hart, 2012).

The Department of Rural Development Programme and Land Reform bridging rural underdevelopment identified 24 rural district municipalities with significant infrastructure backlogs and low levels of human development indicators located mainly in former homelands. But a coherent status of the skills development profile of these areas does not exist (Jacobs and Hart, 2012).

Education, training and development of necessary skills would be equally vital to achieve GSA's outcomes and implementing action plans in rural areas had it not been for two constraints prevalent with respect to rural areas.

- agriculture is considered the key driver underpinning rural economic development;
- most rural research focuses on skills, training and education and tends to link these to agricultural and farming technical requirements (World Bank, 2007).

Rural youth tend to be poorly educated as compared to urban youth. Poor quality education, high (direct and indirect) schooling costs and the paucity of jobs continue to dampen the demand for education among poor parents (Bennell, 2007).

Traditional safety nets are breaking down the rural youth expectations for life increasing with access to global information technologies. Rural youth have also been

involved in civil wars, and other forms of conflict in a growing number of countries which poses a threat to the long-term development prospects of these countries.

Also farm schools are located on privately-owned commercial farms. They provide very occasionally secondary education rather than primary education.

The poor quality and limited availability of education has created a legacy of illiterate farm workers a situation in which the pro-poor policies have not been able to change in significant ways after 1994 (Gardiner, 2008).

Patterson (2004) pointed that while emphasis on agriculture in rural school education facilities still exists, various political and economic reasons, agriculture is far from locally accepted as a route out of poverty. Any status report on South Africa's rural skills development must clarify what is meant by rural from the start in light of the country's history of apartheid spatial engineering.

It is worth stating from the outset that little is known about rural skills development per se as most studies and policies concentrate on the sectorial or occupational distribution of skills rather than their spatial location as such (Jacobs and Hart, 2012).

Rural skills are also traditionally associated with workplace and occupational profiles in natural resource dependent sectors (World Bank, 2007 and Kraak, 2009a cited in Jacobs and Hart, 2012).

Basic skills and beyond for rural youth need to be met as they motivate them to study, training to give them skills for the labour market and opportunities for some to pursue higher education (Brewer, 2011). But this needs support which accounts for a problem facing the government in South Africa.

The supply of post-schooling or tertiary education in rural areas is challenging and reflects the legacy of apartheid. According to the Green Paper, rural areas currently experience an extreme shortage of post-school or higher education facilities and associated expertise (DHET, 2012).

To address the shortage the Department of Higher Education and Training (DHET) proposes the establishment of one institution per district offering Further Education and Training (FET) programmes by 2030. Alongside this strategy is the establishment of Community Education and Training Centres (CETs) as alternatives to address the specific requirements of out-of school youth and adults (Jacobs and Hart, 2012). This may not materialise since youth have never been involved in decision making.

In developing countries, the vocational education sector tends to be smaller, (22%) (students enrolment) than in Organisation for Economic Cooperation and Development countries and geared to secondary education and uncoordinated with vocational centres dispersed under various ministries. Such programmes in private participation (e.g. (Brazil's SENAR) and designing curricula (Namibia's Community) have been most effective (Brewer, 2011).

Food security is critical in many parts of the world (du Toit, Ramonyai, Lubbe, and Ntushelo, 2011). However, food insecurity has emerged as a global crisis following the global economic meltdown (Jun-Rose, Nella, Steyn, Gericke, Maurinder, Davis, and Parkker, 2006).

June-Rose, et al. (2006) stated that according to (2004) report, more than 814 million countries are under-nourished, of these 204 million people live in Sub-Sahara including South Africa, a country which is plagued by poverty and unemployment.

Recent definitions of food security includes concepts of food availability, access to food, use of food, and the stability of the food system (Blignaut, De Wit, Knot, Midgley, Crookes, Drime, and Nkambule, 2014) In 2008 the Food and Agricultural Organisation (FAO) reported that the number of people experiencing chronic hunger has increased between 1990 and 2007 (du Toit, Ramonyai, Lubbe, and Ntushelo, 2011). Recent survey by Statistics of South Africa (General Household Survey, 2009) reported an estimated 20% of African households have inadequate food access (du Toit et al, p. 4).

Agriculture is home to over 40 000 commercial farmers, contributes 4% to the Gross Domestic Product(GDP) and accounts for 10% of reported employment.(Africa Check,2005), However, agriculture is failing to produce a new wave of farmers and agriculturists with fewer youngsters being drawn to study agriculture as a career (Joubert, 2013).

Agriculture also contributes to poverty alleviation, by reducing food prices, creating employment, improving farm income, and increasing wages. It also contributes to the African economy in the provision of food for the increasing population, and the supply of adequate raw materials to the growing industrial sector.

It is also a major source of employment, a generator of foreign exchange earnings, and a provider of a market for the products of the industrial sector, among others (Francis, and David, 2012). However, the agricultural sector is associated with a rapid decline in employment and a loss of income to workers with no clarity on whether it has played any role in the reduction of poverty in the country since 1995 (Bhorat et al. 2011 cited in Blignaut et al, 2014).

African agriculture remains traditional and concentrated in the hands of smallholders and pastoralists and the neglect of agriculture has resulted in the mass exodus of rural

dwellers and has made the rural areas qualitatively and quantitatively depopulated and less attractive for socio-economic investment.

Making agriculture, work must be a central component of policy approaches to food insecurity reduction and increasing economic growth (Hart, et al., 2009) revealed that in South Africa there are no specific and accepted measures of food security and no regularised ways of monitoring it. These gaps restrict the ability of policy makers to address insecurity.

Increased investment in agriculture will help to redress the current inequalities. Empowering people to grow their own food subsistence or income generation will provide nourishment and potential income to many people in the country (du Toit, et al., p.11). Colleges and universities are producing under-experienced job candidates while a lack of training among skilled, and semi-skilled, unskilled workers is restricting the sector from the bottom.

Theo- Venter, cited by Joubert, (2013, p.2) stated that “As soon as you start training from the bottom, you are training a person to be a farmer one day”. That solves a natural way the problem of the developing farmer.

Skills shortage, in South Africa are the consequences of the interplay of several complexes socio-political and economic factors. With the advent of democracy in 1994, the new government inherited a divided education and training system that comprised fifteen education departments which the apartheid government established along racial and regional lines. This education and training system produced super-structural chaos that wasted funds; it was inefficient and produced very poor graduates (Rasool and Botha, 2011).

The inability of the education and training system to meet the growing demands of local firms for skilled graduates aggravated the situation. The rising aspirations of the previously disadvantaged majority of the population further compounded the demand-driven needs of the labour market (Kraak, 2008 cited by Rasool and Botha, 2011.p.2).The South African economy experienced an economic growth after 2002. This led to a shortage of skilled workers in virtually all economic sectors.

Apart from the shortage, of skills, factors like affirmative action, emigration and employment equity also contributed to unemployment. Many skilled people thought that the government did not appreciate their talents or skills. Furthermore, a survey the South Africa Migration Project conducted showed that approximately 83% of White people and 20% of Black people opposed the government's affirmative action policy thus emigration was the option (Rasool and Botha, 2011).

About four hundred thousand students attend FET colleges and seven hundred and fifty thousand attend higher education institutions. Given the human resources requirements in the economy, school leavers attending higher education institutions should increase over the next few years. Unfortunately, FET colleges were established to provide for a certain target market; that is, the students who preferred working with their hands (Ramdass, 2007). A bill in parliament in October 2006, established colleges as separate institutions from schools and provided a framework to strengthen responsiveness, coordination and quality.

It revealed that from 2009 the colleges would be able to offer intermediate and high-level skills to students from the age of 16 to mature adults and give effect to the long held idea for providing lifelong learning. The indicators of economic growth and

development point to the fact that there should be more artisans being trained for all economic sectors in South Africa (Ramdass, 2007). This has not been fulfilled.

About 13% of people in the agricultural sector were unemployed in 2011/12 and 10% in 2012/13. The skills shortage in agriculture was 3.1%. Unemployment in agriculture was 25.1% (Annual Report 2012-2013). In the period 2002-2007, 49.7% more vocational skills were needed, while 34.9% of university graduates could not be employed in the agricultural sector. About 2057 graduates were recorded in 2007 and 120 000 in 2009 in FET Colleges (Mayatula, 2009).

A recent survey by Statistics South Africa (General Household Survey, 200) reported an estimated 20% of African households have inadequate food access. During 2008 the food access problems were serious mostly in Free State with 35% of the households having inadequate food access. They were followed by KwaZulu-Natal with 23%, Eastern Cape 21.4% and Mpumalanga with 21.5%. Limpopo (11.9%) and the Western Cape (14.5%) had the least food security problem (Ramonyai, Lubbe, and Ntushelo, 2011).

The unemployed rate in agriculture in 2008 was 21.9%. The time frame for unemployment is affected by the nature of the job searching process (Buembo, 2013). The weakening links between FET Colleges and employers means that skills obtained from the Colleges may be somewhat irrelevant to the labour market (Cassim, 2014).

Table 1: Number of people employed in agriculture in South Africa: 2001-2013

Employed in agriculture:	2001	2011	2012	2013
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968 000	598 000	638 000	706 000
(7.7%)	(4.6%)	(4.7%)	(5.0%)

Source: Stats S.A. (2013b), cited in Meyer, 2005:4)

Table2: Number of people employed in agriculture taken on a quarterly basis 2013 and 2014

Years	Oc.t – Dec.2013	Jul.-Sept.2014	Oct.- Dec. 2014
Number	713	686	742
%	10.6%	1.7 %	8.2%
Unemployed	24.1%	25.4%	24.3%

Source: Annual Report 2012/2013:

Given the current emphasis on project, value networks as a path to agricultural and rural skills development, there is a great opportunity for TVET to play a role in training individuals for a wide range of agriculture-related jobs (ILO, 2012). ATVET has the potential to be demand-driven, responding to the current needs of employers and employees in the changing field of agriculture and the combination of agricultural value chain growth, and workforce development will provide a myriad of opportunities (Maguire, 2011).

To this end, rural areas can produce creative young black industrialists who can create sustainable jobs and improve the economy (Masina, 2015), therefore, skills development and technical training are central to agricultural and rural employment to prepare young people for work in the formal and informal sector in rural areas and thus play a role in poverty reduction (Hartl, 2009).

The analysis of the challenges of governance and management policies has demonstrated:

- A lack of coordination and strategic alignment to the national development priorities, particularly those related to the national agricultural priorities. The Agriculture Education and Training (AET) institutions lack a clear vision and strategic plan to address the agricultural sector. They have been poorly represented during the Comprehensive Africa Agriculture Development Programme (CAADP) compact formulation and other parts of the NAIPs (Mayaki, 2013);

The discrepancy in this approach can be found in the whole chain of the agricultural sector in the form of vocational and extension services to farmers' organisation and the private sector (Mayaki, 2013).

- The fragmented administrative structure of AET with a leadership under various government ministries (Education, Vocational Training or Agriculture) hampers a coherent approach towards a common objective.

AET are isolated in a complex structure, over centralised or divided administration structure with an academy leadership under the Ministry of Higher Education while their graduates should serve Agriculture Ministry needs (Mayaki, 2013).

However, the purpose of the development of the AET strategy was to:

- Guide the development and provision of a nationally coordinated, effective responsive and quality assured AET that is accessible to all South Africans;
- Foster a unified vision by all AET service providers;
- Instil public accountability, guide policy formulation, and create a framework for the maintenance, coordination, implementation and review of AET;
- Instil confidence in the AET system as a crucial element of its success;
- Address the many challenges facing AET identified through the competitive analysis of the present system;
- Address the historical emphasis on primary production and widen the spectrum of disciplines included in AET to incorporate current future trends, and opportunities to facilitate the adoption of an appropriate legislative and regulatory framework necessary to protect the education and training rights and interests of agricultural and rural role players (Higgblade, Kaneene, Tschirley and Minde, 2013 p.4).

In Africa agriculture is still perceived as a path to poverty, and the dream of many farmers' families is to keep their children away from its limitations that they have badly

experienced. Not surprisingly agriculture enrolments both in terms of total number and quality of students show declining shares at all post-secondary levels.

To this end, Agricultural Science is the study of the relationship between soils, plants and animals in the production and processing of food, fibre, fuel and any other agricultural commodities that have an economic aesthetic and cultural value.

It is the integrated science that combines the knowledge and skills from Physical, Life, Social and Earth Sciences and Engineering, Mathematics and Economics (RSA, 2006). Agricultural Sciences are aimed at developing and analysing sustainable agricultural practices, indigenous agricultural knowledge and historical development, all interrelated issues in agriculture. The competencies should be developed in the context of the following knowledge areas: soil science, plant science, agricultural economics, sustainable natural resource utilisation and management of the environment (RSA, 2006).

Agricultural Sciences for learners therefore should be to:

- Develop awareness of national priorities such as food security, sustainability and the alleviation of poverty considering both subsistence and commercial farming practices;
- Develop an awareness of the management and care of the environment, and natural resource;
- Develop problem-solving mechanisms within the contexts of agricultural production, processing and marketing practices;
- Be aware of the social and economic development of the society at large through personal development in commercial and subsistence farming

enterprises by communicating, by working effectively in groups and being creative and innovative;

- Become informed and responsible citizens in the production of agricultural commodities, caring for the environment and addressing the social justice issues;
- Develop awareness of gender inequity and other imbalances that exist in the agricultural industry encouraging meaningful participation of female learners with special educational needs;
- Develop social and personal skills through understanding ethical and responsible agricultural practices in the production and processing of food and fibre and caring of crops and animals;
- Acquire values through having access and opportunity to succeed in lifelong education and training (RSA, pp.12-13).

Most students who are enrolled in agricultural programmes in Africa are not doing it by choice but because of their poor grades that prevent them from accessing the other options .It is also seen as a work of the poor and the elderly and not as something that can be profitable (Pieters, 2013).To this statement Sinnot (2011) agued the following reasons why students choose wrong careers:

- There is a lack of one-to-one session to tease out each individual situation;
- Students were making choices on their future before they had even sat the junior certificate including which subjects to take whether to the higher or ordinary level;
- No advice on how this will shape their future college and career choices;
- Students do not explore their future/options;
- Some parents channelise their children towards social status;

- Parents are well positioned to give their children advice because they are aware of the natural talents beyond academic ability.

To the above argument comes the role of vocational guidance and vocational training to the fore. With limited funds to invest in schools this guidance and training is neglected in many schools, vocational colleges and employment services. It is seen as unnecessary cost by the governments. Little research has been carried out on the effectiveness of vocational guidance, particularly to determine its cost effectiveness in placing young people in productive employment and the relevance of proper dissemination of information on training and job opportunities (Cummings, 2005). This results in:

- Jobs being filled by those with more access to resources;
- Low enrolments on pre-employment or vocational courses;
- Jobs not being filled at all;
- Jobs being filled by older workers.

Young people often accept employment opportunities because:

- A job was available to them regardless of their real capabilities or ambitions;
- A family or friend assisted them to find employment;
- Peer group perceptions of a particular vocation;
- They follow the work tradition of their father or mother;
- They have misinformation or lack of complete knowledge of what the occupation entails ;
- The job was convenient to their home (Cummings, 2005 p.49).

The youth focus in the employment debates is further warranted by the sheer size of youth cohorts in developing regions.

Particularly in Africa and Asia, today's youth population is the largest that the world has ever seen and the majority live in developing countries. These large youth cohorts enter every year in the labour market with higher expectations than former generations (Pieters, 2013).

A direct consequence of the historically large number of youth is that youth unemployment and non-productive employment bears high economic cost. Instead of contributing to society, unemployed or unproductively employed youth create direct costs, e. g. through public support programmes (IFC, 2011, cited in Pieters, 2013, p.8).

Unemployment impedes employability and increases poverty. It also increases the individual self-esteem. It reduces spending power in the economy; is a loss to taxation and other revenues; and as an individual's potential to invest in property and savings; it also increases the costs of social services (Cummings, 2005).

Youth unemployment challenges are related to growing inequality within the current youth cohorts (ILO, 2012b). Fierce competition for scarce jobs makes it harder to keep fighting labour market discrimination. This warrants a specific focus on the vulnerable groups of youth, for whom the labour market situation is most likely to deteriorate further if no targeted action is taken. Rural-urban migrants are the first ones losing out in urban labour markets and young women may be easily discouraged in countries where female labour force participation has been historically low.

Other vulnerable groups include low-educated youth (Pieters, 2013). Furthermore, agriculture is seen in a very narrow context and is equated with primary production as opposed to a profitable business, incorporating value-adding elements.

This culminating to in a critical fact because it means that many graduates within the agriculture sector are not interested in pursuing a career in the sector (Mayaki, 2013).

However, youth wages are sited as major course of unemployment in some countries, with employers proclaiming that they have little incentive to employ and pay young people wages that do not reflect their productivity. A decade ago young people were often able to gain work experience through part-time or jobs during school holidays (Cummings, p.43). Disadvantaged youth faces more problems obtaining employment. They are less likely to have good basic education and often suffer discrimination on the basis of social class, ethnic origin, gender or disability (Cummings, p.48).

In terms of enrolment in the nine agricultural colleges, the majority of students are Black and a higher proportion of these are male students. A Department of Agriculture (DoA) report (2006) showed that in 2005 a total of 1739 students were enrolled in the colleges of agriculture and out of these, 50% were Black, 43% were White, and less than 7% were made up by the other population groups (RSA, 2006).

Male enrolment constituted 72% of total students enrolled, while female students made up only 28% of total students. White males dominated by 51% (DoA, 2006 cited in RSA, 2006, p.19). Total of (638) students graduated at the colleges of agriculture with either a higher certificate or diploma. Of these 61% were African, 28% White and 11% were Coloured and the majority were male with females constituting 32% of total graduates (RSA, 2006). There is a need to determine what is it that limits access to education in colleges of agriculture and the gender and racial dimension is particularly worthy of investigation.

To this end, earlier studies carried out by (JET) Education Service (2011) showed that pathways drawn in secondary schools into Vocational Education and Training in South Africa are not well defined. TVET is not the first choice of school goers.

Many are failing it because they cannot cope with the demands of the curriculum and college programmes do not necessarily result in favourable employment outcomes because companies in the artisan training arena prefer higher achievers and do not trust quality college delivery (Gewe and Akoobhayi, 2013).

In order to meet the challenges of agricultural production facing African countries, improvement of a country's human resources capacity is essential for improving food security and rural development and thus reducing poverty.

Formal AET is needed for the production of skilled manpower to serve the agricultural sector through extension research and entrepreneurship and commerce (RSA, 2006). However, non-formal agricultural education is often provided by both public and private organisations. It is particularly needed for training of farmers, farm households and workers and for capacity building in a wide range of community based organisations and groups (RSA, p.17).

Agriculture has a negative career image among the youths. There are large numbers of unemployed agriculture graduates, while on the other hand there is a shortage of critical skills in agriculture. These challenges result in a need for the development of the AET strategy. There is also poor access of AET by emerging farmers and new entrance into the agriculture sector.

Other challenges include shortage of critical skills such as Veterinary Science, Agricultural Economics, Agricultural Engineering and Agricultural Development (RSA,

p.20). The youth unemployment rate increases poverty and leads to a high crime rate (social unrest) (Chokwe, 2016). This is seen in a serious light in this research.

1.2 Statement of the problem

While there is a need to adjust development and efforts and build the human assets and capabilities of the poor, Vocational Education and Training has been receiving less attention in South Africa. Policies and approaches to Technical and Vocational Education and Training (TVET) have undergone a measure of re-adjustment since the 1980's and 1990's. As a result, resources were put into primary education and public provision for technical and vocational and training was reduced (Hartl, 2009).

The quality of education in the agriculture sector is not where it should be. The demand for skilled people in the sector is growing, while the number of students enrolling in agriculture-related training continues to decrease. Africa's agricultural education is failing to produce a new wave of farmers (Ngcobo, 2017).

The limited enrolment capacity of training institutions excludes a wide portion of the young population from vocational education and training and limits their chances of finding employment in agriculture. Fragmented and scattered technical and vocational training delivery does not meet the needs of a fast growing agricultural and food sector (NEPAD, 2013). The mergers of the technikons with universities, the rationalisation of programmes and the attitude of 'take-over' by the universities left staff demoralised.

Technikons produced graduates who were on par with university graduates in the workplace but were often looked down upon as inferior graduates (Ramdass, 2007). There is a demand for job specific, technically oriented skills, that cut across

boundaries of disciplines which require basic skills, generic skills (including verbal, numerical, planning and communication skills) information technology skills and managerial and leadership skills, including the ability to work together in a diversified environment which is of utmost important in South Africa (Ramdass, p.118).

ATVET also lacks technically and professionally qualified human resources to respond to fast demand-driven approaches of the agricultural markets (NEPAD, 2013).

Value chains can create new types of jobs for the youth (Jones, 2014). Anticipation and matching labour market and skills need long term trends in job creation and labour supply to develop job specific skills which should be kept up to date.

From the literature, skills mismatch and job creation in agriculture have left a trail of low skills, partly educated jobless youth in South Africa (Cassim, 2014).

A deep analysis of the mismatch between AET and skills requirements reveals that African ATE curriculum is outmoded and irrelevant to adequately address the challenges facing modern agriculture. Furthermore, curricula are still focussed on farm production rather than encompassing all the segments of the agricultural value chains and entrepreneurship agribusiness, processing market (Mayaki, 2013).

Agriculture forms the basic food security of every country. It constitutes a large proportion of gross domestic product (GDP) in many developing countries and is the source of income and subsistence for many of the poorest and most vulnerable individuals and households (World Bank, 2007 cited in Collett and Gale, 2009, p.11).

To retain food security, skills are needed that will match the food production. Food is insecure in South Africa due to unemployment which is caused by the mismatch between type of workers supplied and those demanded by the economy (Karlie,

Oosthuisen, and van den Westhuisen, 2006). This is supported by (Rose, Nella, Steyn, Gericke, Winfred, Maurinder, Davis, and Parker, 2006) that agriculture is causing food insecurity despite graduates from, FET Colleges.

There is a need for a skills revolution to develop the agriculture and manufacturing sectors and to ensure they attract young people to address the problem of youth unemployment and lack of skills (Tshingilane, 2016). Entrepreneurs need to focus attention on skills training to tackle the challenge of unemployment in the country.

One way of doing this is to consider entrepreneurship as a career choice instead of looking to be absorbed into the already constricted job market.

The literature shows a gap between job creation skills needed, given the statistics of the unemployment rate in the agricultural sector, and the graduates from FET Colleges (Annual Report, 2012 2013).

The weakening links between FET Colleges and employers means that skills obtained from colleges may be somewhat irrelevant to the labour market (Cassim, 2014). Landman (2004) indicated that food insecurity is a serious challenge that still persists in South Africa after fifteen years of democracy.

This challenge in South Africa is predominantly around access to food and a means to produce it. Black Africans make the majority of poor food insecure households mostly found in rural areas (FAO, 2008). Lack of access to finance communication in infrastructure education, skills development facilities and agricultural inputs still prevents South Africa from making substantial progress (du Toit, Ramonyai, Lubbe and Ntushelo, 2011).

Skills development, for rural youth and peasants are not only about agriculture and related skills in rural development, but also about preparation and investment for off-farm working (Hartl, 2009). It is, 'therefore' important that Agricultural Technical Vocational Education and Training (ATVET) trains development agents (DA's) to work at Farmer Training Centres (FTC's) to enhance the knowledge-based skills of farmers and thereby provide an institutional framework for increasing the efficiency of agricultural extension services (Davis, Swanson, Amudavi, Mekonnen, Flohrs, Riese, Lamb, and Zerfu, 2010).

Post-graduate training should provide high-level scientists and researchers to pursue academic careers in agricultural and rural development.

Higher agricultural education institutions must develop research themes to include the interests of smallholder farmers and subsistence agricultural producers; their research impact also needs to be evaluated.

The involvement of participation of higher agricultural education institutions in agricultural education training and rural development activities will lead to the formulation of national development policies. South Africa like other countries will not develop without well-educated people with a strong agricultural base among all population groups to provide food security for improved nutrition and health of human resources for sustained agricultural production and economic development (RSA, 2006).

Higher agricultural education institutions should develop education programmes and curricula responding to the needs of socio-economic development by providing the knowledge and skills required to meet the needs of the people concerned. Curricula

and programmes should solve societal technical and socio-economic challenges (RSA, p.17).

In the context of agricultural workforce development there is still a lack of agreement on the types of occupations needed and how to prepare and train individuals for these roles (Jones, 2014). Brooks, Gautam, Zorya, and Goyal (2013) argued that education scholars that focus on vocational education as an alternative to general primary and secondary education actually weakens the positive impacts of vocational training by equipping students with the necessary background knowledge to implement the specific technical skills they gained in vocational training.

ATVET helps break the cycle of hunger, equips youth with skills for job creation and makes a sustainable impact on countries and economies.

This is in favour of the theory of this study that unemployed youth need to be provided with access to opportunities that will develop them into participating economic players (Afrika Tikkun, 2005).

To this argument, agriculture is also seen as a science which prepares students for additional higher education and training. Thus, learners develop entrepreneurial skills and can go to the local and national economy (RSA, 2006). It caters for careers such as farming, horticulture, veterinarian science, agricultural teaching, and environmental and natural resources management. An improved system would provide a greater range in type and level of courses, qualifications and graduates that the country needs (Ramdass, 2007).

It is for these reasons that this research sought to explore the ATVET programme and the promotion of job skills creation in agriculture in the Free State Further Education and Training (FET) College since 1994 after apartheid. The remainder of the study will

explore the key issues facing the current agricultural education system, not leaving out a focus on the changing role of ATVET contemporary approaches to agricultural and rural development, the educational level at which vocational workforce development programmes operate, and the range of skills and knowledge included in agricultural training. All these form bases underpinning this research.

1.2 Research question

The main research question guiding this study is:

How does agriculture vocational education programme promote job creation skills in the Free State Further Education and Training College?

1.2.1 Sub-questions

The sub-questions of this study are:

- What agriculture skills programme is offered at the FET College?
- How job creation skills are promoted at the FET College?
- What challenges faced the FET College in the rural area?
- What are the implications of the challenges face the FET College for the Agriculture Vocational Education curriculum?

1.3 Purpose of the study

The purpose of this study is to explore agriculture vocational education programme and the promotion of job creation skills in the rural Free State Further Education and Training College.

1.4 Objectives of the study

This study is guided by the following objectives:

- To explore agriculture vocational education programme and the promotion of job creation skills in a rural FET college.
- To find out how job creation skills are promoted at the FET College.
- To find out the challenges in the FET College
- To determine the implications for the Agriculture Vocational Education curriculum

1.5 Significance of the study

This study will have an impact on the economy of the rural areas and the attractiveness of Vocational Education (VE) which is attributed to the reform educational system structured to address the question of skills (Stumpf, and Niebuhr, 2012).

The study will also contribute towards better understanding of agriculture as a VE programme offered by FET Colleges to equip students with skills for job creation in rural areas of South Africa.

The study will also be of significance to the Department of Higher Education to formulate policies that will engender Agriculture Vocational Education programme in South Africa. Students will benefit from the study as the findings and recommendations might lead to better career choices and diffuse the misconceptions that VET is for low academic achievers. The findings and recommendations would lead to a review of the current education curriculum.

It is expected that this study would stimulate other researchers to carry out further studies that foster the need for VE in rural areas.

1.6 Rationale of the study

This is borne out of the picture that South Africa has attempted to bring a highly fragmented system into a unitary system through a series of radical reforms, particularly the governance of FET Colleges over the course of the past decade since 1994 (Wedekind, 2012).

The research findings by Stumpf and Niebuhr (2012) reveal that South Africa is in critical need of technical and artisan skills, aggravated by the apartheid legacy that stigmatised vocational education. Research also found that success follows where findings are shared between government and industries.

In some cases this is supplemented by local and community-based findings as an outcome of a constructive and well-functioning government industry partnership (Stumpf, and Niebuhr, 2012).

1.7 Delimitations/scope of the study

This study is limited to one rural-based FET College that offers agriculture as a vocational education programme that promotes job creation skills. This included first-year students at the institution as it was believed that they would enable a better gauging of the challenges they face as well as how agriculture as a vocational education would help them.

Final-year students are able to tell how agriculture as a vocational programme has benefited them in equipping them with skills for job creation at this FET College.

1.8 Definition of key terms

The following terms and concepts are defined as are used in this study:

Agriculture

It is the science, art, and business of cultivating the soil, producing crops and raising livestock and other human needs (Bajera, 2014). The aim of agriculture is to cause the land to produce more abundantly, and to protect it from deterioration and misuse.

Vocational Education and Training

Vocational education and training (VET), which changed over time to Technical Vocational Skills Development (TVSD), is often used to describe flexible skills, learning to learn, going beyond literacy and numeracy skills including more than life skills (King and Palmer, 2006 cited by Hatl, 2009, p.4). In addition, Osam, (2013) defined TVET as

a form of education that seeks to prepare persons for employment in recognised occupations.

Agriculture Technical Vocational Education and Training (ATVET)

Agriculture vocational education also known as technical vocational education and training (TVET) is an education process that involves, in addition to general education, the study of technologies and related sciences and the acquisition of practical skills, attitudes, understanding and knowledge about related occupations in agriculture (Jones, 2014).

Vocational education may be classified as teaching procedural knowledge. This can be contrasted with declarative knowledge used in education in a broader scientific field, which might concentrate on theory and abstract conceptual knowledge, characteristic of tertiary education (Phillips, 2012).

Vocational education can be at secondary, post-secondary or a, further education level and can interact with the apprenticeship system.

Vocational education is increasingly recognised in terms of recognition of prior learning and partial academic credits towards tertiary education (Phillips, 2012).

Vocationally oriented education

This education normally does not prepare learners for immediate productivity in a particular job but someone who is versed in the specific context and environment of a

particular occupation. This learner requires further training before he/she can enter the workplace (Stumpf, and Niebuhr, 2012).

Further Education and Training (FET)

FET Colleges are institutions, that are registered with the Department of Higher Education and Training (DHET) in order to provide vocational/occupational training in a specific field (College Support Learning SA).

Promote

In this context promote is understood to support someone with skills for doing a job.

Education

In this context education is understood to mean the transmission, acquisition, creation and adaptation of information, knowledge, skills, and values for sustainable development.

Skills

Skills are the proficiencies developed through training or experience (Lauby, 2013).

2.1 Theoretical framework

The study will make use of Youth Skills Development and Replacement Theory: (Afrika Tikkun, 2005). According to this theory skills and enterprise development through TVET is critical in preparing the youth for career and entrepreneurial opportunities that will help break the cycle of poverty. The aims are:

- Contributing to the decrease in the number of unemployed youth by providing quality gainful opportunities;
- Encouraging and creating a sense of personal accountability amongst youth;
- Facilitating skills acquisition towards employment and enterprise opportunities.
- Making a sustainable impact on communities and the economy;
- Ensuring certainty on investment for investors under the Broad-Based Black Economic Empowerment (BBBEE) codes.

This theory spells out what the youth of South Africa needs in the reduction of unemployment. It will help understand the hindrances of job creation skills in youth and how unemployment can be broken. It will also help in the prediction of the outcomes if job creation skills are not taken up as a matter of urgency and attended to.

Once the events and situations have been established, measures such as suggestions and solutions can be taken in an attempt to address the relevant situations as stated in four points of the five of this theory above namely:

- Contributing to the decrease in the number of unemployed by providing quality gainful opportunities;
- Facilitating skills acquisition towards employment and enterprise opportunities;
- Making a sustainable impact on communities and the economy;
- Ensuring certainty on investment for investors under the Broad-Based Black Economic Empowerment (BBBEE) codes.

Therefore, this theory was chosen since it underpins the research and convincingly will spell out positive results in the study. Agriculture's role towards raising the country's economy has been neglected. This will be rectified only if VET is able to operation fully

in agriculture. Job, skills creation is a concern for this study since the country's economy is dwindling.

If well interpreted and executed, the agricultural sector will be raised, the economy will grow, the importance of VET in agriculture will dawn, and jobs skills will be created and help reduce unemployment in youth.

This theory will also help to determine jobs that have already been created within the very rural agriculture FET College that will be visited during the research study.

2.2 Preliminary literature review

This section reviews literature that is pertinent to the questions raised in the introductory section of chapter one which included the background about VE and FET Colleges and South Africa, and provides historical perspective on FET colleges.

2.2.1 Background about VE and FET Colleges in South Africa

Technical and Vocational Education is, like all education, a product of the particular society within which it has developed and emerged (Wedekind, 2010). In South Africa the colonial and apartheid history has shaped not only the design of the system but also the social role and status of this form of education (Badroodien, (2014) (cited in Wedekind, 2010, p. 303). Having been a British colony, South Africa carries in its social make-up traces of the particular British class-based view of vocational education.

While the earliest forms of Technical Vocational Education and Training in South Africa were linked to the mission schools, the modern system emerged from the

establishment of technical colleges. Technical colleges emerged after the 1922 Apprenticeship Act and were designed to provide the theoretical training for apprentices attached to workplaces.

While the apartheid system meant that colleges were originally intended for the training of the skilled white working class, the growth and changes to the South African economy resulted in colleges over time, also being opened to African, Indian and Coloured South Africans, albeit not as apprentices (Badroodien, 2004, cited in Wedekind 2010, p.303). As Akoojee, Gewer and McGrath (2005) pointed out, the fact that Africans were only permitted to become apprentices in the 1980's and the colleges remained racially segregated meant that the apprenticeship system and consequently the link to industry had become weak (Wedekind, 2010).

At the time of the negotiated political settlement of the early 1990s the college landscape consisted of more than 150 technical colleges throughout the country with significantly diverse human and infrastructural capacity (Wedekind, p.303).

The historically White colleges operated on a semi-autonomous model of governance with a college council that provided linkages to the local industry while Black colleges and training centres were centrally controlled by their appropriate department along with the same schools (Wedekind, p. 303).

The management of these colleges had little autonomy and limited control over their budgets. The governance system before 1990 can be best classified as one of fragmented input control where competences were allocated according to policy areas and a vertical integration took place at best within these areas (Wedekind, p.303).

These reforms have affected all aspects of the system and the people in them. The result is that the institutions operate relatively independently of each other and have few incentives to coordinate their actions (Wedekind, 2010).

The entire education system is shaped by the Constitution of the Republic of South Africa, which declares education to be a national and provincial competence. Policy on education funding norms and all post-school education are deemed to be national competences, while the financing and administration of the schooling and FET College system are provincial competences (Wedekind, p.304).

It was only until recently that the budget for colleges was allocated at provincial level which has been a problem in so far as provincial governments have at times diverted funding away from the colleges to other sectors (Wedekind, 2010). Hence NSFAS could not afford funds to all students at tertiary institutions.

The FET Act of (1998) provides the framework for the FET system for the establishment, governance and funding of public FET Colleges, all aimed at redressing past discrimination and enabling access to the disabled and disadvantaged (FET Act, 1998). This integrated approach was not practically realised. Under apartheid VE colleges were originally intended for the training of skilled White working class learners (Wedekind, 2010).

The National Qualifications Framework (NQF), which brings together the different sectors of education, was structured in a way that closely related FET and school-level education, with the last years at school seen as further education. Driven primarily from a training perspective, the process of the creation of NQF had its origins in the labour movement. The NQF sought to map pathways of learning onto one framework from the

lowest levels to the PhD, across the academic, occupational and vocational divides (Wedekind, p.304).

From the governance perspective the creation of the NQF has ironically led to greater fragmentation rather than integration. One of the features introduced consisted of the three bands of the education system: general education and training (GET); further education and training (FET) and higher education (HE) (Wedekind, p.304).

In the run-up to the first democratic election it was planned that there would be a single Ministry of Education and Training. However, this was finally abandoned. Instead there was to continue to be a split in functions between the newly named Department of Education and Department of Labour (DoL). To make the situation even more complex on the education side, there was also a division of responsibilities between the national department and the nine new provincial departments (Akoojee, Gewer, and McGrath, 2005).

Competency for the education elements of the VET sector was to be shared between the two levels (Akoojee, Gewer and McGrath, 2005). The qualification framework was split into three linked frameworks each with its own quality council. Umalusi is the higher Education Quality Council and the Quality Council for Traders and Occupation (Allais, 2012).

Private and community based providers with organisations that wanted to do youth development work were forced to deal with the framework. FET had the worst of it because they are not working within the Department of Education system and its qualifications and examinations but in as far as they offer learnerships and skills programmes they were obliged to deal with the Sector Education and Training

Authorities (SETAs) and the prescribed accreditation and decentralised assessment process.

The end result was the elaborate system of qualification departments and quality assurance based on the development of an outcome based qualification (Allais, 2012). The FET College sector has also seen a rapid growth, though this was concentrated in 1990s. In 1991 76 435 students were enrolled in the Colleges.

By 2000 this had increased to 350 465. Whereas two-thirds of students were white in 1991, three-quarters were Africans by 2000. There was also an explosion in private FET provision with a total headcount estimated at 706 884 by 2000 (Akoojee, 2003 cited in Akoojee, Gewer and McGrath, 2005, p.106).

Theoretical contestations on the role of TVET ranges from the productivity or economic approach, which is based on neo-liberal assumptions that training leads to productivity which in turn leads to jobs for growth. The other assumption is that skills lead to employability which in turn leads to skills for jobs.

On the other hand, human development theory asserts that TVET provisioning should be aimed at sustainable development or livelihoods (Rasool and Mahembe, 2014).

Recent theories like the capabilities approach sees the TVET as a means for supporting the development of a range of capabilities that are conceived as opportunities to develop functioning that individuals, their communities and society at large have reason to value (Rasool and Mahembe, 2014). On the back of these theoretical contestations the literature review was undertaken to find out how other developmental states have used the theoretical underpinning to develop their TVET policies.

Countries with the well-functioning TVET systems and similar middle-income countries were reviewed, namely Korea, Singapore, Germany and India. The analysis revealed that the success of the TVET system is based on the involvement of the government in ensuring that the purpose of the TVET systems is reformed in line with the phases of the country's economic development (Rasool and Mahembe, 2014). It can be concluded that success with vocational education is built on the understanding that each stage of development requires a TVET approach that prepares the country for the next stage of its developmental path.

The current policy pronouncement by the government revealed a disjuncture between the Green Paper (2012) which asserts that TVET colleges should not be all things to all possible learners' and other government policy documents which would want the purpose of TVET sector to be broadened. Africa had more than 200 mostly small and under-resourced colleges which provided a wide range of qualifications from technical, vocational and trade qualifications to higher education but produced too few graduates (Ramdass, 2007).

It is clear that the policy related to governance has drawn heavily from other systems and that policy makers have actively sought to emulate practices in other parts of the world.

While the World Bank and UNESCO have played their part, country funders have also been central to the development of the system in South Africa.

The most notable concept of an NQF was borrowed from similar systems in New Zealand, Australia and Scotland while the Further Education Band draws on the notion of further education as understood in England (Allais, et al.2009, cited in Wedekind,

2010, p.308).The current developments are that the new ministries have carved up the FET Band being an area of shared responsibility.

The FET Colleges and their programmes are the responsibility of the Minister of Higher Education and Training. Perhaps the tensions between the former Departments of Education and Labour have largely been resolved by the Ministry of Higher Education and Training also having responsibility for the National Skills Development Strategy and Functions associated with Skills Development Act (Wedekind, 2010).

Career guidance is undertaken in many first world countries. It helps alleviate much of the hardships and unnecessary expenses. It could play a role in reducing unemployment rate. There is inadequate provision for vocational guidance or assessment of individual learners in South Africa. This weakness results in high unnecessary costs for the country and South African Business as well as social discontent and hardships (Kartus, 2013).

The first of the costs are incurred by companies giving bursaries to these students. Company training tends to have a short term effect. In the end unhappy employees leave at their own wish or need to be dismissed (Kartus, 2013). In other case, the cost of the business is substantial recruitment costs, training costs, hidden costs resulting from the poor performance and the lack of continuity within the business.

This needed to be done in South Africa because:

- Provision for vocational education or assessment of individual learners is inadequate. This results in high, unnecessary costs for the country and South Africans Business as well as social discontent and hardships;

- Young people leave school with vague knowledge of employment opportunities and with little insight as to the most appropriate career direction for their abilities, interests, and personalities;
- School leavers receive no training at all beyond school and become unemployed;
- These school leavers believe the only chance of future employment is with current unemployment is gaining some qualification, undertake tertiary education irrespective of their suitability for the subjects chosen;
- Without career guidance many matriculants cannot make informed choices when it comes to their future paths;
- Proper career guidance would have assisted many students with early applications at universities and further education and training colleges, and with the selection of career paths at an early stage with more career options other than enrolling at higher education institutions;
- Proper guidance would have made the situation manageable for learners (Kartus, 2013).

The literature showed that a large proportion of employees feel stuck in their careers. This leads to low morale, disinterest and demotivation, translating into poor performance and bad service levels.

2.2.2 Historical perspective of FET Colleges

Technical colleges emerged after the (1922 Apprenticeship Act) came into being and were designed to provide theoretical training to apprentices in workplaces (Wedekind,

2010). Prior to the establishment of the democratic government in 1994, AET was patterned after the provision of the Bantu Education Act No.47 of 1953. This legislation enforced a separate curriculum for different racial groups.

Consequently, most of the schools under Bantu Education taught agriculture as a subject combined with other non-scientific ones, such as history, biology, geography and Biblical studies. There was no emphasis on the significance of mathematics and science in teaching agricultural science (DoA, 2005 cited in RSA, p.8).

Historically formal TVET has been closely tied to the process of industrialisation and economic development, and therefore TVET policies have often been dominated by economic and equity perspectives (UNESCO, 2012).

The evolution of TVET systems and transformation over the years has been based on the perceived role of TVET in relation to economic and human development (Tikly, 2013).

At the time of negotiated political settlement of the early 1990's the colleges' landscape comprised more than 150 technical colleges in South Africa.

White colleges operated within the semi-independent model of governance while Black colleges and training centres were controlled by their appropriate departments along the same line as schools, thus having limited control over their budgets (Wedekind, 2010).

Financing and administration of the FET Colleges system were provincially competence (RSA, 1996 cited in Wedekind, 2010, p.305) and the fact that the budget for colleges was, until recently, located at provincial level has been a problem in so far as provincial governments at times diverted funding away from the colleges to other

sectors. One recurring tension that affected FET Colleges was the fact that the area of skills development was contested between the Ministries of Education and Labour.

The Department of Labour under the Skills Development Act of 1998 was custodian of the human resource development strategy and thus had a keen interest in the FET Colleges, the latter being vehicles for the implementation of its strategies (Wedekind, 2010). However, the Department of Education had a different version for the Colleges, namely that the Colleges should provide a general vocational programme to 15-19 year olds.

The governance of the new South African educational system included a principle of independent quality assurance. Two statutory bodies were established to quality assure the qualifications of the NQF. The Council for Higher Education established a Higher Education Quality Council (HEQC) to oversee programmes in the higher education band while the General and Further Education and Training Quality Assurance Act (Act 58 of 2001) established Umalusi, the quality assurance body for GET and FET (Wedekind, p.305).

However, the SETAs also had quality assurance powers associated with skills programmes and thus there were overlapping mandates. The HEQC declared that it had no interest or capacity in quality assuring short courses or skills courses and had no interest in vocational programmes at level 5 offered by FET Colleges.

For Colleges this system was confusing and incomplete as they had to meet a range of requirements for different quality assurance bodies or not have any requirement at all for some of the programmes (Wedekind, 2010).

The FET Act of 1998 provided the framework for the system in South Africa. It provides for establishment, governance and funding of public FET Colleges and the registration

of private FET Colleges. At this stage the policy vision was for an integrated FET sector and so the Act dealt with both the last three grades of schooling and the college sector. This integrated policy was not realized in practice in part because of differences between the mass-based schooling system, with its high-stakes public exit examination, and the small college sector with its specialised technical training requirements which made integration more difficult than imagined (Wedekind, 2010).

In the light of skills shortages in South Africa, implementation of skills development programmes has the potential to either advance or retard development efforts. The issue of skills development is related to the history of the past injustices and is a means to respond to the current globalized economic order (Akoojee, 2010).

Many of South Africa's agricultural and rural development problems have been related to a lack of well-trained human resources, weak institutions and misguided notions. It is believed that most of the challenges emanated from the past experience under the colonial and apartheid rule which had a negative impact on AET.

Thus agricultural human resources development remains a critical factor to meet the country's challenge of agricultural development and food security (RSA, 2006). Generally, the school AET was poorly controlled, lacked coherence and coordination, and had unqualified teachers in agricultural sciences (Didiza, 2005 cited in RSA, 2006, p.9). As a result of the negative impact of the Bantu Education Act, AET became inaccessible to many prospective learners, particularly those from Black communities under the colonial rule. In developing countries like South Africa, Education and development were concentrated on men in the institution building process.

Much of the ideology of male supremacy was passed on intact from the western men to their local counterparts who were the educated elite. Western-style ownership of land rather than customary and communal rights was introduced hence colonial and western influence made sharper divisions between sexes through education, division in crop and animal production varied by gender (RSA, p.9).

Specific crops were designated 'women's' crops where as others were 'men's' and were likely to be grain, tree, and non-food raised for market. Women's crops were typically vegetables roots and food raised for subsistence and local consumption (RSA, p.9). To date most women are still engaged in these types of business for their family consumption.

2.3 Progress by FET Colleges in rural areas

In an effort to improve the rural economy, 1740,555 hectares of land were acquired, redistributed and restituted from 2009 to September 2013 (Nikelwa, 2014). To sustain production on productive land 700 000 smallholder producers were supported through various initiatives including access to finance and monitoring. Cooperatives have been linked to the Department of Social Development's Food for All programmes (Nikelwa, p.1).

About 12 trainings and vocational education colleges will be built to expand the technical skills mix in the country. Funding support through bursaries received a boost in 2012 through the National Student Financial Aid Scheme which supports poor students at universities and colleges (Govt, 2013).

A cross cutting comprehensive rural development programme has been formed in Mpumalanga, through sector developments and clusters through the Medium Term Strategy Framework (MTSF, 2009-2004), that will eventually see rural settlements developed by the year 2014 through the government's programme of action, CRDP encompasses agrarian transformation, rural development and land reform (Nation Address, 2015 by State President Jacob Zuma).

According to the Provinces Progress Report (2006) nine FET Colleges are to be built in the rural areas of KwaZulu-Natal which are meant to match those in urban areas. Unfortunately, these came with different challenges in areas of human resources, infrastructure, administration and management. Thanda is a non-profit organisation that provides education and agriculture, training children in rural KwaZulu-Natal through after school programmes (Thanda, 2015).

The FET College studied is situated in the Northern Region of KwaZulu-Natal and covers a vast area served by 11 municipalities.

The campuses of this College are spread over a wide geographical area. This particular FET College is historically a state-funded merged institution of former technical colleges and skills centres. The merger was intended to deliver a better service by avoiding duplication of programmes at the colleges.

Data gained from the interview revealed lack of infrastructure, poverty, poorly resourced campuses, high turnover of staff, limited course offerings, lack of policies and lack of financial assistance (Van Wyk, 2010).

3.0 Methodology

Williams (2011) defines methodology as giving a clear-cut idea of what method or process the researcher is going to carry out in his research to achieve objectives. This includes the research paradigm, research approach, research design; population, sample, and sampling techniques; data collection instruments; issues of reliability/untrustworthiness; data analysis; ethical considerations, and limitations of the study.

3.1 Research paradigm: Interpretivism

A paradigm is a model or pattern containing a set of legitimate assumptions and a design for collecting and interpreting data (De Vos, Strydom, Fouche' and Delport, 2012). De Vos et al. (2012) describe interpretivism as a major approach in data collection. Interpretivism is based on a life world ontology that argues all observation of the social world is not and cannot pursue of a detached objective truth (Leith, Hill and Harrison 2010. cited in Ponelis 2006 p. 4). Epistemologically, the view point of the interpretivist paradigm is that our knowledge of reality is a social construction by human actors (Mackenzie and Sally, 2006).

The interpretive research paradigm is characterized by a need to understand the world as it from a subjective point of view and seeks an explanation with the frame of reference of the participants rather than the objective observer of the action. At an axiological level, the interpretivist paradigm is more concerned with relevance than rigor (Ponelis, 2006).

The position of interpretivism in relation to ontology and epistemology is that interpretivists believe the reality is multiple and relative. These multiple realities depend on other systems for meanings. The knowledge acquired in this discipline is socially constructed rather than objectively determined (Prabash, 2012).

Ontology is the nature of reality and the epistemology can be defined as the relationship between the researcher and the reality (Hudson and Ozanne, 1998, and Carson et.al., 2001, cited by Prabash, 2012.p.1).The interpretivists avoid rigid structural frameworks such as in positivist research and adopt a more personal and flexible structure which are receptive to capturing meanings in human interaction (Black, 2006. cited in Prabash,p.1).They believe the researcher and his informants are interdependent and mutually interactive .

The interpretivist researcher enters the field with some sort of prior insight of the research context but assumes that this is insufficient in developing a fixed research design due to complex, multiple and unpredictable nature of what is perceived as reality. The researcher remains open to new knowledge throughout the study and lets it develop with the help of informants.

The use of such an emergent and collaborative approach is consistent with the interpretivist belief that humans have the ability to adapt, and that no one can gain prior knowledge of time and context bound social realities (Prabash, 2012)

The interpretivist approach sees people and their interpretations, perceptions, meanings and understandings as primary data sources.

Biographical life, history and humanist approaches see people as social, active social agents. Conversation analysis and discourse analysis are aimed to study people's life methods for producing social interaction (Mason, 2009).

Interpretivism is also defined by (Elster, 2007, cited in Chowdhury, 2014, p.8) as the approach that emphasises the meaningful nature of people's character and participation in both social and cultural life.

Accordingly, interpretive researchers, assume that access to reality is only through social constructions such as language, consciousness, shared meanings and instruments (Myers, 2008). The aim of interpretivism is to understand the subjective meanings of persons in studied domains in the interpretive paradigm (Gouldkuhl, 2008).

Interpretivism involves researchers to interpret elements of the study, thus interpretivism integrates human interest into a study (Myers, 2008). The criteria used to evaluate the findings generated by the research with the interpretive paradigm differs from those applied within positivist paradigm (Lincoln and Guba, 1985 cited in Ponelis 2006, p.5). While the volume of the latter is judged by the degree to which results can be generalized to wider population, the value of the understanding that emerges from an interpretive study is determined by the degree to which it fits and works with the respective of participants (Ponelis, 2006).

This study focuses on the interpretive approach. The researcher provides insights into the behaviour displayed and the meanings and interpretations that subjects give to their life world (De Vos, et al., 2012). Therefore, the goal of this study as to gain insight into the exploration way Agriculture VE programme and the promotion of job creation skills at a Free State FET College.

3.2 Research approach: Qualitative approach

Qualitative research as defined by Makhanya (2006 and De Vos, et al., 2012) is an approach design of all decisions made by the researcher in planning the study. Qualitative research is used when an issue under study needs to be comprehended on a complex and detailed level (Tavallaei, and Talib, 2010).

Qualitative research is important in the behavioural sciences where the aim is to discover the underlying motives of human behaviour. Through such research we can analyse the various factors which motivate people to behave in particular manner or which make people like or dislike a particular thing (Ketchen, and Bergh, 2006). The researcher thus tries to minimise the power relationships between himself and participants by empowering them to share their stories and have their silent voices heard by a concerned expert.

According to Clissett (2008) qualitative research covers a wide range of approaches for the exploration of human experience, perception, motivations and behaviours. It is concerned with the collection and analysis of words whether in the form of speech or writing. The qualitative approach in this study means what others do and say, or to get grasp, hear, catch and comprehend what something means and provide the opportunity to the researcher to observe, record and interpret non-verbal communication (Henderson, 2015).

3.3 Research design: Case study

A case study focuses attention on a single instance of some social phenomenon, such as a village, family, or a gang. The purpose of the study describes something while an in-depth study may yield explanatory insights (Babbie, 2010).

It is suitable for learning more about a little known or poorly understood situation. Researchers collect extensive data on the individual's programme or investigative focused events. This includes observation, interviews, documents, (newspapers, articles, post records and previous test scores), photographs, videotapes, and audio tapes (Leady, and Ormord, 2010). Case studies are divided into:

- explanatory in which case information is collected before developing questions and hypotheses;
- descriptive which includes observing the subjects and using information to compare pre-existing theories;
- intrinsic, in which case the researcher has a personal interest;
- collective, in which case a study of a group of individuals is undertaken;
- instrumental, in which case individuals or group allow the researcher to learn more than is initially obvious to observers; and
- each unit is studied as part of a collection. This term is sometimes referred to as multi-site study (Mills, Durepos, and Wiebe, 2010).

In this study the researcher gained a better understanding about agriculture, vocational education programmes and the promotion of job skills creation at the Free State FET College as it was unfolded by individuals in the case study.

3.4 Population, sample and sampling techniques.

The population of the study, the sample and sampling strategies as well as data collection procedures/instruments are described in this section. Trustworthiness, validity, reliability and ethical considerations are presented.

3.4.1 Population

Population is a large pool from which our sampling elements are drawn and to which we want to generalise our findings. It encompasses all the elements that make up our unit of analysis (Babbie and Mouton, 2007). Babbie (2010a) defines population as a group of people about whom we want to draw conclusions and also a theoretically specified aggregation of study of elements. Romm (2006) maintains that population refers to the group of people to whom the researcher wishes the results to apply.

The population of this study comprised one rural-based FET College in the Free State Province which offers an agricultural vocational education programme that promotes job creation skills.

All students at the College who take agriculture as a vocational education programme form the population of this study. Facilitators, peer facilitators, and coordinators of this programme also form part of the population of the study.

3.4.2 Sample procedure

A sample is a smaller group selected from a population in such a way that it maximises the likelihood that the sample represents the population as much as possible

(Salkind,2012) The significance thereof is to measure how much risk we are willing to take when reaching a conclusion about the relationship between variables.

Sampling is the process of selecting observations or any procedure for selecting units of observation (Babbie, 2013b). Engaging in sampling indicates selecting individual units from a larger population to measure. Types of sampling are:

- probability sampling theory- which is based on random selection from the sampling;
- non-probability sampling-in which case there is no list for random sampling;
- purposive sampling/judgement- in which case the selection of subjects is on the basis of knowledge of population, its elements and the purpose of the study;
- Snowball sampling-which is appropriate when members of a special population are difficult to locate, such as homeless individuals, migrant workers and undocumented immigrants.

Here the data is collected from the few members of the targeted population(Babbie, 2013b).The researcher can ask those individuals to provide information needed to locate other members of that population whom they happen to know; and

- Quota sampling which addresses the issue of representativeness, it begins with the table of matrix describing the characteristics of the target population.

In qualitative research sampling is always purposeful (Babbie, 2010a).Participants are purposefully selected to provide the most information-rich data possible. It is also criterion-based; one always uses specific criterion (people have experienced a particular phenomenon, age, demographics) based on questions guiding the research (Morrow, 2005).

De Vos (2005) further mentioned probability and non-probability as sampling procedures. In this study seven participants would be randomly selected.

Purposeful sampling and the first two and the last combinations are used to reduce an unnecessarily large potential sample to one that is more manageable in a way that will promote fairness (Morrow, 2005).

In this study, three final year students, three facilitators and one programme coordinator will constitute the sample. This will enable the researcher to select participants who bear all the characteristics required in this study, namely agriculture as a vocational education programme. Bias will be avoided through appeal to coordinators to identify experienced facilitators who have the most information on the programmes.

3.4.3 Data collection procedures

When designing research, the goal is to optimise data collection procedures and reduce total research error within the available time budget.

An optimal data collection method is defined as the best method (De Leeuw, 2005). Permission from the District Manager was sought to visit the rural FET College management near Qwa-Qwa in the Free State Province. The dates to meet with the rural based FET College management were set with the management.

3.4.3.1 *Face-to-face (in-depth) interviews*

An interview is a conversation between two or more people where questions are asked by the interviewer to elicit facts or statements from the interviewee.

It provides the opportunity to know how people think and feel. It is the most used source of data constructionist research and techniques and principles. (Blanche, Kevin and Desmond, 2006). Marshall (2006) defines interviewing as a conversation with purpose. Therefore, interviewing involves limitations, personal interaction and cooperation.

Face-to-face (FtF) interviews also called in-person interviews (Lavrakas, 2008), constitute a personal survey method that is used when a specific target population is involved). The aim thereof is to explore the responses of the people to gather more and deeper information. Advantages of (FtF) interview are that:

- there is always a high response rate;
- tolerable longer interviews;
- better observation;
- presence of the interviewer which makes it easier for the respondents to either clarify answers or ask for clarifications for some of the items on the questions.

In qualitative interviews (Singh, 2008):

- Interviews are completed by the interviewer based on what the interviewee says;
- Interviews are a more personal form of research than questionnaires;
- In the personal interview the interviewer works directly with the interviewee;
- The interviewer has the opportunity to probe or ask follow-up questions;
- Interviews are easier for the interviewee if what is sought are opinions or impressions;
- The interviewer is considered the part of the measurement instrument and interviewer has to be well trained.

The FtF interview is good to minimise non-response and to maximise the quality of data collected. It also solicits information that can be considered to be sensitive (Lavrakas, 2008). Face-to-face interviews were conducted with key informants, namely final year students, coordinators and facilitators regarding academic challenges of the agricultural programme in the college. Face-to-face interviews are preferred because they offer a platform for a conversation with the intention that the researcher explores the participants' views, ideas, beliefs and attitudes towards agriculture: VE programme and the promotion of job creation skills at Free State FET College.

This enables the researcher to perceive the world through the eyes of the participants. Information that was solicited included strategies adopted by facilitators and coordinators including training to improve agriculture: VE programme and the promotion of job creation skills in a Free State FET College.

3.4.3.2 Focus group discussions

Eliot (2005) defined a focus group as a small group of six to ten people led in an open discussion by a skilled moderator. It is also an in-depth interview. A group of interacting individuals, having some common interest or characteristics, is used to get information about a specific or focused issue (Marczak and Sewell, 2016). The group needs to be large enough to generate rich discussion but not so large that some participants are left out. A focus group can reveal a wealth of detailed information and deep insight (Eliot, 2005, p.1).

The interviewer creates a supportive environment, asking focused questions to encourage discussion and expression of different opinions and points of view. The interviews may be conducted several times with different individuals so that the

researcher can identify trends in the perceptions and opinions expressed, which are revealed through careful, systematic analysis (Marshall, 2006).

This method assumes that an individual's attitudes and beliefs do not form in a vacuum: People often need to listen to others' opinions and understandings to form their own. The questions in a focus-group setting are deceptively simple: the trick is to promote the participants' expression of their views through the creation of a supportive environment (Marshall, p.114).

The advantages of focus-group interviews are that this method is socially oriented, studying participants in an atmosphere more natural than artificial experimental circumstances and more relaxed than a one-to-one interview. When combined with participant observation, focus groups are especially useful for gaining access, focusing site selection and sampling and even for checking tentative conclusions (Marshall, p.114).

The format allows the facilitator the flexibility to explore unanticipated issues as they arise in the discussion (Marshall, 2006). The results have high face validity. The cost of focus groups is relatively low: they provide quick results and they can increase the sample size of qualitative studies, by permitting more people to be interviewed at one time.

The disadvantage of focus groups is:

- the issue of power dynamics in focus group setting; which needs exquisite awareness of the researcher since the interviewer one;
- time can be lost while dead-end or irrelevant issues are discussed;

- the data are difficult to analyse because context is essential to understanding the participants' comments;
- the methods requires the use of special room arrangements ; the group can vary a great deal and can be hard to assemble;
- and the logistical problem may arise from the need to manage a conversation while getting good quality data does not have much control over the group than an individual (Marshall,115).

The goal of the group is to elicit a discussion that allows the researcher to see the world from the participants' perspective. It can be people in a private, comfortable environment to engage them in a guided discussion on the topic. Subjects are selected on the basis of relevance to the topic under study (Babbie, 2013b).

To this end, focus groups give information about how agriculture as a vocational education programme promotes job creation skills at a Free State FET College. It provides great insight into developing strategies for outreach.

3.4.3.3 Data analysis

Bowen (2005) defined document analysis as a systematic procedure or evaluation of documents. Data was examined and interpreted in order to elicit meanings, gain understanding and develop empirical knowledge (Corbin and Strauss, 2008 cited by Bowen, 2005). Examples of the documents included advertisements, agendas, attendance registers, minutes of the meetings manuals, background papers, books, brochures, diaries, and journals, event programmes (printed outlines) letters and memoranda , maps charts and newspapers.

Access to the documents and records were negotiated and left to the management of the institution guiding the research. These documents provided an insight into the history, literature on the further development of agriculture vocational education programme, statistics of students accessing these programmes and the management of these programmes.

3.4.4 Trustworthiness

Trustworthiness can be thought of as ways in which qualitative researchers ensure that transferability, credibility and dependability and conformability are evident in their research (Lisa and Saumure, 2008).

In this study, issues of trustworthiness were obtained when findings were established as closely as possible and reflected the meanings as described by the participants (Lietz, 2006). Trustworthiness was obtained with multiple perspectives in data collection and the sample of respondents. The questionnaire also rendered the instrument, as well as the data collected, reliable and valid.

This included member checking as this allowed the researcher to take information collected from the respondents back to them for verification and confirmation.

This was done by the researcher by taking the transcript of the content interviews to the respondents for confirmation (Langer and Furman, 2006).

3.4.5 Ethical considerations

Ethics refers to discussions around what is considered acceptable behaviour in the practice of social research. This broadly refers to the way in which entry is obtained and how the researcher chooses to engage in a study so that the reputation of those

studied is not damaged. (Romm, 2006). To be ethical is to conform to accepted standards of conduct in a professional practice (Babbie and Mouton, 2007).

These standards enable the researcher to know and be aware of general agreements among researchers about what is proper and improper in the conduct of scientific inquiry.

It is generally agreed that it is unethical for researchers to harm anyone in the course of research, especially if it is without the person's knowledge and permission. This includes deceiving the respondent about the true purpose of the study.

Respondents may also be injured by being studied without their knowledge or by violation of a promise of confidentiality. Participants should not be exposed to undue physical or psychological harm. They should not be subjected to unusual stress, embarrassment or loss of self-esteem (Babbie, Mouton, Vorster and Boshoff, 2007). Researchers can also act unethically when analysing data, e.g. by revealing only parts of the facts, presenting facts out of context, falsifying findings or offering misleading presentations (De Vos, Strydom, Fouche' and Delport, 2005).

Ethical considerations were conformed in this study by:

- informing respondents of the possible negative effects and securing their permission (informed consent);
- using samples rather than complete populations so that fewer persons are affected;
- maintaining their privacy through publication of aggregate data only;
- applying only a low level of the cause or for a short period so that the effects, though negative are very mild; and

- finding a condition in which the negative effects already exist so that the researcher is not responsible for producing them.

Ethical considerations in this study focussed on free participation, avoidance of harm, anonymity, confidentiality, informed consents and access.

In this section, the background in agriculture vocational education and the promotion of job skills creation in the OFS FET College has been perceived from global and international, Sub-Saharan Africa and Africa, and South Africa point of view. South Africa agriculture was investigated in-depth as it can provide job creation skills which can help reduce youth unemployment. The problem statement, and research questions and the objectives guiding the research were discussed to provide a framework to the study. Reasons for undertaking the study were forth-given. Chapter two presented literature review on Agriculture Vocational Education programme and the promotion of job creation skills in the TVET College and the theoretical framework

CHAPTER TWO

THEORETICAL FRAMEWORK AND LITERATURE REVIEW

2.0 Introduction

This chapter presents the conceptual backdrop of AVET/TVET programme with regard to the promotion of job creation skills in rural areas. It is guided by the main question of the study which enforces the probability of Youth Skills Development and Replacement Theory in this study.

The rural economy plays an important role with regard to employment, since the economic growth in urban centres is too slow to generate sufficient employment to absorb the migrated labour force particularly in transition countries. The contribution on of agriculture is obvious in rural areas where it is one of the major economic activities, although small semi-urban centres play a role in the economic growth of rural areas (FAO, 2006) Therefore employment in rural areas may depend on heavily on agriculture and related sectors in areas where tourism and the incentive to invest in industry are very low.

Vocational education is an avenue to reduce unemployment, poverty and other related social economic problems in the society. It provides trainees with knowledge, skills, and motivation to engage in any venture like small medium scale businesses (Agbongiasede, 2012).

Young men and women have been in the spotlight ever since the economic crisis revealed its hefty impact on youth employment. Despite the response to the global

crisis, the global youth unemployment rate does not seem to give in. Today it is at 12.6% above the rate reported in 2007 (ILO, 2005).

Policy makers, social partners and global youth development community continue seeking answers to the youth employment challenge looking for clues and proofs in their search for what works. There are about 1.2 billion youth and nearly 75 million of them are looking for job. Such a sizeable cohort is an opportunity for growth but can become a source of instability if youth unemployment and discouragement are not addressed (ILO, 2005).

South Africa forms part of African countries that committed to enhancement of Comprehensive Africa Agriculture Development Programme (CAADP) of Africa Union summit (AU) held in Johannesburg in June 2015 (Mayaki, 2012). It is therefore like many African countries grappling with ways and means to reduce poverty and unemployment in agriculture. It also lacks resources to enhance agriculture and to attract youth to the agricultural sector. Agriculture remains the fundamental to poverty reduction and economic growth in the 21st century (World Bank, 2008) and essential industry for many nations (Naamwintome and Bagson, 2013).

In the Western world, the share of agriculture in total Gross Domestic Product (GDP) is less than 40% but nearly 50% of the worldwide agriculture trade is conducted by these developed countries. This is because European Union's (UN's) low dependence on agriculture but with a large budget to subsidise agricultural products (Bertow and Schulthesis, 2007) and the world agriculture's share of contribution to

employment is 35% compared to 86,6% in Africa (Worbst, 2011 cited in Naamwintome and Bagson, 2013 p.61). Young people are critical to the future of this sector. Agree in

the U.S. believes food and ag topics need to be introduced to students earlier and maintained with rigor throughout their education.

The education system should provide young people with skill, knowledge, technology and background to be career and college ready (Emmy, 2015). Promoting innovative workforce development programmes, eliminating financial and credit barriers existing for beginning farmers and rural entrepreneurs, and providing resources to support relevant programmes in 2-and 4 year institutions will create a strong foundation for continued economic growth in this sector (Emmy, 2015).

2.1 Theoretical framework

Theoretical framework is an empirical theories of social or psychological process which exist at a variety of different levels and apply to the understanding of phenomena (Anfara and Norma, 2006). Theoretical framework is used to limit the scope of the relevant data by focusing on specific variables and defining the specific viewpoints that the researcher will take in analysing and interpreting the data to be gathered (Swanson 2013).

The theory of this study is **Youth Skills Development and Replacement** (AfrikaTikkun, 2005). The theory asserted that skills and enterprise development were crucial in preparing the youth for career and entrepreneurial opportunities that will help break the cycle of poverty. The outcome was to provide unemployed youth with access opportunities that would develop them into participating economic players by:

- Encouraging and create a sense of personal accountability amongst the youth;
- Facilitating skills acquisition towards employment and enterprise opportunities;

- Making sustainable impact on countries and economy and to ensure return on investment for investors under Broad Based Black Economic Empowerment (BBBEE) codes.

2.2 Literature Review

2.2.1 Agriculture and rural development

Rural and agricultural development and equitable distribution of the benefits of economic growth are crucial for the global reduction of poverty and hunger. The literature reveals that the impact of economic growth on reducing hunger and poverty depends on the nature of growth in rural areas and in the agricultural sector had greater impact on reducing poverty (FAO, 2006).

Agricultural and rural development increases agricultural production in order to provide sufficient food for expanding population in food deficient regions in developing countries. The rural economy plays a role with regard to employment since economic growth in urban centres is slow to generate sufficient employment to absorb the integrated labour force. Agriculture also preserves natural resources.

Africa has abundant land and labour which, with sound policies could be translated into increased production, incomes and food security. This has not materialised because of lack of consistent policies and/or effective implementation strategies (Francis and David, 2012). The bedrock of agriculture and agricultural development in developing countries of Sub-Saharan Africa is rural development without which all efforts at agricultural development will be futile.

Agriculture is the main source of income for 90% of rural population in Africa (Francis and David, 2012). It employs nearly one-half of the labour force in developing

countries. A high share of rural communities and the rural poor are directly or indirectly dependent on agriculture through farming, food processing, fishing, forestry and trade (Muhammed, 2007).

However, agriculture and rural development in Africa has been neglected due to poor commitment and capacities in partner countries, international interest in rural issues and poor commitment and weak past performance in the bank (Muhammed, 2007).

Rural development is a strategic priority of the 2009-2014 administration and finds expression in Outcome 7 as well as the Government of South Africa's (GSA) plan of action. Outcome 7 specifically relates to the achievement of vibrant, equitable, rural communities and food security for all. Action Plan 6 focuses on the scaling up rural-development programmes including investment in rural areas and the revitalisation of smaller towns (Jacobs and Hart, 2012).

The Department of Rural Development and Land Reform (DRDLR) established in 2009 for concerted policy attention to bridging rural underdevelopment, has through its Comprehensive Rural Development Programme (CRDP) identified 24 Rural Districts Municipalities (RDM's) with significant infrastructure backlogs and low levels of human development indicators. But a coherent status of the skills development profile of these areas does not exist and from the fragmented evidence most rural areas have severe skills deficit inherited from the past (Jacobs and Hart, 2012).

By rural development it is meant that the benefits rural populations, where development is understood as the sustained improvement of the population's standards of living or welfare (Francis, and David, 2012). Rural development can be seen as not an outside intervention, but the aspiration of local people living in rural

areas for taking the challenge themselves and improving their life circumstances and their immediate environment.

Rural skills are traditionally associated with workplace and occupational profiles in natural resources dependent sectors (World Bank, 2007) Across developing countries these sectors continue to undergo accelerated and unavoidable changes as the global economy becomes more tightly integrated (Jacobs and Hart, 2012).

Changing rural-urban migration dynamics and rising levels in agricultural productivity, continue to restructure the skills profile in rural areas. Even though rural population growth is projected to decline it is important to know what kinds of jobs this declining labour force will find in rural areas (Wiggins and Deshingkar, 2007 cited in Jacobs and Hart, 2012).

In South Africa there is no formal or accepted definition of rural that clearly distinguishes it from urban areas The 1997 Rural Development Framework for South Africa (Government of South Africa 1997.p.1cited in Jacobs and Hart 2012, p.9)

Jacobs and Hart, (2012)defined rural areas as sparsely populated areas in which people farm or dependent on natural resources, including the villages and small towns that are dispersed through these areas. In addition they include the large settlements in former homelands created by the apartheid removals, which depend for their survival on migratory labour and remittances (Gardiner, 2008).

Such definition distinguishes rural areas from urban by emphasising the density of population and settlement patterns, the livelihoods and resources available, and the history of rural areas Two primary types of rural areas appear to exist in terms of the definition: commercial farming areas and the former homelands or traditional authority areas (Goldman and Reynolds, 2007 cited in Jacobs and Hart 2012, p. 9).

The commercial farming covers much of South Africa outside the metropolitan areas and are characterised by large-scale commercial farming units interspersed with small towns. Villages in some districts small pockets of former homelands. The former homelands are the results of South Africa's legacy of apartheid (separate development) policies.

Stats SA (2004) has attempted to consider settlement classification as means of addressing the obstacles posed by a lack of definition and identifies four key types of settlement in South Africa:

- Formal urban areas;
- Informal urban areas;
- Commercial farms and;
- Tribal or traditional authority areas of the former homelands and rural informal settlement (Jacobs and Hart, p10).

However while the shift by researchers this century to focus on metropolitan areas and district municipalities is an attempt to overcome the barriers resulting from a lack of an acceptable and agreeable definition of rural and clearly distinguish it from urban , it has proved obstructive (Jacobs and Hart, 2012).

Rural development ensures the modernisation of the rural society and the transition from its traditional isolation to integration with the national economy. Rural development can be distinguished from agricultural development which it entails and transcends. (Ogidefa, 2010) stated the misconception by successive governments that rural development is synonymous with agricultural development only.

Efforts should be made to include provision of modern infrastructure, primary health care, food and shelter, employment opportunities, affordable and compulsory primary

and secondary education, loans and other incentives to be part of rural development for the benefits of rural dwellers (Ogidefa, 2010).

However, efforts by such governments to pump money into agricultural development did not yield meaningful change desired. Agriculture and rural development started in Europe as development policy known as Common Agricultural Policy (CAP) (EUROPA, 2006).

It consisted of two pillars namely **agricultural market support**, and **the rural development policy**. The common aim of (CAP) can benefit youth in the sense that it contribute to the multifunctional dimension of the agricultural sector aiming at sustainable production of food and non-food products, safeguarding the country side and providing environmental services, employment in rural areas and helping to reinforce the economic and social cohesion between groups and regions (EUROPA, p.4).

This was to better respond to the changing international trading environment as a result successive (CAP) subsidies on quantities produced have been replaced by direct payments to farmers This helped to ensure a decent income for farmers. Targeting support towards farmers instead of products, reduces the risk that trade will be distorted by subsidies for export of additional production (EUROPA, p.4).

Rapid changes in agriculture lead to complete reassessments of the role of agriculture. The challenge for a reform of agriculture and rural development policies is to make them compatible with the rules and regulations under World Trade Organisation (WTO) and other international commitments (FAO, 2006).

2.2.2 The rural development policy

Since 2009 rural development has been nationally manifested in the Comprehensive Rural Development Programme (CRDP). Rural development and land reform as outlined in the (CRDP) conceptual document (DRDLR2009):

- Broad-based agrarian transformation involves increasing and improving all types and scale of agricultural production; the optimal and sustainable use of natural resources; the adoption of locally appropriate and sustainable technologies; improving the quality of life of each rural household.
- The improved land reform programme remains focused on restitution processes, redistribution and the reform of land tenure arrangements.

However nothing new in the pipeline .The integration of these strategies is assumed to bring about rural development-a concept that is never clearly defined in the CRDP documentation and one which inadvertently ignores the spectrum of rural change and livelihoods brought about as much by the local need to survive, as by the desire of rural inhabitants to appear modern in their actions (Jacobs and Hart, 2012).

Beyond these strategies the CRDP is premised on three phases:

- Phase 1 the incubator stage of the programme, in which meeting basic human needs is the primary driver;
- Phase 2 is the entrepreneurial development stage, whereby relatively large-scale infrastructure development is the crucial driver;
- Phase 3 is the stage of the emergence of industrial and financial sectors initially driven by small, micro and medium enterprises and village markets (Jacobs and Hart, 2012, p.12).

Job creation is central to the strategy and phased programme of rural development. Para-development specialists or Community Development Workers (CDWs) at village level are considered crucial to this job creation. Their role is to train and mentor identified community members to ensure the latter's gainful entrance into the economy. With many people living in rural areas without jobs rural development policy can play a role. It can focus on boosting growth and create jobs in rural areas (European Comission, 2006).

Strategic plan/guidelines can be used to identify areas for realisation of common priorities and a range which Member States could use in their National Strategic Plans and Rural Development programmes (EUROPA, 2006). National Strategy Plans translate Community guidelines into national context in the light of identified needs of the regions.

Member State's national rural development strategies are based on six Community strategic guidelines:

- Improving the competitiveness of the agricultural and forestry sector;
- Improving the environment and the countryside;
- Improving the quality of life in rural areas and encouraging diversification;
- Building Local Capacity for Employment and Diversification;
- Ensure consistency in programming;
- Complementarities between Community Instruments (EUROPA, 2006, p.5).

To see some changes in South Africa these plans need to be considered in terms of priorities. Thus special attention should be paid to a long term development of human resources and organizations should address this issue as an investment, the result of

which will later materialize in a growth of labour productivity in an increased stability of the staff and in an improved organizational climate (Armstrong, 2009).

South Africa also needs a common Agricultural policy (CAP) which will contribute to the multifunctional dimension of the agricultural sector aiming at inter alia, the sustainable production of food and non-food products, safeguarding the countryside and providing environmental services, employment in rural areas and helping to reinforce the economic and social cohesion between groups and regions (EUROPA, 2006).

This policy will focus on subsidizing production of basic foodstuffs in the interests of self-sufficiency and food security. It will move away from price and production support to a more comprehensive policy support through a single farm payment scheme, in addition to the preservation and management of natural resources. This has resulted in subsidies on quantities produced been replaced by direct payments for farmers. This will ensure a decent income for farmers/

According to (Muhammed, 2012) factors hampering rural development are:

- The roles of the state and traditional public in agriculture and rural development have been unclear;
- Resources have been concentrated in the hands of a few. This distribution has led to high unemployment;
- Designing incentive systems deal with common property resources is inherently difficult. Natural resources such as water, pastures, forests, and fisheries are being overused in many countries because they are treated as open access resource with few restrictions.

The rural development policy provides Member States with several possibilities to support environmental integration inter alia:

- Support to farmers for commitments going beyond baseline standards, including cross-compliance requirements via the agri-environment schemes;
- Support to farmers for compliance with demanding, newly introduced Community standards via the measure on meeting standards;
- Support to farmers and other beneficiaries for the conservation of genetic resources in agriculture;
- Other rural development measures such as support for training, for the use of and for setting up farm advisory services for non-productive investments in areas with handicaps (EUROPA, 2006, p.7).

Rural development can further be advanced through farm experience internship. By instituting Farm Experience Internship (FEI) program research students will stay for five days preparing and two farm-experience where each student will work and live with a rural family.

The FEI allows students who are the researchers, policy-makers, entrepreneurs and producers of the future to learn to understand directly address problems perceived by rural communities and social movements (UNDP and IPU, 2012).

It is crucial that skills development policies include youth and non-agricultural informal employment, where poverty reduction is most urgent (Walther, 2011 cited in Pieters 2013, p. 27). This could be achieved by improving and expanding traditional apprenticeship schemes, through local training committees and training schemes for agricultural occupations.

This can apply to low-income countries, where youth must continue to be absorbed in agriculture non-farm informal jobs, or self-employed.

A clear distinction between social and economic policies that are not specifically targeted at youth, but nonetheless benefit youth, either directly or indirectly, and policies that do target youth as a whole or groups of youth i.e. are youth specific. It is widely alleged youth development is at the periphery of the development agenda in most countries (Bennell, 2007).

Rural development policies must therefore embody region-specific approaches that cover all activities are multi-sectorial, including farming and other rural activities and other implemented in participatory and transparent manner It should support diversification and valorization of products within and outside the region (FAO, 2006).

2.2.3 Organic farming

The development of organic food and farming was legally introduced in Europe for binding requirements for organic farming and food production which helped to develop a fast growing market for organic products (EUROPA, 2006). Organic production is a prime example of sustainable development. It is an overall system of farm management and food production that can combine best environmental practices, a high level of biodiversity, the preservation of natural resources, a return of nutrients from organic waste to the soil, low input and high animal welfare standards.

Moreover, the products find their way to a dynamic growing market. Member States have policies in place to stimulate the development of organic agriculture often supported by national action plans. All these contribute to sustainable development. Such innovations can alleviate youth unemployment through job creation skills. Farmer skills (FFS) are another successful example of skills training and agricultural extension

service. FFS have spread around the globe and are being implemented in over 87 different countries reaching the estimate number of 10-20million farmers (Hartl, 2009). Farmer field schools consist of groups of people with a common interest, who get together on a regular basis to study the how and why of a particular topic.

The farmer field school is suited and specifically developed for field studies, where hands-on management skills and conceptual understanding non-formal adult education principles is required. The popularity of FFS programmes relies on the topic which needs to correspond to a need and training of trainers or organisers who facilitate farmer field schools (Hartl, 2009).

2.2.4 Reforms in Agriculture Education and Training Governance and Management Policies

Rural people's access to education and training is often limited by financial barriers e.g. scarce education and training infrastructure, inflexible training schedules (ILO, 2011) Many rural people do not have basic education .This also hampers their access to technical and vocational training or other skills development.

Rural livelihoods are becoming diversified. Agriculture is the main source of livelihoods but an increasing share of rural households' income comes from non-farm activities (ILO, p.4). Education and skills increase the ability to innovate and adopt new technologies in agriculture and enhance farmer's performance. Evidence from Asia suggests that better education and training increases the chances to find high-paying non-farm employment, whereas lack of education tends to limit options to agriculture or low-wage non-farm employment (ILO, p.1).

Education and training is often inadequate quality. Teachers and trainers may be unqualified, equipment and technology outdated, and teaching and training methods ill-

suited to rural context .In many developing countries, training systems tend to operate in isolation from the labour market and employers' needs, so training does not always match skills demand (ILO, p.1).

Environmental degradation and climate change present risks to rural livelihoods that need to be managed and mitigated. This requires new innovative. Access to training is a major constraint among rural people in developing countries. In India for instance nearly 90% of agricultural workers have no formal training and a study in Kenya indicated that over 85% of rural informal sector operators have no business or technical training at all (ILO, p.1).

Therefore changes in agricultural management practices are important such as a change in planting dates, row spacing, planting density and cultivation choice, and other measures, which would counteract the effects of limited moisture. Irrigation is currently used to supplement low levels of precipitation but this could become expensive and less effective, given the condition of increasing aridity (Brixiova, Ncube and Bicaba, 2014).

This would require a phasing out of irrigation farming and relocation of the production areas eastwards. To reduce the risk of famine marginal production areas could be kept economically viable by decreasing input costs on planting drought resistant crops such as sorghum or millet. Alternatively land use could be changed to grazing.

Many current agricultural practices such as conservation tilling, furrow dyking, terracing, contouring, and planting vegetation as windbreakers protects fields from water and wind erosion and assist in retaining moisture by reducing evaporation and increasing water infiltration (Briziova, Ncube and Bicaba, 2014). All this needs

knowledge from TVET' colleges and will empower youth with skills in execution and adaptation to changing climate.

Training outside the formal training system is important source of skills training in developing countries e.g. Benin, Senegal, and Cameroon informal apprenticeships account for almost 90% of all trades training (ILO, n. d.).The government should establish a National Agriculture Education and Training council to coordinate and drive entire system of Agriculture Education and Training (AET) according to the national priorities (Mayaki, 2013).

The council will sensitize a multitude of stakeholders, including political leaders, parliamentarians, the private sector, civil society organisation, farmer's organizations, academic institutions, on the importance of transforming AET institutions for its efficiency in producing human capital. These actions will ensure that AET attracts youth and women by providing modern on-the-job training and learning facilities which enhance their entrepreneurial skills and employability. This is practical through:

- Clear strategic plan based on national priorities and comparative advantages of the countries and regional dynamics;
- National assurance framework with appropriate monitoring and evaluation, self - assessment accreditation that mechanism, and dynamic development of training that responds to the different demands of various target groups;
- Lifelong and recognition of prior learning system in which the skills of workforce are continually upgraded and promoted;
- Representation of the whole AET system at national and international levels (Mayaki, 2013, p.6).

2.2.5 Reform and update curricula

The curriculum content of school level education and training is poorly controlled and the quality is often low. A number of educators responsible for teaching agricultural sciences in former Black schools are not qualified in science agriculture. The quality of non-formal education remains untested in most cases (RSA, 2006).

Reform and update curricula to take into consideration the dynamics shifts of the agriculture sector from family-on-farm production for subsistence purposes to consumes-and-market based needs:

- The curricula must respond to the interests of the youth by offering a wide range of appealing set of courses;
- Career paths may be needed to be structured around themes such as food security and nutrition, post-harvest storage and processing, agri-business and entrepreneurship, bio-information; and
- Bio-technologies and other more appealing themes.

Training of trainers in agricultural vocational and technical centres and entrepreneurs in agribusiness should be carried out to upgrade their skills (Mayaki, 2013). This should be accompanied by training methods. Here Innovation Centres (ICs) which hold training of trainers on best-practices in delivering services for different targets groups, such as farmers, workers in agribusiness, processors, agripreneurs and start-ups. The training will be more practical and use modern teaching methods and on-line course such Massive Open Online Courses (MOOCs).

To facilitate articulation across the pipeline pathways such as bridging courses must be developed to allow permeability between ATVET and TAE to reinforce rather than limit

opportunities. The development of NQFS and Regional Qualification Frameworks (RQFs) are important to guide these dynamics and complementary inter-relationships (Mayaki, 2013).

The link between the education system and labour market needs to be strengthened so as to better equip youth to face the world of work (ILO, 2005). Therefore improved access to vocational training on-the-job training programmes, more and better apprenticeships systems, soft skills training, and the combination of in-classroom and workplace training is of prime necessity.

A demand driven approach where employers have a role in identifying the skills needed in the productive sector ensures consistency between training curricula and the labour demand. A demand driven approach can also be derived from competitive participation of private and public training firms in the provision of skills training to young people (ILO, 2005).

Teaching pre-vocational subjects in the primary and junior secondary schools should be taken seriously to raise the interest of students for these vocational programmes. All stakeholders within the private sector should provide more funds for the purchase of instructional facilities (Oranu, 2005).

The current challenge is to prepare young people for the world of work, more effectively. Numerous third world countries like Brazil are faced with a demand for more literate and numerate school leavers than before. There has been a major focus on redesigning curricula to suit a world that is reinventing itself rapidly through new technologies. The same true to South Africa black children in the pre-1994 were not thought suited to learning mathematics and science (Cassim, 2006 cited in Ramdass, 2007, p.117).

2.2.6 Investment plan

Rural economic development and infrastructure are key to attracting and retaining young people. Rural communities and small businesses that support the food and ag sector require additional investment, expansion of physical and technological infrastructure (Emmy, 2015). Government must invest in infrastructure development, such as paved roads and internet connectivity for efficient and successful delivery of AET. The new infrastructure should be located in rural areas closer to the producers with easy access to experimental land for business incubator models (Mayaki, 2013).

Furthermore, a ten year investment plan coupled with a business model must be first established through a participatory approach during regular National AET fora. The private sector should be a key player in the system by offering a robust capacity to AET. Including on-the-job training, support for student scholarship, current and prospective employees sponsorships and mentorships.

To this end Jones, (2015) outlined the following ways Africa can raise farm productivity, develop high-yield crops by:

- **Increasing research** into plant breeding which takes into account the unique soil types of Africa;
- **Develop high-yield crops:** Increased research into plant breeding, which takes into account the unique soil types of Africa, is a major requirement;
- **Boosting irrigation** with the growing effects of climate change on weather patterns more irrigation will be needed. Studies reveal that average yields in irrigated farms are 90% higher than those of nearby rain fed farms;

- **Increasing the use of fertilizers:** As soil fertility deteriorates, fertilizer use must increase. Governments need to ensure the right type of fertilizers are available at the right times and right prices;
- **Fertilizer education** lessens the environmental impact and an analysis of such training programmes in East Africa it was found they boosted average incomes by 61%;
- **Improving market access, regulations and governance:** Improving rural infrastructure such as roads is crucial to raising productivity through reductions in shipping costs and the loss of perishable produce;
- Meanwhile providing incentives to farmers, including reductions subsidies, could raise agricultural output by nearly 5%;
- **Better use of information of technology:** Information technology can support better crop, fertilizer and pesticide selection. It also improves land and water management, provides access to weather information and connects farmers to sources of credit and connects farmers to sources of credit. Ghana is an agrarian economy with 81% population living in rural areas.

Agriculture is the largest economic sector accounting for 45% GDP and providing over 60% employments International Monetary Fund report (2006) cited in (Naamwintome and Bagson, 2013). In Africa Comprehensive Africa Agriculture Development Programme (CAADP) is a framework set up by Africa Union's (AU's) in partnership with African Development (NEPAD) programme is mandated to raise quality supply of food produced in Africa (Naamwintome and Bagson, 2013).

Donors to support agricultural development in Africa such as International Fund for Agricultural Development (IFAD) has lent approximately 52% annual lending for

financing of 317 in 51 countries. This indicates a need for programmes and projects funded in South Africa that could raise agricultural development.

Most rural development programmes today pay little attention to agriculture because it is perceived not as a viable engine of growth. The National Planning omission (2012) recognizes the importance of the role of agriculture in the South African Economy, given the fact agriculture is the primary source of economy contributions in rural areas and as such provides the greatest measure of employment in these areas (van Rensburg, 2014).

Eradicating hunger and poverty is the first Millennium Development Goal (MDG) set up by world leaders in the United Nations Millennium Declaration (2000). It included the target Achieve full and productive employment and decent work for all including women and young people (Kassa, 2013. p.90).

In January 2011 Food and Agriculture Organisation (FAO) launched a three year programme in Malawi and Tanzania entitled Policy Support on rural employment and decent work for promotion of equitable and sustainable livelihoods under conditions of climate change that is funded by the Swedish International Development Cooperation Agency (Sida) (FAO, 2013).

This will happen when individuals and groups are able to imagine their world differently and to realise that vision by changing the relations of power that have been keeping them in poverty (Eyben, Cornwall and Kabeer, 2008 cited in Pettit, 2012, p.9).

2.3 Skills and enterprise development in preparing the youth for career entrepreneurial opportunities that will help break the cycle of poverty

The supply shortage of skilled staff is a serious obstacle in South Africa. The Skill Development Act and the levy grant scheme aims to incentivise organisations to expand the competencies of the labour force, resulting in improvements in employability and productivity (Fasset, 2010). By participating in the scheme, employers will reap the benefits of a better skilled more productive workforce.

A strategic framework for skills development are quality education as a foundation for future training; a close matching of skill supply to the needs of enterprises and labour markets; enabling workers and enterprises to adjust to changes in technology and markets and anticipating and preparing for the skills of the future. Within the same sentiment is (Anonymous, 2010) who argued for an essential capacity to anticipate skill needs to align training provision with changing needs in the labour market point of anticipation of future skills.

A number of methods are applied to forecast future skills needs. These include forecasting occupational and skills profiles at various levels of disaggregation, but also social dialogue, labour market information systems and employment services.

Quality primary and secondary education complemented by relevant vocational training and skills development opportunities prepare future generations for their productive lives-endowing them with the core skills that enable them to continue learning (ILO, 2010). Shortage of critical skills needs consideration as stated in The AET Strategy (2005) include the following skills:

- Agricultural production;
- agricultural engineering;

- agricultural economics;
- agricultural development; and
- veterinarians.

Training in agricultural engineering has focused on supporting large scale commercial farming and this has resulted in a shortage of appropriate technologies for small-scale farmers (RSA, 2006).

Improving literacy skills through better primary education is urgent in many low-income countries. Education policies should aim at improving access to secondary education for disadvantaged youth. They are constrained by the cost of schooling and the case of young women, by social and cultural barriers. Mentoring and remedial teaching in primary education can be a means to improving not just literacy and numeracy skills but also social skills, self-esteem and information about further education (Pieters, 20113).

Investing in workforce, skills are a widely shared objective: All G20 countries have identified skills development as a strategic objective. India adopted an ambitious National Skills Development Policy in 2009; South Africa is adjusting training strategies under newly created Ministry for Higher Education and Training; the United Nations is committed to the Millennium Goal of achieving universal primary education; UNESCO, in support of the Education for all campaign, recently adopted new guidelines on technical and vocational education and training (Proposal, 2010).

To this end called (The International Labour Conference, at its 97th Session 2008) (Proposal, 2010) for a holistic development encompassing the following features:

- Continuous and seamless pathways of learning that start with pre-school and primary education that adequately prepare young people for secondary higher education and vocational training that provide career guidance, labour market;
- Information and counselling as young women and men move into the labour market, and that offers workers and entrepreneurs' opportunities for continuous learning to upgrade their competencies and learn skills throughout their lives;
- Development of core skills- including literacy, numeracy, communication skills and learning ability as well as awareness of workers' rights and understanding of entrepreneurship are not linked to performance in specific occupations but are the building blocks of the life- long learning and adaptability to change;
- Development of higher-level skills- professional, technical and human resource skills to capitalize on or create opportunities for high- quality or high wage-job;
- Portability of skills based first on core skills to enable workers apply knowledge and experience to new occupations or industries and on systems that codify standardize, assess and certify skills so that levels of competence can be recognized by social partners in different labour sectors across national, regional and international labour markets; and
- Employability (for wage work or self- employment) which results from all these factors-a foundation of core skills, access to education, availability of training;
- Opportunities, motivation, ability and support to take advantage of opportunities for continuous learning, and recognition of acquired skills.

Skills shortages in South Africa are the consequences of the interplay of several complex socio-political and economic factors (Rasool, and Botha, 2011, p.2).The apartheid education and training system produced super-structural chaos that wasted

funds, inefficiency and very poor graduate outputs aggravated (Hofmeyr and Buckland 1992 cited in (Rasool and Botha, 2011, p.26).

TVET has been an undervalued part of the education system for many years, often overshadowed by the higher education sector (OECD and ILO, 2014). It is often seen as a second-best, low-status option providing class-based programmes for academically weak students unconnected to the employer needs and mainly confined to traditional subjects.

In contrast in best-practise countries, it has a higher status and has been extended to providing state-of-the-art skills increasing at an advanced level. Skills are central to improve employability and livelihood opportunities, reduce poverty, enhance productivity, and promote environmentally sustainable development (ILO, 2011) and training is needed in rural areas of South Africa.

Countries that have succeeded in linking skills to productivity, employment and development have targeted skills development policy towards the objectives: Matching supply to current demand for skills, helping workers and enterprises adjust to changes and building and sustaining competencies for future labour market needs (ILO, 2010).

Investment in the development of agricultural sector in South Africa holds the potential to create approximately 969 500 (643 000 direct and 326 500 indirect) jobs, according to the NPC (2012 cited in van Rensburg, 2014.p.6). Hence a three-pronged land reform programme aiming at tenure reform, restitution and land redistribution, was launched in 1994 (Act No.108 of 1996) (Gwanya, 2010). The implication is that the recipients of these lands need skills and capacity to utilise what they receive effectively in order to maintain sustainable production and food security (Minkley 2012 cited in van Rensburg, 2014, p.7).

Good education and training of good quality and relevance in the labour market empower people to develop their full capacities and seize employment and social opportunities, raise productivity of workers and enterprises, contribute to boost future innovation and development; encourage domestic and foreign investment, thus job growth lowering unemployment and underemployment (ILO, 2010).

This is centred within the youth skills development and replacement theory of this research. In line with good education and training the Skills Development Act and the levy grant scheme aims to incentivise organisations to expand the competencies of labour force resulting in improvements in employability and productivity. By participating in the scheme, employers will reap the benefits of better skilled and more productive workforce (Fasset, 2010).

Expanding skills and broadening access to skill formation are: quality education as a foundation for future training, a close matching of skills supply to the needs of enterprises and labour markets, enabling workers and enterprises to adjust to changes in technology and markets and anticipating and preparing for skills of future International Labour Office (ILO) (ILO, 2010).

Therefore quality primary and secondary education complemented by relevant vocational and training and skills development opportunities prepare future generations for their productive lives-endowing them with the core skills that enable them to continue learning. When applied successfully, this approach nurtures a virtuous circle in which more and better education and training fuels innovation investment, economic diversification and competitiveness and social occupational mobility and create more productive and rewarding jobs (ILO, 2010).

TVET courses should include apprenticeship. The willingness of youth to undertake an apprenticeship will be determined by training working conditions and pay if not competitive and programmes do not lead to the acquisition of skills that are needed by employers (OECD and ILO, 2014) and offering programmes where training is not too narrow focused and that leads to a recognised qualification or certification and is well integrated with the formal schooling system will enhance the value youth get from apprenticeship.

Apprenticeship cannot expand and become a recognised pathway from school to work without strong involvement of employers (OECD and ILO, 2014:19). (van Rensburg, 2014) mentioned three development needs in agricultural sector:

- **Macro- level needs** where the government has vested interests in the development of the skills of its citizens as such development is strongly related to the welfare of the country;
- **The micro-level** where the government has vested interests in the development of the skills of its citizens as such needs for certain skills to operate effectively which skills can be attained from the organization through employments of existing employees in the organization;

Indeed there is little consultation with employers' and employees' organizations and community leaders to determine the requirements and ensure that young people are prepared for life of ever changing skills knowledge and lifelong learning (Cummings, 2005).

- **Micro- level needs** in which individual capacity is assessed to determine the person's readiness to perform certain function.

TVET often plays a limited role due to weak links with skills demanded by private sector, insufficient funding, poor monitoring and evaluation, stigmatisation and low returns (Pieters, 2013). Youth employability can be improved through skills building or other extensions e.g. access to finance, and business development services.

To address skills shortages and mismatches requires action on several fronts including formal and non-formal general education, TVET and apprenticeship training (Pieters, 2013). Large skill mismatches and poor quality of education and training mean that joblessness coexists with unmet demand of skilled labour (Pieters, 2013).

Developing countries like South Africa needs to include youth in agriculture and informal economy, building on the existing informal training providers where possible and including recognition of skills acquired in non-formal learning (Pieters, 2013). In emerging G20 countries the fundamental challenge remains to improve the quality of work for the bulk of young people already at work but under-employed or engaged in poor quality and low-paid jobs in the informal economy (OECD and ILO, 2014).

Low-skilled youth remains affected by joblessness and if employed, face a high risk of working in low-quality, low-paid and precarious jobs in most countries (OECD and ILO, 2014). Therefore, skills will improve output, quality, diversity and occupational safety increasing incomes and livelihoods of the poor South Africans. It will also develop social capital and knowledge about informal sector associations, rural organisations and governance (Hartl, 2009).

However, skills will not be sufficient to improve labour market outcomes if these skills do not match those demanded by employers (OECD and ILO, 2014). Skills development in rural areas requires various types of skills provision using innovative

methods of delivery and capitalising on existing social institutions (ILO, 201, p.1.) This will be achieved through:

- Combining technical and entrepreneurship training through incorporating business knowledge and skills in formal secondary and tertiary education or through developing innovative community-based training programme;
- Complement entrepreneurship training by facilitating rural entrepreneur's access to micro-credit schemes, business development services and market information;
- Promote apprenticeship systems as viable option for young women and men to learn a trade;
- Upgrade traditional and informal apprenticeship systems to offer higher quality training and facilitate technological advances and innovations (ILO, 201.p.2).

To this end it is important that skills development policies include youth in agricultural and non-agricultural informal employment where poverty reduction is most urgent. This could be achieved by improving and expanding traditional apprenticeship schemes e.g. through local training committees and training schemes for agricultural occupations (Pieters, 2013).

2.3.1 Upgrading skills for increased agricultural productivity

Important to know is the relationship between talent and skills as this can help students to discover themselves prior to any option of a career. It can also help educators in the guidance of students who did not get this guidance at home. (Surbhi, 2016) defines talent as an inborn ability of a person which often hidden and needs negotiations. It is something one does best without putting extra effort.

Skill is the ability or expertise in performing a task, obtained by a person through systematic learning, practice or experience. It is an outcome of a continuous efforts and improvements made to gain proficiency. Skill enables one to perform a task efficiently and can be practiced by any person but requires time, hard work and other resources for develop a person.

It can be general or specific General skills which are commonly acquired by the people like leadership skills, specific skills which are related to performing a particular task or job (Surbhi, 2016)

Differences between skills and talent (Summary)

Comparison	chart	Talent is inherent ability to do something	Skill is the expertise to do particular task efficiently
Talent			
1 Skill1.Meaning			
2. What is it?		It is God gifted	Something you develop
3. Possess by		Few people only	Anyone can possess it through learning
4.Requires		Recognition	Development
5.Guidance		Coaching	Training

Skills need upgrade for better production particularly in the rural areas where unemployment and poverty needs immediate attention. With more skills value chain can easily form since it is formed from a linked set of activities in agriculture that work to add value to a product (Norton, 2014).

That will contribute towards job creation and replacement. This is imperative and can only be probable if developing and upgrading skills in the informal economy (ILO, 2008).

- Support small-scale producers in accessing markets, modern technology and value chains, which can help channel knowledge and information;
- Expand the reach of rural extension service through a combination of formal and non-formal approaches;
- Train women as extension workers to enable women farmers to benefit from extension services in gender-segregated societies;
- Promote skills development in producer associations and rural cooperatives (ILO, 2008, p.3).

Efforts to vitalize agricultural education should concentrate on updating curricula transforming teaching practices, and increasing the number of graduates' at all post-secondary levels. Most agricultural institutions offer curricula focused narrowly on the production of predominant crops and livestock (Brewer, 2011).

For agricultural higher education priority must be given to staff development campaign. Doctoral training can be carried out in the existing African centres of strength in agricultural disciplines such as in Pietermaritzburg and Jomo Kenyatta University of Agriculture and Technology in Kenya and the Ecole Nationale Supérieure d'Agriculture in Senegal (Brewer, 2011).

At the Department of Agriculture, Forestry and Fisheries (DAFF) (Joubert 2013) stated that a big need exists for skills upgrading of extension officers in agricultural economics, business and financial management, and technical and production-related skills such as husbandry, poultry, crop production and horticulture.

There is a shortage of sugarcane cutters, fruit pickers' animal handlers and dairy parlour workers. Government needs to embark on national marketing drive to promote the importance of agriculture as a career (Chris Mason cited in Joubert, 2013. p. 2).

Such associations can provide effective avenues for upgrading their members' technical and entrepreneurship skills and open access to information, markets and institutions providing inputs and know-how.

2.3.2 Enterprises from skills development

It seems that the idea that rural development involves far more than economic pathways that are shaped agricultural practices and inputs is seriously overlooked, as are the contributions of various professions and skills outside of those directly related to agriculture (Jacobs and Hart, 2012).

Despite the focus on agriculture in rural development recent research suggest that specific skills and the subsequent presence of significant professionals are required in rural areas but are in short supply. Funding and maintaining employment requires broad-based occupational skills acquired in training institutions or on the job.

In today's rapid evolving and globally competitive economy they increasingly include personal capabilities such as flexibility, resourcefulness and communication (Brewer, 2012). Enterprises provide training available only to those with formal jobs, those with higher levels education. Smaller enterprises train less frequently and often use apprenticeships which can perpetuate traditional skills that cannot be useful in changing markets.

South African youth economic participation is very low. It expresses itself in high levels of unemployment, poverty, illiteracy, among youth and lack of exposure to sustainable

livelihoods which in turn exposes young people to social ills (Labour Force Survey, 2011). Low economic growth has played an indirect role in retarding the participation of young people in the economy and in the creation of youth enterprise (Labour Force Survey, 2011).

Enterprises today are market-driven flexible, and must be capable of adapting and responding to rapid changing market. These are précises missing in VET systems (Cummings, 2005).

At the level of enterprise, a learning skill development culture can be promoted through:

- A flatter organisations and self- managing teams;
- More flexible work assignments within broader job descriptions;
- more employee involvement in decision making;
- and shifting the role of managers away from day-to-day control towards enabling and facilitation (Cummings, 2005).

Specific techniques, mainly applicable to the just-in-time learning needed to increase the knowledge-based required supporting new production processes, new services, new markets and new client groups include:

- Work force entry skills for young people entering the workforce;
- Cross-training which utilises techniques technique of multi skilling through team work (mutual learning among team member);
- Job rotation to broaden/deepen skills;
- Formal and informal problem-solving groups which may involve workers in issues outside their immediate sphere of responsibility (thereby expanding

understanding of their wider work environment and valuing their knowledge and experience;

- Promoting the rewarding research linked to specific problems, products or processes and making use where appropriate of ICT (Cummings, 2005, p.53).

Small enterprises, and self- employed including those in rural areas and the informal economy, qualify for skills development and lifelong learning programmes. Cooperative solutions and pooling of information and support mechanisms seem a good way to approach skills development for enterprises (ILO, 2010).

The curriculum must also be fortified through the inclusion of the Enterprise Your Life- which focuses on the practical development of enterprising life skills and the formation of Youth Saving Groups (YSGs).

This will encourage youth from lack of confidence to start up their own businesses and get negotiation, communication, planning or idea generation skills to successfully run an agro-enterprise

2.3.3 Education and training from youth skills development

South Africa is facing a major skills shortage in various facets of the economy (Pandor, 2007). Maria Ramos, CEO of Transnet mentioned that there is a severe, potentially incapacitating skills challenge as SA attempts to build a sustainable higher levels of economic growth with shared benefits. Also is a need for mindset change by educated rural youth to be understood within the context of their aspirations and frustrations (Sanginga, Lohento and Mayenga, 2015).

Globally some estimates suggest that 50% of firms in the developing countries are facing a skills shortage and one of the reasons for this predicament is the short

sightedness of the government in the restructuring of teacher training colleges. One of the beneficial aspects in the apartheid era was the teacher training colleges that produced teachers for the primary and secondary sector (Ramdass, 2007).

Learning should go beyond the boundaries of the classroom/school through non-formal lifelong learning activities. Learning should emphasize the skills needed for individuals to develop their full potential (Report, 2007). Relevant training institutions are essential to skills development strategies and policies. Existing training infrastructure needs constant innovation to keep with new technologies and learning methods (Proposal, 2010).

The provision of good quality post-school skills training remains very limited in most rural areas. Typically, training services are fragmented and no coherent policy framework exists which provides the basis for pro-poor rural training system (Bennell, 2007). Education system could do more to assist the transition from education to the world of work.

Higher levels of educational attainment leads to a more skilled and productive workforce, producing more efficiently a higher level of goods and services, the basis for faster economic growth and rising living standards International Labour Office (ILO) (ILO, 2010).

Where human rights legislation deals with education, its central concern is equity: the objective of increasing equality in learning outcomes access and retention. This ambition reflects a belief that all children can develop basic cognitive skills, given the right learning environment; that many fail to develop these skills is due in part to a deficiency in education quality (Ramdass, 2007).

Recent analyses confirm that poverty, rural residence and gender inequality persists as the strongest inverse correlates of school attendance and performance and that poor instruction is a significant source of inequality (UNESCO, 2003a cited in Report, 2007, p.31). To this end it is important to note the education traditions and associated notions of quality.

People who seek particular defined outcomes may rate quality in those terms ranking educational institutions according to the extent to which their graduates meet absolute criteria concerning eg. Academic achievement (Raport, 2005). Measures to strengthen this function are being introduced in Argentina, Australia, Canada, China, France, Italy, Japan, Mexico, Russian Federation, Republic of South Korea, and the United States. However, the transition to higher education which is particularly difficult and expensive for rural youth requires support.

In Canada, the Youth Employment Strategy (YES) is a national programme whose aim is to help achieve a better match between the skills that youth acquire and those needed by the labour market (OECD and ILO, 2014). Training plays a role in agriculture. Any training and basic education activity faces the challenge of how to adjust training methods, curricula and training style to the needs of the target population (Hartl, 2009).

Training projects and programmes for the poor have replicated the policies and practices of the formal sector and most are rote learning which do not include experiments. Furthermore, trainers often have little or no understanding of the specific problems of the rural poor (Hartl, 2009). Training young people to take up agricultural, mineral, commercial and industrial production using contemporary systems and promote the benefits of modern information and communication technology to gain

access to existing and new markets is important. Matching supply with demand still leaves much to be desired in rural areas (IFAD, 2011).

South Africa is no option amongst the G20 countries which are facing the daunting challenge of generating productive and rewarding jobs for large and growing numbers of youth. It needs to deal with the declining job opportunities for low- skilled youth while mobilising potential labour resources to cope with the fiscal pressure arising from rapid population ageing (ILO, 2014).

Vocational Education and Training system is seen as an element of national socio-economic strategies internationally (Akoojee, Gewer and McGrath, 2005) to solve this issue in rural areas of South Africa. TVET has the potential to be demand-driven responding to the current needs of employees in the changing field of agriculture and the combination of agricultural chain growth and work force development will provide myriad opportunities (Marquire 2011 cited in Jones, 2014).TVET in South Africa forms the domain of Further Education and Training (FET) Colleges (Stumpf and Niebuhr 2012.p.2) and does not address the needs rural farms.

Creating more and better rural jobs depends on the effective implementation of rural development policies and strategies. It requires inter-ministerial and multi stake holder mechanisms, further empowering civil society organisations and engaging with private sector (FAO 2013).Therefore creating more jobs in rural areas needs TVET training Development Agents (DA's) to work and teach in Farmer Training Centres (FTC's) to enhance the knowledge base skills of farmers thereby provide the institutional framework for increasing efficiency of agricultural extension services (Davis, Swanson, Amudavi, 2010).This must be determined by the training to match the needs.

In many developing countries, training system tends to operate in isolation from the labour market and employer's needs (ILO, 2011).The TVET's are increasingly being staffed by well qualified instructors; BSc holders at the most TVET colleges are providing non-formal specialized short-term training, skill-gap training, entrepreneurial training services for farmer's agriculture businesses and the public sector.

This will broaden the little known about skills development in rural areas since they are traditionally associated with workplace and occupational profiles in natural resources dependent on sectors (Jacobs, 2012).

To this end argued Hoffman that Swiss style of education be adopted in which students in their last two years have the option of participating in highly structured workplace apprenticeships working for pay several days per week and spending the rest of the time in the classes (Goldstein, 2012).

Although traditional agriculture continues to be the mainstay in rural employment in parts of Africa and Asia, rising shares of non-farm rural employment are expanding and resulting in a wide variety of occupations (self-employed farmers, artisan, manufacturers tourism and skills levels (Goldstein, 2012).

However, skills remains the core to improve employability and livelihood opportunities reduce poverty, enhance productivity and promote environmentally sustainable development (ILO, 2011). Recognising education and training and lifelong learning contributes to promoting the interests of individual's enterprises, economy, and society as a whole (Cummings, 2014).To this end it is important to understand agriculture in the following concepts:

- as an art: it embraces the knowledge of the way to perform the operations of the farm in a skillful way;

- as a science: it utilizes modern technology development on scientific principles such as crop improvement and crop production;
- as the business: it is the way of life the rural population, production is bound to consumption;

This indicates the ability of individuals and groups to think and engage themselves in their own interests; meaningful empowerment (Pettit, 2012). Skills development will ensure return on investment for investors under Broad Based Black Economic Empowerment. Empowerment (BBEE) codes which is the aim of the youth skills development and replacement theory guiding this study.

2.3.4 Youth empowerment in agriculture

Agriculture and natural resource are crucial for pro-poor growth; empowerment is the key to the success and sustainability of development initiatives in these areas (Prat and Longo, 2012). In the past, youth were too seldom considered as a separate and pivotal interest group within rural transformation. Rather it was assumed that what must be good for rural communities as a whole is necessarily beneficial to youth, and at best their interests were linked to those of women and other disadvantaged groups. This trend is now being challenged where youth, especially educated youth returning to rural areas, are viewed as a key entry point for new agribusiness and resulting employment creation (Sanginga, Lohento and Mayenga, 2015). In order to fulfil the potential as the employment solution for young people in Africa, the agricultural sector must first become more profitable, competitive and dynamic. It must generate decent jobs for its workforce, thereby extending positive impacts to local communities.

Rural youth are our future farmers, and most likely to adopt modern farming and agribusiness methods, assume market orientation, and ready to fill the current vacuum

in the provision of services and logistics that are essential in the overall development of agriculture and agribusiness(Snginga, Lohento and Mayenga,p.4).

The population shift from villages to towns and cities has been partly due to lack of information and knowledge about the opportunities in the agricultural industry and flawed perceptions most educated people have about agriculture and farming which is low status and income (Rodger, 2005).

Furthermore, farm populations are ageing in many developing countries as rural youth migrate to urban areas in search of work. Without increased involvement of youth in agriculture, long-term shortages in skilled agricultural labour will inevitably occur (FAO, 2013). Failure to reverse this trend will have a negative impact on agricultural productivity output and food supply which tends to undermine households and national food security Young people out of employment or with only short employment spells, having left education too early, and with inadequate skills form a common group facing a high risk of marginalisation and social exclusion.

Upgrading is an essential measure to ease their labour market entry. The more relevant the training to future employment prospects, including workplace training, the better the outcomes (ILO, 2010).

The OECD's review of Jobs for Youth suggests that improving the skills of youth, and hence their long-term career prospects, requires the following actions (Proposal, 2010, p, 29):

- do everything possible to avoid school-dropouts;
- promote the combination of work and study;
- offer every youth a second chance at qualification.

Youth is very important resources for every nation for sustaining agricultural productivity an important sector for the development (Naamwintome and Bagson, 2013). In the world of work, they are more inexperienced than the adults because they lack exposure to a working environment and the job and soft skills that grow with time (Coronacion, 2012).

South Africa has the third highest unemployment rate in the world (Zokwana, 2014).Equipping them with skills needed in the labour market and giving them opportunities to become well-integrated into the world of work contributes to their productive potentials of economy and social cohesion more generally (OECD and ILO, 2014).

There is insufficient youth participation in the agricultural sector though this class is the most productive of any society as it contains people in the prime of their lives physically and mentally. This is so because young people see agriculture a sector which represents back breaking labour, which lacks the opportunity for economic benefit and the potential for career advancement.

The agricultural sector, however offers a huge potential for job creation for young people (SNV, 2005). Improving youth productivity in the agricultural sector and exploring effective livelihood diversification is imperative. This will provide access opportunities that will develop them into participating economic players as required by the theory of this research.

Today, agriculture is different; it is:

- **scientific advance:** a good agriculturist plans well and uses technology to help him to attain maximum benefits with fewer efforts which most people are not aware of;

- **.Machinery:** The first tractor revolutionised farming in the late 20th century;
- **Agricultural technology:** Nanotechnology and genetic engineering have opened a hitherto magical world of hybrid crops and other produce;
- **Awareness levels:** The health concerns have witnessed a soaring population and demand for organic vegetables and fruits.
- There have been advancements in the use of the right kind of environment friendly, synthetic fertilisers, pesticides and growth hormones (Rodger, 2015).

Responding to awareness deficit, (FAO, 2013) consulted donors and governments on the importance of creating decent employment opportunities for rural youth. To do this, a series of knowledge products highlighting the role of decent rural employment as a core of sustainable poverty reduction is needed in South Africa (FAO 2013).

Furthermore, country engages in specific research activities to advice stakeholders about employment conditions and opportunities in their respective countries needs development (FAO, 2013). This can include analysis of a given country's labour market conditions, youth employment situation and untapped opportunities for rural employment generation. This will maintain a stable condition in a country

Youth unemployment cuts across all frontiers of both developing and developed nations. About 85% of the total populations of youths today live in developing countries where there are only few employment opportunities (Maxwell, Hezekiah and Stephen, 2014). Social unrests, conflicts poverty and urban migration are causal factors of political and economic instability (Okafor, 2011, Adesina, 2013, and Ifeoma, 2013, cited in Maxwell, Hezekiah and Stephen; 2014, p. 48).

In Sub-Saharan Africa youth unemployment is a socio-economic problem. One of the panaceas of sustainable development is youth empowerment (Maxwell, Hezekiah and

Stephen, 2014).The agricultural sector offers a wide range of employment opportunities because of multifaceted and multifunctional nature of sector.

In Sub-Saharan Africa young people aged 15-24 comprise 36% of the entire labour force, 33% in the Near East and North Africa and 29% in South Asia.

Youth unemployment is linked with landless to regional youth unemployment and an increase disinterested in small holder farming which is viewed as dirty work (Bennell, 2007).This could be attributed to older peoples' dominant decision making at all levels in traditional societies and the view that youth always present problems which need to be solved through intervention of older people (Bennell,p.7).

In Africa 20% of the population aged between 15 and 24 years comprising more than 20% of the population and the majority lives in rural areas (Naamwintome and Bagson, 2013).

This is because consideration of youth as future farmers in Africa has not received adequate attention. This is also in contravention with the (African Youth Charter of 2nd July 2006) which states that:

- Every young person shall have the right to social, economic, political and cultural development with due regard to their freedom and identity and in equal enjoyment of the common heritage of mankind; and
- Every young person shall have the right to participate in all spheres of society.

Youth empowerment in agriculture is important in South Africa because youth is generally more educated than their parents and holds the potential for innovation (FAO, 2012) Involvement of youth in agricultural activities has the potential of reducing

the problems of ageing farm population and increasing youth unemployment (Naamwintome and Bagson, 2013).

Investing in the youth by promoting good habit is crucial if they are to realise their full potential. This is in line with postulation of the aims of the theory in this research. Rural children in developing countries become adults quickly mainly because the transition from school to work usually occurs at an early age and is completed in a short space of time and rural youth also lacks economic autonomy (Bennell, 2007).

In Ghana youths are valuable resource since this age group is the true wealth and future of the nation (Naamwintome and Bagson, 2013). In terms of African Youth Charter (2006) adopted in (July 2nd 2006) held in Banjul: Article 10 states that:

- every young person shall have the right to social, economic, political and cultural development with due regard to their freedom and identity and in equal enjoyment of the common heritage of mankind;

This will create a sense of personal accountability amongst youth which is stated aims of the theory in this research. Enhance the attractiveness of rural areas to young people by improving access to services and facilities such as educational and cultural services.

Young people can transform value chain s within the agriculture sector both on and off-farm by applying new technologies and smart approaches. They can provide a workforce that is energetic, innovative and critical to the changes required to modernise agriculture and make it more sustainable (SNV, 2016).

However, in many developing countries inheritance remains the main means for young people to access land. It is sons who inherit land, daughters only gain access to land through marriage. This deprives of youth's right to land (Bennell, 2007).

All South Africa's provinces have rural areas, and all are different from each other (Gardiner, 2007). It is therefore important to invest in young people by providing them with education and vocational training they need to take advantage of new employment opportunities (Pye-Smith, 2011).

(Murphy, 2012) stated the importance of age in farmers and referred to it as young farmers. The age of 40 years is considered because:

- It is where a person is looking to gain finance in an agricultural asset that is portable or short-term like stock equipment, crop inputs land rental or short term lease;
- This is where a person is looking to gain finance in an agricultural asset that is fixed like land or long-term lease of buildings and infrastructure.

This age accommodate most unemployed youth in South Africa who take agriculture as economic viable.

In Australia a Young Farmer Finance Scheme through Rural Finance has been made available to the young farmers. It allowed them to:

- To purchase stock and equipment for a term of 8 years with a 2% concession off Rural Finance's commercial interest rate for the first three years;
- Purchase land for a term of 15 years with 2% concession off Rural Finance's commercial interest rate for the first five years to grow.

This is aimed at young farmers who are looking to purchase their first block of land as a first step towards owning and operating a commercial farm. This sounds good for youth self- sustainability but what happens if the young farmer does not prosper? An increase participation of youth in agriculture is necessary in facilitating food and nutrition since:

- There is an ageing farmer population which must be retired to ensure sustainability;
- The food import bill would continue to increase the agricultural production falls. Therefore, it is necessary for youth to take up farming to increase the level of productivity;
- The image of people involved in agriculture as poor, needs to be changed;
- Youth are catalysts for such a change since they are perceived as more willing to adopt new ideas, technology and concepts;
- Agriculture can play a significant role in removing youth unemployment;
- Agriculture can provide productive for youth and help reduce crime and other similar social problems;
- The availability of income generating options would help to rehabilitate many young persons (Rodger, p.3).

2.3.5 South African women empowerment in agriculture

Usually, in countries where unemployment is lower for young women this often only means that women do not even try to find a job and leave the labour market (Coronacion, 2012).

The Dakar Framework for Action and Millennium Development Goals 2 was to promote gender equality and empower women (Report, 2007) Women undertake the majority of

agriculture work in addition to domestic or reproductive work with limited control over their own labour (Okali, 2011). This is attributed to local and family norms limiting women's ability to operate in the public sphere.

Shared interests and shared consumption of collectively produced food are clearly central to women's lives. Output produced by women must be seen as both a source for their own wealth accumulation as well as buffer for fluctuations in men's incomes which are central to household survival. Social empowerment is about changing society gender so that women's place within it is respected and recognised on the terms on which they want to live, not on terms dictated by others (Pettit, 2012).

Political empowerment concerns equity of representation in political institutions and enhanced voice of the least vocal so that women engage in making the decisions that affect their lives and lives of others (Pettit, 2012). South African women are still lagging behind in leadership in private and public sectors (Ntuli, 2015).

Economic empowerment is about women's capacity to contribute to and benefit from economic activities on terms which recognise the value of their contribution respect their dignity and make it possible for them to negotiate a fairer distribution of returns.

(Sathekge, 2015) commented that the Department of Labour says equal pay for work of equal value is vital in the place of work and is indeed a business imperative in South Africa

Providing girls with information about land rights and skills to engage in land-based livelihoods empowers them to contribute to their own food security and nutrition and that of their communities. To achieve this, Landesa-a rural development institute has developed. The Girls Project (UNDP and IPU, 2012) which enables young rural women in the West Bengal region to realise their land rights and to produce and sell their own

food. This improved their long-term economic and social prospects and reduced their vulnerability to hazards as child marriage, lack of education and malnutrition. This accounts for the possibility of BBBEE theory in this research. Practical activities focus on teaching the girls to cultivate small gardens, in which they raise nutritious produce to add to their family's food supply or sell for income.

However, Coronacion (2012) revealed the following barriers faced youth at work-places:

- Slow-job growth economies-low economic growth and the reliance of certain economies on export commodities and few capital intensive industries;
- Low quality job trap-regulations and employment protection play a role in opening or limiting opportunities for youth to enter the labour market;
- Inadequate job matching. The young person with a set of skills has in mind a job and a wage he is willing to accept. At the same time an employer has a set of skills in mind she needs and wage she is willing to offer. When both meet their expectations coincide. Insufficient or imperfect information on available jobs limits the match between job seekers and employers, particularly among youth who have weaker access to job networks and social capital;
- Work experience trap-Young people often find themselves in a paradoxical situation where they are not hired because they lack experience and they lack job experience but because they are not hired;
- Lack of access to capital and entrepreneurship/business training-by choice or because they had to young people who opted for entrepreneurship find it hard to start a business and keeping it alive.

Youth employment in South Africa: Policy integration and targeting Employment as part of pro-growth and poverty alleviation policies, job creation is the main strategy for poverty eradication and is promoted through macro-economic policies, sectorial policies and individual programmes. Key elements of national policies: The national employment strategy framework includes the following non-age-specific and youth-specific targets:

- Create jobs;
- raise skills base and move into higher value added sectors;
- increase labour- absorptive capacity of the economy through Small Medium Enterprise (SME) promotion;
- improve functioning of the labour market;
- improve education and training;
- improve social security;
- address crime;
- address employment (targeting youth and vulnerable group).

Responding to the development and employment needs of young people, the employment strategy aimed to promote youth employment and skills development through youth training subsidies, measures to avoid displacement of existing workers when young workers are taken on, improve career guidance in schools, internships and improve vocational training. Coordinated by the National Youth Commission,

The National Youth Policy (1997) addresses broader issues relating to youth development including education and training, employment and unemployment, public participation and crime prevention.

This policy recognizes the broader national context in which it was formulated and is being implemented. The employment Enquiry Act of 1998 prohibits discrimination on a wide range of grounds, including age, and requires employers to implement affirmative action measures.

Source: Department of Labour: Accelerating the rate of growth and pace of development through partnership, prioritization and active participation, Government's position paper on the Growth and Development Summit 2003; available on website:www.labour.gov.za/docs/pr/2003/apr/11-dol.htm.

Empowerment can have an individual and /or collective dimension (e. g. small workers or employers' associations, or cooperatives). An example of the holistic approach is India's Self Employment Women's Association (SEWA), which offers various support services, coordinated many local organisations, and managed to give self-employed women a voice (Pieters, 2013).

2.3.6 The role of workers

A few decades ago, skills learned after leaving school or college were thought to be for life long; however many workers who felt that their jobs were secure and their skills inviolable have found themselves unemployed, their education and level of training not adequate to help them cope with retraining needed today (Cummings,2005).

Workers' organisations traditionally focused on industrial relations issues, dealing with disputes wage processes, worker education programmes and maintaining membership.

However, many workers' organisations are coming to an understanding that maintaining the employability of their membership requires supporting life-long learning and continuous skill and knowledge acquisition, particularly for young people (Cummings, p.54).

Many individuals today invest in their own knowledge and skills in order to develop their career and assure continuing employability. However, young people often leave school with little knowledge of the importance of investing in their own future This brings us back full circle to the deficits in education system (Cumming, p.54)

2.3.7 Entrepreneurship and youth skills development

Entrepreneurs in the new agriculture need the skills and competencies to operate in open and demanding markets (Brewer, 2011). They need more and better market information and greater understanding of their costs and revenues, the required investments and the value chain they operate in preparing youth for successful entrepreneurship has become increasingly important, as self-employment is often the only opportunity when the private formal sector does not create enough jobs (Pieters, 2013).

There is little youth-specific research on self-employment, but evidence from Latin American and Caribbean countries showed that almost 13% of working youth is self-employed. Most of the young self-employed come from the poorest households and have at most incomplete secondary education (Pieters, p.20). They tend not to hire any

employees, thus only creating employment for themselves as owner of micro-firm (Llisterri, et al., 2006 cited in Pieters, 2013, p.20)

Policies that increase the permeability of education systems are also needed, to allow youth to move more easily between different levels and types of education.

In this case family background and choices and early tracking systems are major factors influencing education and training choices and careers (Pieters, 2013).

Youth entrepreneurship and self-employment promotion requires increased access to credit by strengthening financial infrastructure, bank competitions and nonbank financing. Also required is the promotion of youth micro-entrepreneurship and more consistency in enforcement of business regulation, in order to reduce the red tape and increase transparency (ILO, 2012b cited by (Pieters, p.25).

Opportunities exist for ATVET to systematically support entrepreneurial activity among small-scale producers themselves, by providing basic business and management training not traditionally incorporated into ATVET programmes (Vandenbosch, 2006). The most effective entrepreneurship training combines “core” business administration skills such as accounting, with softer entrepreneurship skills, such as problem solving. Training also needs support services such as coaching, mentoring and financing. Also needed is networks linking with higher levels of value chains (Pieters, p.25).

Entrepreneurship is an unlikely route for most young people starting out as experience is generally needed to succeed in business (Altman, 2007). Hence (Meyer, 2005) argued that entrepreneurship development must be prioritise from as early as possible in order to create awareness regarding self-employment opportunities and that schools and universities business chambers and government should be involved.

In a creative move, Raizcorp company a for-profit business and investor has not only improve the curriculum but it also addressing the physical layout of the school and the manner in which teachers teach all in the name of entrepreneurship (Monama, 2017). Understanding and addressing the unique academic and entrepreneurial potential of each and every people is ensured at Raiz. Raiz wanted to create the next generation of entrepreneurs, and those with entrepreneurial mindset. It is known that South Africa has the lowest rates of entrepreneurship in the developing world (Monama, p. 21).

The apartheid past reduced the culture of entrepreneurship making young Africans unlikely to have grown up in households with business people who would have shaped their understanding of market opportunities their access in to networks and know-know (Altman, 2007). However through training of youth trainers founded in 2004 and Agriculture Organisation of the United Nation (FAO) training to young people using Junior Farmer Field and Life School (JFFLS) methodology can develop young people in agriculture. To date this methodology is used in Africa, Asia, and Middle East (FAO, 2005).

The JFFLS empowers disadvantaged and vulnerable rural youth by enhancing the participants' agricultural life and entrepreneurial skills through various topics including agro-ecosystem analysis(AESA) integrated pest management (IPM) agriculture as a business (e.g. entrepreneurship, marketing accounting and reporting) hygiene and sanitation, nutrition HIV/AIDS child labour prevention and personal development.

In all developing countries particularly low-income countries and least developed regions, livelihood, self-employed should be targeted as a different group than entrepreneurs. Measures to improve the situation of the most vulnerable groups of self-employed, such as the poor, women, and migrants, may take many forms from

capacity building and training, to social protection measures, through improved access to social services or to finance (Pieters, p.25). Well-designed interventions should be specifically targeted to their needs, integrating several of these components. Programmes need to address people's empowerment as a way to provide informal workers with tools for defending their interests and rights in the long term.

2.3.8 Sustainable development

Concerns about sustainability in agricultural systems centres on the need to develop technologies and practices that do not have adverse effects on the environmental goods and services, are accessible to and effective for farmers and lead to improvements in food productivity (Pretty, 2007). Therefore a key driver to the concept of sustainable development is to develop a human-centred response to globalisation that is based on principles of environmental, economic and social sustainability (Tikly, 2013 cited in Rasool and Mahembe, 2014 p.13).

The sustainable development approach emphasizes the purpose of TVET as the provision of skills to support economic, social and environmental sustainability. TVET can also include development of skills for cultural industries which can respect and value indigenous knowledge and support sustainable livelihoods (Rassol and Mahembe, 2014). According to UNESCO (2012) TVET can help to overcome disadvantages, achieving social as well as economic goals.

This can be done through adapting TVET teaching and learning so that they have a positive impact on social inclusion, social cohesion and health wellbeing. This also includes development of skills for industries which can respect value indigenous knowledge and support sustainable livelihoods (Rasool and Mahembe, 2014).

However, follow-up activities are a key to sustainable learning outcomes. The lack of follow-up training session, the absence of reading material and other communication tools (local radio, campaigns, documents written in local language) has a negative impact on the outcome of literacy classes and other training events (Hartl, 2009).

Training programmes for poor have always been initiated by donors. A separate projects and programmes with their own funding and management structures they have rarely been effectively institutionalised on sustainable basis. There is low support in the follow-up to the training (Hartl, p.17).

If training was not based on the needs of students, outcome is further jeopardised: this is true to. The case of the Sustainable Livelihoods Regeneration Project (GSLRP) in Sudan which showed that the improved fodder intervention should have been implemented following a participatory demonstration approach to ensure that women trained would be able to use the skills (Hartl, p.17).

In sustainable agricultural practices the students are demonstrating an understanding of the dynamic nature of Agricultural knowledge and the appropriate technology, interpreting and applying this knowledge of agricultural management practices and systems to ensure a sustainable Agricultural environment (RSA, 2006) the students therefore:

- Understand and explain the origin of the soils forming and their importance;
- Know and distinguish between the different plant groups in South Africa.

and their nutritional, reproductive and protection components:

- Identify and describe selected ecological regions in the world and the impact on production;

- Know and distinguish between the different animal groupings and breeds in South Africa, and the main areas of production know and describe different veldt types and their impact on agricultural production;
- Investigate and explain sustainable use of agricultural resources to obtain optimum production using different Agricultural systems;
- Recognise and analyse a sustainable agricultural enterprise where the system and management do not impact negatively on the environment;
- Categorise, describe, analyse and interpret how agricultural knowledge is contested in different contexts;
- Understand and apply appropriate technology to specific agricultural practices;
- Select and develop own entrepreneurial skills and explain how they will continue to the socio-economic environment (RSA, 2006.p.14).

Achieving sustainability implies stronger links between projects and national policies and strategies. The Vocational Training and Agricultural Productivity Improvement Programme (Madagascar) (FORMAPROD) project in Madagascar tended to go in this direction by reinforcing capacities of the skills development actors and creating research instruments that will support the National Council for Agricultural and Rural Training.(IFAD,2011).

These objectives clearly demonstrate a willingness to better include the project within the national framework, but it might prove difficult to achieve these objectives in the current context of political instability

2.3.9 Purpose of the VET colleges

The National Skills Development Strategy 3 (NSDS 3) released in January (2011) aims at improved placement of learners and graduates and put a particular emphasis on skills development in support of the state's rural development goals and objectives.

With regard to emphasis on rural development the NSDS 3 acknowledges that the historical emphasis has been on urban economic development and intends giving greater focus on production of skills for rural development (Jacobs and Hart 2012).

A defining feature of the TVET sector until 2006 with the promulgation of the FET Colleges Act of 2006 was that it reflected a strong general and technical education divide.

The focus was mainly on apprenticeship training up to establishment of SETAs in 2000 when there was a sharp decline in apprenticeships (Rasool and Mahembe, 2014). This Act envisaged a considerably broad role for TVET Colleges which includes enabling students to acquire the necessary knowledge; practical skills, and applied vocational and occupational competence; and provide students with the necessary attributes required for employment, entry to a particular vocation, occupation or trade, or entry into a higher education institution (Rasool and Mahembe, p.35).

This is reflective of the global divisions of TVET within the United Nations (UN) system whereby UNESCO's focus centred on education while the ILO focused on training at workplace by stressing the concept of decent work and welfare of workers as global demand to be satisfied (UNESCO, 2005 p.7. cited in Rasool and Mahembe, p.35).

To achieve this there is a need to distinguish between the training of rural people who largely tend to migrate to urban areas with acquired skills) and the training of in or provision skills to rural people for rural development (NSDS 3, 2011).

According to Green Paper for Post-School Education and Training (2012) the purpose of the TVET College sector is located within a vision for a single, coherent, differentiated and highly articulated post-school education and training system. The PSET system is supposed to contribute to overcoming the structural challenges facing our society by expanding access to education and training opportunities and increasing equity as well as achieving high levels of excellence and innovation (Rasool and Mahembe,p.36).

An important strategic shift proposed by the Green Paper (2012) is to rename the FET colleges Vocational Education and Training Colleges. According the Green Paper (2012, p.21cited in Rasool and Mahembe, p.36) the vision for the public FET colleges is one of vibrant institutions that offer vocational and occupational qualifications, mainly to young people.

They will be the primary sites for vocational skills development for artisans and other occupations at a similar level in areas such as engineering, constructions, tourism and early childhood.

Vocational education is defined as middle level education which provides knowledge and skills to enter the economy while the occupational education refers to educational programmes that are focused on preparation for specific occupations as well as on-going professional development and training in the workplace (Rasool and Mahembe,p.37).The broad vision of the National Development Plan (2012) New Growth Path (2011) Industrial Policy Action 2 (2011) and Human Resource

Development Strategy for South Africa 2010-2030 (2009) collective articulates the need for the TVET College sector to contribute effectively to national social and economic goals of inclusive growth (Rasool and Mahembe, p.37).

There is a disjuncture between the Green Paper (2012) which does not want TVET colleges all things to all possible learners' and other government policy documents which would want the purpose of TVET sector to be broadened to include national social and economic goals such as economic growth, and development poverty reduction employment creation and sustainable livelihoods and industrial advancement by providing high quality education and training programmes in the democratic development state (Rasool and Mahembe,p.37).

Therefore the TVET colleges are face with a challenge to provide access to high quality technical vocational education for all without losing sight of the TVET's special relationship with the worlds-of-work (McGrath 2012, p. 267 cited by Rasool and Mahembe, 2014, p.37).

On an operational level, South Africa needs to customize the best practices from the Singapore, Korea, and Germany models into a new TVET model. This model should take into account the South African economic development phases, social economic development challenges and learner and community expectations. Therefore TVET College sector is an important instrument for the developmental state (Rasool and Mahembe, p.39) to:

- Improve graduate access to socially and economically rewarding jobs;
- Reduce poverty;
- Redress racial income equality;

- Promote decent work;
- Re-train of retrenched workers;
- Inculcate good citizenship;
- Develop small business;
- Secure-to-work transitions for NEET and dropouts;
- Develop skills for the poor, vulnerable, historically disadvantaged and marginalised to sustainable livelihoods.

From historical perspective TVET Colleges in South Africa were intended for the training of a skilled white working class (Wedekind, 2010). It was linked to the development of mining, railways, harbours and small engineering workshops in urban centres (Rasool and Mahembe, 2014) and was closely tied to the process of industrialisation and economic development and therefore TVET policies have been dominated by an economic and equity perspectives (UNESCO,2012 cited in (Rasool and Mahembe, p.5).

The evolution of TVET systems and transformation over the years has been based on perceived role of TVET in relation to economic or human development (Tikly, 2013).Theoretical contestations on the role of TVET ranges from the productivity or economic approach, which is based on neo-liberal assumptions that training leads to productivity which in turn leads to economic growth (training for growth).

The other assumption is that skills lead to employability, which in turn leads to jobs (skills for jobs) (Rasool and Mahembe, 2014). Furthermore recent theories like the capabilities approach see the TVET as an opportunity for supporting the development of a range of capabilities that are conceived as opportunities to develop functions that individuals, their communities and society at large have reason to value.

On the back of the theoretical contestations the literature revealed how other development states have used the theoretical underpinning to develop their TVET policies. The results were that countries like Korea, Singapore, Germany and India the success of the TVET system is based on the involvement of the government in ensuring that the purpose of the TVET systems is reformed in line with the phases of the country's economic development (Rasool and Mahembe, 2014).

Another theoretical discussion on the purpose of TVET is the human capital approach which has its roots in the industrial revolution and philosophy of productivism (Anderson cited in Rasool and Mahembe 2014, p12).

According to this approach TVET was perceived to have a fundamentally instrumental function in providing the necessary human capital required by industry (Tikly, 2013).

Proponents of this approach contend the purpose of the TVET system should be mainly economic productivity, and that the system should be focused on skills development for employability by preparing graduates more directly to meet labour force requirements.

The development of job-related skills is therefore not only part of the TVET College sector's purpose but also employment creation, poverty reduction, socio-economic equality and inclusive economic growth as part of a multi-pronged strategy. The idea is not to underplay the economic rationale of TVET provision, but rather to highlight the need for colleges to describe to a broader developmental agenda beyond the rigidly narrow economic development approach.

UNESCO (2012) offers further clarification by defining human TVET provisioning as demand-driven and its curriculum as competency-based. It is further emphasised that competency-based training pays more attention to learners and their ability to master

practical tasks and acquire competences than to the level of certification or the length of training. It is developed in accordance with identified skills needs derived from workplace (Rasool and Mahembe, 2014).

It can be concluded that success with vocational education is built on the understanding that each stage of development requires a TVET approach that prepares the country for the next stage of its developmental path. According to Ojo and Edem (1998) cited in Osam 2013, p.8) the three main goals of vocational education are:

- meeting society's need for workers;
- increasing individuals' options related to work, and
- conveying knowledge and /or the relevance of general education in work.

The role of TVET has been pronounced in the following countries:

In **India**, VET programmes have been introduced for the creation of employment opportunities and imparting suitable skills for self-employment particularly in the rural areas and unorganized sectors. Recent employment and unemployment survey show about 2% of the population are reported to have received formal vocational training and another 8% are reported to have received non-formal vocational training and by 2006 the capacity in the VET programmes was 3.1million students per year (Agrawal, 2013 cited in Rasool and Mahembe 2014, p.18). This has been topped up by training (formal and non-formal) and the up-skilling target set by the government for the next 2022 years (Rasool and Mahembe, 2014). India has also been boosted by the increasing and successful development of agricultural value chains.

In **Korea** TVET is at a massive scale in the secondary and post-secondary schools which paid off by making sure that industries get people they needed (Lewis,

2009).The Korean government responded to the decline by reforming the sector; the created new forms of vocationalism that were consistent with new forms of work, with increasing focus on knowledge and life-long learning and the skills needed by technical workers (Rasool and Mahembe, 2014).

The success of the Korean TVET system is credited to a thorough curriculum, strong school-industry cooperation including internships, industry based training for faculty members education for mid-career employees, joint college/industry research programme information exchange the active work of industry/college cooperation committees and curriculum development at the industries' request (Rasool and Mahembe, p.19).

As a results college graduates are highly valued with employment rate of 18.1 to 25.5% higher than a four-year graduate from the university (Lewis, 2009 cited in Rasool and Mahembe, p.19).

Furthermore, TVET in **Korea** is concentrated on knowledge, lifelong learning and skills needed by technical workers. Theoretical contestations on the role of TVET ranges from (training for growth and skills for jobs).The success of the TVET is based on the involvement of the government in ensuring that the purpose of TVET is reformed in line with the phases of the country's economic development (Rasool and Mahembe, 2014).

Based on Asian experience (Korea and Singapore and Taiwan) it can be concluded that the success with vocational education is built on the understanding that each stage of its developmental path. Furthermore, to increase returns on investment, demand-driven approaches to vocationalisation needs to be developed relevant to the stage of economic development, the type of the economy and regional specifics.

The analysis revealed that in countries like Korea, and Singapore the success of the TVET system is based on the involvement of the government in ensuring that the purpose of the TVET the TVET systems is reformed in line with the phases of the country's economic development.

The theoretical perspective revealed that TVET was perceived to have fundamentally instrumental function in providing the necessary human capital required by industries (Tikly, 2013) which is skills development for employability by preparing graduates more directly to meet labour force requirements.

This can be achieved through partnership and collaborations with sectoral organisations, business associations, and chambers, employers association and the government department (UNESCO, 2012).

However, a recent study by HSRC (Hart et al.,2010a) indicated that the registered private higher education training providers, with agricultural programmes, are not in all provinces and are the majority is situated in the more urban and peri-urban provinces.

In **Singapore** TVET is described as a world class model (Seng, 2008 and Agrawal, 2013). TVET has been evolving from secondary schools based to post-secondary fully-fledged top line educational colleges and from serving the needs of the factor driven economy to current status of serving the needs of globalised and diversified economy. As a result, the employment rate of graduates was within the range of 90% in 2005 (Seng, 2008 cited in Rasool and Mahembe, 2014, p.8).

The Singapore post-secondary education landscape consist of Junior Colleges: Polytechnics and Colleges of Institute of Technical Education (ITE) which enrol a combined total of around 90%of the graduates from the ten year general education: universities. The Junior Colleges provide an academic high school education for the

top 25% of a school cohort for a university education: the next 40% of school leavers enter the Polytechnics for a wide range of practical-oriented three year Diploma courses in preparation for middle-level professions and management; and the lower 25% of a school cohort, in terms of academic abilities, are oriented towards vocational technical education in ITE Colleges (Rasool and Mahembe, 2014).

In the United States, school-to-work transition systems integrate career orientation, and academic and occupational orientation with high and post-secondary schooling, work based learning and skills development. These systems are developed through partnerships between schools, employers and trade unions and are decentralised at the community level (Cummings, 2005). Their major components are:

- school- based-learning:
 - teaching in high school that meets national standards;
 - career exploration and counselling;
 - initial selection of a career path by students;
 - instruction that includes both academic and occupational learning;
 - coordination between education and training;
 - constant evaluation of students' progress, personal goals and additional learning requirements
- Work-based-learning:
 - on-the-job training and work experience recognised and certified;
 - broad instruction in all aspects of industry;
 - workplace mentoring.

- Connecting activities:
 - activities to encourage employers and trade unions to participate in the system;
 - matching students with work-based learning opportunities;
 - assistance in integration between school-and work-based learning;
 - liaison amongst students, parents, employment offices and employers;
 - assistance to graduates in finding appropriate jobs or additional on-the-job training;
 - monitoring progress of participants;
 - linking youth development activities with employers and skills development strategies for young workers.

Source: ILO: Employment counselling and career guidance: A trainer's guide for employment service personnel (draft, unpublished).

According to Agrawal (2013) many students and parents prefer polytechnic because it is practice-oriented education and others prefer it because it has a wide range of programmes and courses offered in these institutes which lead directly to employment opportunities. Employers prefer high and semi-technical skills from technical and polytechnic education (Rasool and Mahembe, 2014 p.2).

In South Africa the Junior Colleges are equivalent to Matric National Senior Certification while the combination of Polytechnics and Colleges of ITE would be the current FET sector. South African students still prefer academic than practical education (Rasool and Mahembe, 2014 p. 21).

A review of the current policy pronouncements by government revealed a disjuncture between the Green Paper (2012) which asserts that TVET colleges should not be all

things to all possible learners' and other government policy documents which would want the purpose of TVET sector to be broadened (Rasool and Mahembe, 2014).

The thrust is for the sector to include national social and economic goals such as economic growth, poverty, reduction, employment creation unequal income distribution sustainable livelihoods, youth development, innovation and industrial advancement by providing high quality education and training programmes in the democratic development state (Rasool and Mahembe, 2014 p. 6)

Given South Africa is currently faced with challenges such as chronic unemployment, inequality and poverty; the paper argues that the South African TVET system needs to be strengthened in order to provide access to high quality technical vocational education for all (youth and adults) without losing sight of the TVET's special relationship with the worlds-of work (Rasool and Mahembe, 2014 p. 6).

To achieve the theoretical grounding of the South Africa TVET policy needs to shift from the human capability and sustainable development approaches. On an operational level, SA needs to customise the best practices from the Singapore Korea and Germany models into a new South Africa TVET model.

This model should take into account the South African economic development phases, social-economic development challenges and learner and community expectations (Rasool and Mahembe, 2014). Thus the paper call for a TVET system located in developmental state, aimed at helping learners secure sustainable livelihoods.

In the medium to long-term South Africa's developmental needs include economic growth, equity and transformation the system should link education provisioning to the developmental needs the country. It will be a TVET system located in democratic state. The purpose of such a TVET system is to create opportunities for youth and adults to

acquire skills, and knowledge. The curriculum needs to address the needs of the learners, industry and community or society (Rasool and Mahembe, 2014).

2.3.10 The system of Education and its Development

The system of vocational education should consist of education in vocational schools and vocational training (Anon., 2008). This can be possible if education is provided at three levels:

- Junior secondary schools which will train workers, peasants and employees in other sectors with basic professional knowledge and certain professional skills;
- junior vocational education which should graduate students for equivalent cultural knowledge;
- Secondary level which mainly refers to the vocational education in senior high schools.

To meet the needs of the labour workforce these must be built in rural areas where the economy is less developed (Anon., p.179).

Secondary vocational education institutions produced 50 million graduates, fostering millions secondary-level and primary-level technical workers, skill workers and other labourers with good vocational technical education. By 2001 the quality and level of Vocational Education increased: 3000 key and pilot vocational schools have been established, promoting the overall development of vocational education (Anon., p.179).

In many Western European nations the high education curriculum is differentiated for teenagers depending on whether they are headed to a liberal arts university, a technical college or into a workforce (Goldshtein, 2013). In the light of South Africa's

need for technical and artisan skills the country needs to develop the policy framework required to make focus schools an attractive option within the system of diversified education (Stumpf and Niebuhr, 2012). This is part of investigation and research in the FET Colleges during data collection.

It is for these reasons (Wiggins and Deshingkar, 2007) and the World Bank (2007) argued for more focused attention to vocational training schemes to respond to the needs of farm workers in the industrialised farming sectors.

Of late constructions are almost complete in three TVET Colleges' sites. One is Thabazimbi for Waterberg in Limpopo, Nkandla A in Nkandla Town and Bhambanana for Umfolozi; both in KwaZulu-Natal.

Surprising to note is that nothing stated in the literature about agriculture subjects/curriculum or skills development that can hold learners from urban-migration (Mommen, 2016). National Rural Training Service in Brazil has been cited as a success story of how public and private providers cooperate in the delivery of effective skills development programmes to rural youth.

Youth skills development and replacement is the emphasis and postulation of the theory's research. To achieve this South Africa has to cooperate with agricultural stakeholders (Emmy, 2015):

- **Include science in annual yearly progress assessment;** In order for young people to meet the demands for skilled and talented labour in the food and agricultural sector, they must be scientifically literate as tested nationwide in school assessment;

- **Ensure a food and agriculture- literature population;** A focus on food and agriculture literacy must begin in kindergarten and continue through high schools;
- A population of this calibre will ensure that the tomorrow's leaders are better prepared to make policy and legislative decisions that have a profound impact on the nation's food sources;
- **Meet tomorrow's workforce demand;** with agriculture-related industries' job growth on the rise, policies programmes, and practices need to be in place to support innovative ways of filling these jobs with talent that is academically and scientifically prepared to deliver in the workplace development;
- **barriers to innovation and success;** New entrants in into farming and ranching should have incentives to pursue these jobs as part of meeting the future demand of food;
- Barriers need to be lifted and new systems streamlined to facilitate production, processing, manufacturing and distribution of food and ag products and out puts from other rural industries;
- **Support strong tax policies;** continue to preserve and protect farmland and ranch through tax policies as this assist farming and ranching families to transition their properties will ensure that farming traditions, productivity and on the ground innovation are not compromised or lost;
- **Focus on rural economic development and infrastructure;** coherent and comprehensive legislation and policies are needed to ensure that rural communities and their inhabitants have the means, abilities and infrastructure;
- to innovate, grow employment, and support South Africa food and agriculture system

- **Expand** the outreach of both schools and training institutions in underserved rural areas.

The poor state of education system plays a role in unemployment, with regard to youth and unskilled e.g. the unemployment rate for youths without grade 12 is three times higher than for people who completed grade 12 (CDE, 2012). This has put South Africa towards being a welfare state (Meyer, 2013).

2.4 Problems faced by FET colleges in rural areas

While a handful of agricultural schools remain islands of excellence such as Bolland Landbouskool in the Western Cape, Marlow near Cradock in the Eastern Cape and Western Agricultural College in Mooi River in KwaZulu-Natal, others are on a downward trend.

Performance is below par because agricultural education has become superfluous. It doesn't teach agriculture as a science and isn't aimed at training artisans (Joubert, 2005). A recurring issue with agricultural schools difficulty is sourcing qualified young staff equipped to teach agricultural science, management and technology.

The education department does not have in-depth knowledge of agriculture and while the agriculture department schools and FET colleges are feeding people into the industry, it doesn't understand educational needs.

Agricultural schools are expensive, incurring additional costs such as vehicle maintenance and repairs, fertilisers, infrastructure and machinery livestock and feed (Karaan cited in Joubert, 2005 p.3). Both departments need to work together. Wiggins

and Deshingkar (2007) argue for more focused attention to vocational training schemes to respond to the needs of farm workers in the industrialised farming sectors.

The Servicio Nacional de Aprendizaje Rural-National Rural Training Service (SENAR) in Brazil has been cited as a success story of how public and private providers cooperate in the delivery of effective skills development programmes to rural youth (Jacobs and Hart, 2012). Despite the efforts made, this sector faces huge challenges.

FET Colleges are often regarded as 'second choice schools'. This shows in a rather low number of students (in 2007 a mere 2.3% of all students attended FET Colleges) moreover, these schools have high drop-out and low completion rates. This is attributed to inadequate basic pedagogical and methodological skills and limited technical skills. (VV)B, 2011-13).

Because of this, the quality of the education at public FET Colleges is below standard. At macro as well as at meso-level where organisation in any sector needs for certain skills to operate effectively and micro level there is a lack of effective and relevant systems and there is no wide range of further vocational training. This means that the capacity of an individual is never assessed to determine the readiness to perform a certain function (van Rensburg, 2014).

An analysis performed by the agricultural Sector Education Training Authority (Agri-SETA) in 2010 identified a range of scarce skills in agriculture. It was found that farmers lacked skills in a host of areas: farm management and entrepreneurship, resource management and record keeping, financial planning and marketing processing and packing, transport, natural resources management, and mechanical and electrical knowledge (Joubert, 2005).

In the commercial sector critical constraint identified was the poor educational levels of a large proportion of labour force, which demanded a considerable investment in adult basic education and training and other life-skills programmes (Joubert, 2005). Based on this context (VVOB, 2011-13) decided to start a programme that meets the above challenges in the FET Colleges. The programme's intention is to improve results of students of the FET College and to enhance their chances on the labour market.

The provisional results focus on the partners:

- Results 1: the South African Council for Educators (SACE) as the promoter and coordinator of the Colleges teachers' continuing vocational training has been reinforced. SACE is the semi-governmental institution that has the official mandate to coordinate and regulate the teachers' educational counseling from a national level;
- Result 2: a forum for the reinforcement of the FET Colleges staff's knowledge and skills is functional and meets the professional development needs of its teachers;
- Results 3: The University of the Free State (School Open Learning) offers trainings and education developed specific ally to meet the professional development needs of the FET Colleges' teachers.

2.4.1 Poor state of colleges

South Africa has 10 FET colleges offering vocationally directed programmes and 11 agriculture colleges that offer qualifications up to degree level (Agri-SETA. 2010). Although the government allocated R157,8 million in 2010 to improve the state

of agriculture colleges are generally poor. Potchefstroom, Landbou and Glen agriculture colleges are struggling.

The same applies to the entire FET system (Joubert, 2005). Colleges should be more closely linked to agriculture, industries and universities. Many teachers have little practical or industrial experience so they can't transfer this to students. Joubert (2005, p.4) explained that there is too big a divide between the agriculture value chain and education and training.

In most instances students get degrees but they don't get training until they're placed (Joubert, 2013). Compare this to German system where the technical high schools and universities turn out artisans. South Africa can benefit from introducing learnership and apprenticeships on a much bigger scale. The FET sector also uses the same curricula for colleges in both rural and urban settings but conditions in rural areas are different. For instance a few industries are situated in these areas resulting in unemployment and/ the migration of youth to urban areas (van Wyk, 2010).

Long distances between campuses and a lack of employment opportunities in the rural areas suggest that it is difficult to manage rural colleges in the same manner as urban colleges. FET colleges have experience some mergers since 1998 the introduction of new governance structures, curriculum changes, relationship changes with both communities and the business sector and the introduction of new funding formulae.

Lack of infrastructure, poverty, poorly resourced campuses, high turnover of staff, limited course offerings, lack of policies and lack of financial assistance for disadvantaged students are key challenges faced in the rural areas. Students are faced with poverty, lack of infrastructure, unemployment, and transport (van Wyk, 2010).

A recent study of the employment and learning pathways of learnership participants indicates that weakness in the FET and learnership system include

- insufficient practical experience as many FET colleges do not have the necessary facilities;
- partnerships between the public and private sector are weak or non-existent constraining learners from getting on to job training; and
- the distance from residence to institution.

Most learnership qualifications, registered with SAQA are done through private higher education institutions and Further Education and Training (FET) colleges. A recent study by (HSRC Hart et al. 2010a cited by Jacobs and Hart 2012, p.17), indicated that of the registered private higher education training providers with agricultural programmes one third were located in Gauteng and quarter each in KwaZulu-Natal and the Western Cape with only 3% and 2% respectively in the Eastern Cape and Mpumalanga. The other provinces have no representation that the major of these colleges are situated in the more urban and peri-urban provinces (Jacobs and Hart 2012).

Due to short-term and contractual nature of providing services on behalf of Sector Education and Training Authorities (SET's) or the National Skills Fund (NSF) some training providers do not bother to establish even a medium term presence in South Africa's more remote areas and shift from one area to the next as contracts are awarded. As a result of this behaviour short term contracts are seen to discourage sustained capacity building in these areas

This situation undermines rural development, as there is no consistent service provider with links to opportunities in the local economy that could provide learnerships for

students (Jacobs and Hart 2012). The literature reveals that weakness in the FET and learnership system include insufficient practical experience as many FET colleges do not have the necessary facilities, partnerships between the public and private sector are weak or non-existent constraining learners from getting on-the-job training, and the great distances from residence to institution. This leads to inaccessibility by women to the institutions.

A perception is that the private and industry linked FET colleges provide more superior and accepted qualifications than of the public sector colleges (Hart, et al. 2010a). The Green Paper for Post-School Education and Training (2012) labours the point of promoting growth of strong partnerships between FET Colleges and employers.

However it forewarns that the possibility of partnerships between public and private institutions should be explored within a clearly defined regulatory framework that sets out the parameters for operation. It is the contention of this paper that is lacking in the FET College partnership discourse (Tikly, 2013).

Generally the most common reason for college-industry partnerships is the need to ensure that the curriculum of FET Colleges is aligned to the needs of the workplace to ensure a smooth transition from college-to-work.

2.5. Implications for the promotion of job creation skills

Implications means conclusions about something though not directly stated or something suggested without being said directly and take decisions for improvements. The literature review suggested areas in need of further study, made recommendations on appropriate modeling framework to inform questions on the form Agriculture Vocational Education programme and the promotion of job creation skills in the FET Colleges (Blignaut, De Wit, Knot, Midgley, Crookes, Drimie and Nkambule, 2014).

South Africa is a signatory to the 1995 Copenhagen Declaration which emerged from the United Nations World Summit on Social Development. In terms of these Declaration signatories undertook to develop country specific measures of poverty by 1996 (Gwanya, 2013).

South Africa also has obligations in terms of the United Nations Millennium Development Goals to halve poverty and unemployment by 2015. South Africa committed to reaching these goals by 2014. (Gwanya, p.9). The Johannesburg Plan of Implementation (JPOI) arising from the World Summit on Sustainable Development in 2002 called for the building of rural infrastructure, diversifying the rural economy and improving transportation and access to market information and credit to support sustainable agriculture and rural development (Gwanya, p.9).

However, these international agreements do not bind countries to direct resources to rural areas and there is no punitive measure for non-compliance.

Despite the signing of international conventions and the development of sectoral rural focused programmes, rural areas remain underdeveloped due to the following reasons outlined by (Gwanya, p. 9):

- A lack of a common definition of rural development;
- Budget for and planning of these programmes cut across the different government departments;
- Rural development is a cross cutting programme that calls for partnership with multi stakeholders both within and outside government.

Very few of these programmes especially the service delivery programmes have fully decentralised service points. Jobs are the cornerstone of the economic and social development (World Bank, 2013) since 2011, in the last three State of the Nation

Addresses (SONA).The impact of the higher levels of unemployment is devastating, resulting in poverty, social exclusion, inequality, crime and social instability.

The creation of jobs has been a challenge globally but especially in South Africa. It has escalated to a new peak of 25.2% (Stats SA, 2013), compared to a global average of 9.2 % in 2013 (CIA World Fact Book, 2013 cited in Meyer, 2005:1). In terms of the Millennium Development Goals (MDG) (UNDP, 2010) all the eight goals could be related to developing countries and the development of strategies for creation of decent jobs and productive work opportunities.

As with most economic concepts unemployment and job creation could be explained by supply and demand. Unemployment is the situation where the supply of labour exceeds its demand. Of the two economic evils inflation and unemployment the latter has the most devastating impact on the society.

Research has indicated that education skills training health services access to opportunities and transport have a positive impact on economic development and employment (Kooros, 2008 cited in (Meyer, 2005, p.2). Jobs are created by private sector within enabling environments created by governments.

Government policy should be on three pillars (Meyer, 2005):

- the provision of the foundation or fundamentals such as a macro-economic stability, rule of law and human capital development;
- the formulation and implementation of acceptable labour regulations; and
- setting of developmental priorities.

Education, skills development and technical training are central to agricultural production and rural employment in Africa. Recent trends in African agricultural growth

are positive. Sustaining these trends depends not only on direct factors that affect agricultural productivity but on institutional capacity to design and implement programmes and policies and on human capacity building on the producer side (NEPAD, 2013).

Training in agriculture in Africa is not up-to date and inappropriate to current conditions. This is true for rural areas where ATVET could have a significant impact on the lives of the poor by enhancing agricultural skills productivity. However the limited enrolment of the training institutions excludes a wide portion of the young population from vocational education and training limits their chances of finding employment in agriculture (NEPAD, 2013).

International companies and global consumers are interested in the participation of small scale farmers into national, regional and global market.

Yet the need to participate in international value chains goes along with tremendous demand for advanced skills and professionalism (NEPAD, 2013). Considering the existing ATVET problem in African countries comprehensive solutions will be needed to develop ATVET into a demand driven system combining education, training, knowledge development and skills-enhancing techniques within the countries' general ATVET systems and bringing together public and private players.

2.6 Fast tracking youth unemployment model

Figure 3: Typology of TVET that correlates with stage of economic development.

The Integrated system of rural skills development (Adapted)

Education policy

Access to training: TVET's and Universities

Training of youth
trainers. Government
and private sectors
:funding

Youth involvement in
decision- making

Motivation, Agric.
Science.

Primary and
secondary schools

Changes in the country's TVET system

Agriculture –Product --- Value chain---Businesses Source: UCS illustration from Asian Development Bank (2008) and Lewis (2009).

A model is a strategy designed to achieve a long term plan or the scientific activity which is aimed at easing the feature or understand the feature of the world easier. Agriculture yields positive results at macro level. According to Lewis the above illustrated typology can help developing countries to structure their TVET systems in line with each stage of their economic developmental stage (Rasool and Mahembe, 2014).

Skills development strategy for improvement is a challenge to make the national development strategy which is currently managed by (SETA) Sector Education and Training Authority work more effectively to support a more competitive business sector efficient state. Unfortunately, the SETA's are not delivering the promised mandate of the government (Ramdass, 2007).

Employment policies, strategies, and national action plan are avenues to address micro and macroeconomic factors impacting youth employment (ILO, 2005).

The national events served as platforms to share their results and announce future plans to develop them. Though it is untellable at micro levels but the following ways and means can change the history of agriculture in South Africa (micro level)

2.6.1 Helping out primary and secondary schools (HOOPSS)

There is a need to integrate agriculture into schooling at young age and integrate with relevant business and marketing skills In St. Lucia, the Helping Out Our Primary and Secondary Schools (HOOPSS) project is actively exposing schoolchildren to agriculture as a way of opening up opportunities for the future, and helping to combat food insecurity and import costs. More than a dozen schools are learning how to grow crops using sustainable food production practices (UNDP and IPU, 2012).

The importance of providing up-to-date relevant and practical courses at universities, particularly those in developing countries on agricultural subjects is essential in fighting poverty achieving food security and implementing effective climate change adaptation practices (UNDP and IPU, 2012).

Combining theoretical and practical approaches, young people are encouraged to see their farming activity as enterprise. The office of the International Institute for Cooperation in Agriculture (IICA) creates school garden, and teaches children techniques such as organic fertilizer, use and rainwater harvesting.

In order to boost local food security and nutrition, produce grown by schoolchildren goes into primary school feeding programme, in an effort to tackle rising levels of hypertension, diabetes and obesity. Fruit and vegetables from the school farms are

also sold to restaurants, hotels and local supermarkets. Links between school farms and the private sector help to generate an income, ensuring sustainability for the ventures. Surely there are ways in which job creation skills and unemployment can be reduced in South Africa these ways only need support and enhancement.

2.6.2 Motivating youth to remain in rural areas to build viable livelihoods

In most transition countries farming is not considered a real profession. This leads to a negative image of agriculture and to the perception that people become farmers because were not able to do anything else. This can have a negative impact on the resources allocated to agriculture and on national strategies in support of the sector.

A negative image will eventually further encourage potentially successful farmers to abandon the activity (FAO, 2006) MIJARC (International Movement of Rural and Agriculture Catholic Youth) gathered more than 1million of youth in Asia, Africa, Latin America and West Indies, Europe. MIJARC in rural areas capacitate youth to become critical actors and transform their communities and countries by:

- creating youth-led peer groups in rural villages where young people can share their experiences;
- following a methodology of see-judge-act which includes looking at each experience and analysing it to come up with solutions;
- develop capacity in life skills such as how to work in a group, organise, planning; manage, and budget conduct research and take democratic decisions. This will create a sense of personal accountability in youth as postulated in Afrika Tikkun's (2005) theory of the study.

Motivating youth to view agriculture as a career opportunity requires a multi-level intervention. Firstly there must be awareness and counseling sessions at the school level. Thereafter those seeking jobs and looking for good life-need to be lured and sensitized (Rodger, 2005).

This can be done in the following methods:

- Integrate into Curricula-Agriculture is virtually absent from the curriculum, at all levels of education;

The current mode of education is geared towards educating white-collar workers, most of whom are not aware from where their food grains come.

- Arousing interest- Agriculture broad based inclusion with the appropriate resources is the need of the hour to motivate youth to have a favourable view of the employment opportunities in the agricultural sector;
- Tapping into interests-Creation of on-going initiatives to support youth in agricultural based enterprises, and existence of opportunities to showcase their success will attract more young people.

Today youth is savvier with better communication technologies such as internet, computers, mobile phones and global positioning systems.

This can be used to their advantage in getting information about their interests in agriculture (Rodger, 2005). Given a support and opportunity, youth have the potential to play a significant role in rural development. This would not only make their own life richer and more fulfilling but would have a positive impact on the economic health of the nation.

2.6.3 Agricultural science for learners

Encouraging learners in agriculture will help them (OECD, 2006):

- Develop an awareness of national priorities such as food security and sustainability;
- Develop awareness of the management and care of the environment, natural resources and human treatment of animals;
- Develop problem solving mechanisms within the context of agricultural production, process and marketing practices;
- Beware of the social and economic development of the society at large through personal development in commercial and subsistence farming;
- Becoming informed and responsible citizens in the production of agricultural commodities;
- Beware of agricultural indigenous knowledge and practices through understanding agricultural science in historical and social context;
- Develop awareness, gender quality and other imbalances that exist in agricultural industry encouraging meaningful participation of female;
- Develop social and personal skills through understanding ethical and responsible agricultural practices in the production and processing of food;
- Acquire values through having access to and the opportunity to succeed in lifelong education and training.

Agricultural professionals and researchers are needed in the new agriculture. But the education and training are not up to this task as a result Sub-Saharan Africa's human resource pool is severely depleted (Brewer, 2011). Therefore aims of agriculture in competences are: to investigate and analyse sustainable agricultural practices,

indigenous agricultural knowledge and historical development and interrelated issues in agriculture (SAQA, 2003 cited in OECD, 2006 p.13).

2.6.4 Partnership to promote decent employment for rural youth

Since the advent of democracy there has been a proliferation of policy outline that make constant referral to South Africa as a developmental state and the solutions to its structural problems as contained within that ideological paradigm. However the Green Paper for Post-School Education and Training (2012) labours the point of promoting the growth of strong partnerships between FET Colleges and employers.

The Green Paper specifically forewarns that the possibility of partnerships between public and private institutions should be explored within clearly defined regulatory framework that sets out the parameters for operation (Rose-Innes, 2005, p.4).

The most reason advanced for college-industry partnerships is the need to ensure that the curriculum of FET Colleges is aligned to the needs of the workplace to ensure a smooth transition from college-to-work. The need to create working partnerships between FET Colleges and stakeholders, particularly industry is borne out of the intention to make FET Colleges responsive to the needs of stakeholders not exclusively the labour market (Rose-Innes, p.5). As government configures the PSET sector it is necessary to ensure that the FET Colleges make a meaningful contribution to addressing national socio-economic goals (Rose-Innes, 2005).

Effective partnership should be central to the government of South Africa strategy on youth development. Engagements with private sectors and civil societies at all levels ensure a unified and coherent approach to creating decent employment opportunities for rural youth (FAO 2013). Partnership between FAO and ILO at regional and national

levels with stakeholders is centred to promote enabling environment that is more conducive for the needs of rural youth.

Another level is to develop DHET staff responsible for promoting and supporting FET College partnerships. Strengthening the DHET's capacity to provide mechanisms and oversight for partnership development monitoring and evaluation is a necessity.

At community level FAO is empowering vulnerable rural youth representative organisations so that they are equipped to seize available opportunities.

FAO is also supporting youth inclusion in the Comprehensive Africa Agriculture Development Programme (CAADP) which serves as a policy framework for many Africa's agriculture based economies (FAO, 2013).

To this statement is the value- chain conceived by Organisation of agriculture as one of the strategies to bring more efficiency in the agricultural sector (Kumar, Singh, Kumar and Mitta, 2011) define value chain as a range of activities that are required to bring a product from its conception, through its designing, sourcing of raw materials and intermediate inputs, marketing and distributing, to final consumer. Trienekens (2011) sees value chain as a vehicle by which new forms of production, technologies, logistics, labour processes and organisational relations and networks are introduced Value chains in South Africa will need research development in all different agricultural crops in the farms.

2.6.5 Youth inclusion in decisions concerning them

Youth inclusion in decision making is seen as a creative force, and a dynamic innovation. The greater the benefit is to both themselves and the society(UNDP and IPU 2012).The Young Professionals for Agricultural Development (YPARD) have fresh

ideas to a strong grasp of emerging trends and are up for the challenge of trying to new approaches. Young people must be instrumental in creating their own future. This is possible through networking. YPARD is just a network (FAO, 2005).

In Northern Benin, most young farmers work in field of agriculture growing vegetables, youth is empowered to innovative solutions related to climate change variations that disturb the agricultural calendar. This situation is a challenge in South Africa which lacks knowledge in agriculture.

Within JAC Benin (national MIJARC group) youth develop new skills to implement other less rain dependent, income–generating activities like poultry, sheep and goat breeding.(FAO,2005).

These alternatives show the extent agriculture can accommodate youth other than crop growing. Fast tracking through understanding current methods in order to identify innovations and improvements will help this country. IFAD-UNESCO research project aimed at deepening the understanding of how teaching and learning for agriculture and rural livelihoods takes place in rural communities and the kind of knowledge and skills are communicated to rural youth.

The findings in the project highlighted the importance of outside learning, formal institutions such as informal learning from parents and peers, for rural youth to acquire traditional and new knowledge and skills needed for strengthened linkages between informal, non-formal and formal learning as part of lifelong learning.

2.6.6 Training of youth trainers

Workplace learning through multi-skilled teams, is likely to be more effective if higher skilled and/or experienced team members have some knowledge of how learning takes

place and can structure and allocate tasks so as to maximise learning opportunities, a process analogous to the difference between formal and informal (traditional) apprenticeship (Cummings, 2005) .

To be successful, vocational and skills and training have to take into consideration the characteristics of national and local labour markets and employability which is commonly defined as combination of assets and competence. Enhancing the employability of deprived youth and rural poor, women in particular is a prerequisite for mitigating the risk of further poverty and marginalisation (Hartl, 2009).

Palmer (2007) emphasised the need to take a balanced approach to funding education and training across all main sub-sectors, in order to create the skills-mixed needed for sustainable growth. A supportive economic and labour market environment is a key factor and requires design of more poor informal economic strategy (Hartl, 2011)

Vocational training rarely reached the rural population and was urban based even in the field of agriculture, thus attracting students often not really interested in agriculture or rural development (Hartl, 2009). Trainers often have little or no understanding of the specific problems of the rural poor or what it means to operate in the informal sector. Training providers are key to ensuring training quality. In extension training, there is usually a divide between government al and non-governmental agencies (IFAD, 2011).

The latter might be more cost-efficient than the former but drawbacks can include ownership, mainstreaming and sustainability because project activities may be isolated from the public system. The need for entrepreneurial culture in agricultural sector has been recognised in recent years. It must be recognised in South Africa's rural areas as well (Anderson, McElwer and Vesala, 2006).

National Institute for Entrepreneurship and small Business Development (NIESBUD) engaged in training, consultancy and research in order to promote entrepreneurship .It trains trainers, management, entrepreneurship development programmes and a cluster intervention. It has provided training to more than 943 625 in March 2016 from more than 130 countries globally (Gert, 2014). Entrepreneurship is then viewed as an option for generating sustainable livelihoods.

With their ability to adapt to changes and innovate, young people have the potential to drive tech-entrepreneurship and growth in rural areas (Brixiova, Ncube, and Bicaba, 2014).This is also in line with the Catalyzing Rural Leadership for accelerated dissemination of information project initiated in December 2012 at Bihar Agricultural University, Sabour, India (UNDP and IPU, 2012).

Youth leaders were selected from local regions with the help of farm sciences centres at district level. They were trained in various agricultural innovations in sub-sectors including mushroom cultivation, high-value floriculture and poultry. This benefited about 152 young women and men. It also helped in claiming loans from banks and overcoming illiteracy. The income generated resulted in better food security and nutrition for families.

New skills have to be relevant to job market needs. The informal sector to be poorly organised and usually lacks representative bodies that could express the sector's needs from the skilled workforce. Demand-driven training might mean analysing the market to assess training needs for delivering products and services rather than asking potentially non-existent employers (IFAD, 2011).

2.6.7 Understanding current methods in order to identify innovations and improvements

IFAD-UNESCO research project conducted in 2004 was aimed at deepening the understanding of teaching and learning for agriculture and rural livelihoods in rural Communities and the kind of knowledge and skills communicated to rural youth (CFS, 2013).

The research findings highlighted the importance of role played by learning outside formal institutions, such as informal learning from parents and peers for rural youth to acquire both traditional and new knowledge and skills and a need for strengthened linkages between informal and non-formal learning as part of lifelong learning.

2.6.8 Access to training and technology

The future of farming in Africa depends on attracting the talented youth to pursue agriculture as a professional vocation. This is possible if youth is afforded access to training and technology. As a response to this reality the Songhai Centre in Porto Novo in Benin was founded in 1985. It is a research and training ground for young African farmers to learn aquaculture and crop and livestock production (CFS and FAO JLIFAD 2013).

Even more importantly young people learn how to apply different dimensions of sustainable development to their own lives. This is skills development and replacement theory of Afrika Tikkun (2005) and will provide youth with more access opportunity that will develop them into participating economic players with aims of breaking the cycle of poverty in rural areas of South Africa.

2.6.9 Funding

Education is hindered when funds are not available for routine classrooms work, extra curriculum activities and other schools learning ventures. (Mkpa, 2009) argued that no good school can carry out its production functions with only students as its inputs while other inputs, namely human resources (staff) and capital resources (equipment), are deficient in terms of quality and quantity.

However, (Murphy, 2012) stated that the European Agricultural Fund for Rural Development (EAFRD) finances the rural development programmes of the Member States in the European Union. As part of the Common Agricultural Policy (C.A.P) there is funding for Measure 112 which is commonly called Installation Aid.

In order to qualify for Measure 112 farmers have to be:

- Less than 40 years of age;
- Set up for the first time an agricultural holding as the head of holding;
- Possess adequate occupational skills and competence;
- Submit a business plan for the development of the farming activities;

A maximum a farmer can receive under the programme is 70 000 Euros and France is the biggest user of measure 112. The requirements in the Measure will match young farmers needed in South Africa for job creation skills. Enhancement in agriculture and technology needs funds. Senegalese in Dakar created an ICT name SOORETUL by which urban demand is met by rural supply and consumers have access to the agricultural production in their own country (CFS and FAO JLIFAD 2013).

The processing of local products is dominated by women who live in rural areas. They do not have access to funding to set up shops or to be able to use internet to promote their products. It is in this context that an e-commerce platform had been created to sell agricultural products and to give visibility to these products thus allowing Senegalese consumption of local production increasing agricultural production. Over 500 youth profited from this project (CFS and FAO JLIFAD. 2013).

Though it can be seen as a drop in ocean to fast track the needs of agriculture in South Africa, this can provide jobs to unemployed South African rural women who turned to be bred winners in their households. To this end comes to the fore the levy-based funding mechanism, a systematic intervention of different institutions (the Department of Higher Education and Training (DHET), Sector Education Training Authority (SETA) South African Quality Assurance (SAQA), South African Revenue Services (SARS) and public and training institutions coordinated towards quality and coherence in the development of skills (Fasset, 2010).

The case illustrates how the system can develop scarce and critical skills in the agricultural sector. Its sector base addresses sector-specific skills challenges and broad base (with targeted programmes for the pre-employed unemployed underemployed and employed) and the special attention given to rural youth.

Agriculture finance empowers farmers to increase their wealth and food production for the growing population. This is due to change in dietary preferences in the growing middle class (Agriculture Finance World Bank, 2015). Government needs to earmark and decentralise a significant part of their budget to the agricultural sector for rural youth and women. Pre occupations of rural youth must be at the centre of their developmental policies (NEPAD, 2013).

Support to rural youth is important. (The Food and Agriculture Organisations, 2013) (FAO) has focused its activities and resources around the implementation of a complementary set of activities through awareness-raising, policy assistance, capacity development and technical support activities. This sheds a need for strong enabling environment in which young people can thrive while empowering them to seize current future opportunities.

2.6.10 Developing education policy-making capacities

Learning should go beyond the boundaries of the classroom/schools through non-formal lifelong learning activities (Report, 2007). Education is one of the key sectors of the government's plan for the reduction of poverty and hunger in Mozambique.

Across the world, education, be formal non-formal, vocational or special, is generally guided by a country specific national policy that articulates its services, value and utility to the nation (Osam, 2005).

In 2006 a directive of the Ministry of the Education and Culture (MEC) introduced school agricultural production as a compulsory curriculum activity for primary, secondary and intermediate level schools and later integrated school agricultural production activities in the teachers' training curriculum (ILO, 2005).

The aim was to contribute to an improvement in the quality of teaching and enhancing the knowledge of food security and nutrition among young people during their compulsory school years and beyond.

Over 50 teacher trainers from the 24 teacher training centres in the country have been used. (FAO's, 2013) help should be sought as she supports governments in developing a policy environment that is more conducive to the needs of rural youth.

To this end FAO formulates and implements policies, strategies, programmes and projects to effectively support the youth. Developing an integrated approach to rural skills development is important (ILO, n. d.). These include:

- Policies and strategies such as agricultural policies and private sector development and entrepreneurship policies;
- Strengthen collaboration and coordination with private sector in skills development both to increase the relevance of training and to improve and facilitate its delivery;
- Assess labour market needs and economic opportunities, and link training to the skills requirements in the particular rural context;
- Develop diversified skills development policies that consider formal, non-formal and informal training.

According to Obert Mathivha, cited by (Joubert 2013.p.2) investing in land and equipment need corresponding investment in human capacity. Young people therefore need to be incentivised into science and engineering degrees to acquire those skills required to get production in rural areas. (Karaan, cited in Joubert, 2013. p.3) argued that if an agricultural sector is built that will help grow the sector investment to human capability is important.

2.7 Implications for the Agriculture Vocational Education Curriculum

Policy makers and social partners must recognise the significant value of the events to foster youth participation. Government officials must take the advantage of the consultations to raise further awareness on the youth employment challenge and present their initiatives to support young workers.

In many countries policymakers committed publicly to increase their investment in youth employment, strengthen collaboration across government agencies, and enhance collaboration with the social partners (ILO, 2005).

2.8 20 Business ideas in agriculture for young entrepreneurs

Agricultural business can be started with little or no training .You do not need a special degree to start though you may need to spend some time learning about intricacies of the business. Top 20 innovative business ideas in agriculture for young entrepreneurs are:

- **Flour Milling:** You can start your own flour milling business and start converting grains like wheat, corns, millet and cassava into flour. Wheat flour is a product that is in high demand in the baking industry. Flour milling is something you can do from the convenience of your home if you have a small space and that you can mark out for it. You can easily get wheat, corns, millet or cassava from local farmers;
- **Fruit juice or Jam Production:** As young entrepreneur you can start making your own fruit juice or jam and supply them to supermarkets and food stores around you. There is a huge demand for natural fruit juice now as more people are learning how to eat healthy and avoid artificial and overly preserved foods and

drinks. Fruits are also available from local farmers. One can make his /her own natural healthy fruit juice at home;

- **Groundnut Processing:** Groundnut is a popular snack that is loved by many people. Take trip to a nearby supermarket and you will see bottled groundnuts branded and packaged in a fanciful way. It can also be done from the comfort of one's home.
- **Cashew Nut Processing:** Cashew nut processing and packaging is similar to groundnut processing;
- **Livestock Feed Production:** A lot of people are going into livestock farming, pig farming, poultry farming. As a young investor you can start producing feed for their animals. To start this business one will need a grinding machine, mixing machine, weighing machine customized packing bags and raw materials for production;
- **Quail egg Farming:** Recently a lot of people have come to discover the amazing health benefits of quail egg and a lot of people are now going into quail egg farming;
- **Mushroom Farming:** Mushroom farming is similar to quail farming and many people know that this business can bring about 500% profit. Mushrooms can be sold to hotels, exporters and pharmaceutical companies in the next 21 days;
- **Snail Farming:** \snail farming meat is a healthy alternative for meat. People who are on diet or suffering from a healthy condition, that prevents consumption of too much cholesterol usually turn to snail meat instead of meat;
- **Soya Beans Processing:** Soya bean milk is a healthy and nutritious drink that is in high demand by health conscious people. Agricultural Equipment Leasing
With the increase in people going into the agricultural business. Money can be

made from hiring out equipment like tractors, ploughs, sprayers, harvesters, and irrigation machine to farmer;

- Spices Production: Spices used to make food like curry, thyme, cayenne pepper to mention a few, are usually in high demand at food stores and supermarkets;
- Dairy Products: You can start making your own dairy products like milk, cheese, and butter for sale;
- Poultry and meat production and packaging. There is the general belief that manually packaged meat or poultry are not too hygienic because of the way they might have been handled. A lot of people are now making good money from machine processed and packaged meat;
- Medicinal and Herbal plant cultivation: Medicinal plants and herbs are in great demand both locally and for export;
- Vegetable farming: Vegetables are one of the highly consumed food items in the world. Starting a vegetable farm is one of the simplest and easiest businesses in the world with a high profit of about 500%;
- Agricultural export: You can also make money from packaging and exporting agricultural produce such as cassava, millet and maize for sale;
- Aqua farming; Catfish farming: Tilapia farming and crayfish farming are very good businesses for young people who are interested in agriculture;
- Agriculture Brokerage and Consulting: You can start business in agricultural brokerage by linking sellers of agricultural produce with buyers and get commission for it. You can also become a consultant and offer expert advice or organise trainings and seminars;
- Hatchery: Another good business for young entrepreneurs is starting hatchery for eggs and selling day-old chicks to poultry farmers;

- Florist: Fresh flowers are generally used for home decorations or event decorations and you can make money from growing flowers for sale.

2.9 Best practice examples from the selected countries and the theory of the research viewed probable for the promotion of job creation skills in rural areas

2.9.1 Benin

The country's Strategic Plan for Agricultural Sector recovery (PSRSA) focused on the promotion of value chain development as a major area of intervention. The government with other private sector and donors is gradually investing in technical and vocational training in the agriculture (Kassa, 2013). This is in line with the assertion of the theory to ensure return on investment for investors under Broad Base Black Economic Empowerment codes (Youth Skills Development and Replacement Theory)

A ten-year development plan (2013-2023) has been elaborated for the education sector, which defines a formulated vision and strategic guidelines for ATVET at national level. Before and from 2012 Agricultural Technical High Schools have increased from six to ten, The number of enrolment including females increased from 2008 by almost 200%.

Benin also offers favourable prerequisites such as the Songhai Training Centre, coupled with conducive political institutional framework conditions, which can be starting points facilitating the implementation of an ATVET programme in-country.

Songhai allows young Africans to stand on their own through agricultural entrepreneurship. This is assertion of encouraging and creation of a sense of accountability amongst youth (Youth Skills Development and Replacement Theory). Molema, 2013) argued that entrepreneurship needs to be introduced and taught in the

high school curriculum so when a child matriculates he/she has a chance to become a business person.

Songhai therefore provides training to young people on sustainable agriculture using local resources, equips students to establish small-scale businesses in rural areas This is a return on investment for investors under Broad Based Black Economic Empowerment (BBBEE)(Youth Skills Development and Skills Replacement Theory). It consists of a wide network of entrepreneurs operating in agribusinesses to manage viable agricultural enterprises and to train farmers and other stakeholders in their region in a dynamic-socioeconomic entity. This is also a sustainable impact on countries and economy (Kassa, 2013).

Songhai also provides technical training and material support to farmers and community dwellers. Rapid expansion of ATVET in the last five years in Benin was the growing number of trained students at tertiary and secondary level in ATVET system. Four new Agricultural Technical High Schools and two new University centres of agronomy were opened. There is also a growing collaboration between ministries involved in ATVET.

2.9.2 Ethiopia

Ethiopia's agricultural sector accounts to 85% country's employment and 80% of the export is adhering to the CAADP Compact signed in 2009. By mid- 2012 Ethiopia's ATVET sector was advanced in its adoption and preparation of structure and document to the Ethiopian National ATVET strategy for ATVET colleges. Two ATVET colleges are successfully implementing strategies plan and the constructions of four colleges is now complete and fully operational

More than 22.000 agriculture extension officers (3.000 female) were provided with ATVET skills for knowledge transfer to farmers, 2.400 Farmers Training Centres (FTCs) were provided with relevant infrastructure of which 1800 are now fully functional. Assertion of skills requisition towards employment and enterprise has been facilitated; Youth Skills Development and Replacement Theory again have been effected.

2.9.3 Namibia

In Namibia the government is very supportive of ATVET and has ambitions to develop a complete based ATVET system, based on a comprehensive and flexible Namibian Qualifications Framework (NQF), (NEPAD, 2013,p. 25).

A key area of the Namibia Development Plan (NDP4) for 2012/2013 2016/2017 is to increase the percentage of candidates that meet the entry requirements for ATVET. Key areas of skills shortages will be identified and targeted for development.

This will include the increase of provisions for opportunities for ATVET. Five major centres providing non-formal farmer ATVET plus 17 research stations and centres involved in agriculture throughout the country have been established (NEPAD,2013).This is facilitation of skills acquisition towards employment and enterprise opportunities (Youth Skills Development and Replacement Theory).

2.9.4 Sierra Leone

In this country the rural and agricultural sector is guided by multiple strategic directives led by the Ministry of Agriculture, Forestry and Food Security (MAFFS) (NEPAD 2013).The CAADP signed 1 August 2009 confirms the government and the donor

responsibilities in meeting the challenge of building and reconstructing the agricultural sector.

Sierra Leone's ATVET policy is incorporated into the general education policy and aims at improving young people's chances of acquiring skills, helping them find employment and intends to provide a range of skills development opportunities linked to jobs in the formal and informal sectors (Skills Development and Replacement Theory).

Knowledge and skills gained from the implementation of Farmer Field Schools (FFSs), Farmer Business Organisations (FBOs) and Agribusiness Centres (ABCs) create a fertile ground to set up further ATVET programmes that use the following best practice experiences from existing programmes.

The Free State government as individual in the nine provinces is worth mentioned in funding the National Rural Youth Service Corps (NARYSEC) in OFS (DRDLR.RSA) launched a programme aimed at bridging the skills gap among South African rural youth. Since then the (NARYSEC) has transformed the lives of more than 11.000 youth participants by equipping them with skills and entrepreneurial opportunities.

Since its inception five years ago the programme has recruited and afforded 17 393 young people opportunities to be trained in various marketable skills (Facilitation of skills acquisition towards employment and enterprise opportunities; Youth Skills Development and Replacement Theory)

2.9.5 Songhai training centre

The Songhai centre was founded in the late eighties in Benin to develop alternative, allowing young Africans to stand on their own through agricultural entrepreneurship. This is skills and enterprise development which is critical in preparing the youth for

career and entrepreneurial opportunities and the sense of personal accountability (Youth Skills Development and Replacement Theory).

It carries out training to young people on sustainable agriculture using local resources and equips students to establish small-scale businesses in rural areas production and research combining traditional and modern methods (Songhai, 2010 cited in NEPAD 2013 p.18). Songhai also provides technical and material support to farmers and community dwellers.

If certain areas are targeted and provided with all necessary human resources including private sectors a change in agricultural sector and youth unemployment can be reduced in South Africa. Such projects should be pronounced in most rural areas of South Africa thereby promoting job creation skills development and replacement.

Of the four countries Sierra Leone is the best. However, the figures given are too low for alleviating youth unemployment and reduce hunger internationally and d in South Africa. Three ways to boost job creation in Africa (Maritz, 2012):

- Utilise uncultivated land: it is estimated that the continent has 60% of world arable land;

To achieve this, policies on land rights need to be integrated to water management, access to inputs and finance distribution, Infrastructure and trade policies.

- Focus on labour-intensive crops: Staple foods such as grains, soya beans, and sorghum can employ between 10 and 50 people. 1000 hectares. Horticultural products are more labour-intensive growing 1000 hectares. Of olives or oranges requires 300 to 500 people;

- Agro-processing industries: Reviving continents manufacturing sectors can create millions of additional jobs. A country with large agricultural sector should focus on developing agro-processing industries.

2.9.6 Trends in promoting agricultural value chains

Value-chains refer to the whole series of operations from production of inputs to cultivation, post-processing, distribution and marketing until the product reaches the consumer (Dararath, 2011 and Kumar, Singh Kumar, and Mittal, 2011). Rural developments are starting point of value chains. Helping them capture market opportunities, obtain fair deals and produce higher quality products improves value chains performance and increase rural income and employment and harness economic growth (Swanson 2006).

Recent researchers have brought in argument by suggesting that the emergence of modern food value chains has improved linkages between buyers and poor farmers in the developing countries which has turned out the beneficial for smallholders (Maertens and Swinnen, 2006, and Minten et al., 2007, Birthal et.al., 2007).

Value chains perspective highlights the context and dependencies for otherwise discrete development initiatives that may be undertaken by various operators-private companies as well as public agencies, rural as well as urban and domestic as well as foreign. A prosperous system requires that the entire value chain functions well. A weak or missing link can reduce the intended benefits or at worst undermine the viability of the whole system (Dararath, 2011).

It is therefore important to understand and consider the entire value chain with its dependencies and the potential for upgradings of its different links. This in turn requires collaboration between the various public and private actors and development partners.

In the case of modern integrated value chains producers gain from increased knowledge, better quality and food safety, reduced costs and losses, higher sales and greater value-addition in production (Kumar, et al., 2011).

However, recent researchers have brought in another side of the argument by suggesting that the emergence of modern food value chains improved linkages between buyers and poor farmers in the developing countries.

The role of technologies in value chains is that it is believed that changes in institutional arrangements along with availability of new technologies and modern information and communication modes play an important role in the economic growth of the country. They also play a role in the development of agricultural sector and improvement in the income levels and livelihood situation of farmers (Kumar, et al., 2011).

The benefits of the value chain perspective are that it highlights the context and dependencies for otherwise discrete development initiatives that may be undertaken by various operators. Improved rural income is an important socio-economic aim that can be supported in many ways. Improved cultivation systems improved irrigation supplies, better post-processing postharvest better access to markets (Dararath, 2011).

Scientific research provide new technologies that can increase revenue and reduce risks, while often at the same time generating new dependencies e.g. the reduction of barriers to international trade. Changes in one link of the value chain will affect the other links for the better or the worse (Dararath, p.2). Development needs and opportunities need an open-ended human resource development including but not limited water user associations. Agricultural sector is the obvious flagship of the

country's economic development therefore there is a scope for improving the agricultural extension (Dararath, p.3).

The market for agricultural sector is very limited which can impose a serious threat to local investors. Small farm sizes and poor soils can make it next to impossible to make a living out of one single crop rice per year and single failed crop cause a serious social shock to the household (Dararath, p.3).

Value chain can serve as a framework for different initiatives in the development by small steps for actors who share an interest in the agricultural sector (Dararath, p.3). Value- chains create new types of jobs. It works best when actors cooperate to produce higher quality products and generate more income for all participants along the chain (Norton, 2014).

Global value chains are characterized by falling barriers on international due to decreasing tariffs and the lowering of price support and export subsidies in the last decades. However, value chains can also be seen as a vehicle by which new forms of technologies and production logistics, labour processes and organisational relations and networks are introduced (Trienekens, 2011).

The challenge for developing country producers is how to enter these value chains and how to improve so as to compete in these new markets. The main aim of a value chain is to produce value added products or services for a market by transforming resources and by the use of infrastructures within the opportunities and constraints of its institutional environment (Trienekens, p.53).

Therefore constraints for value chain development are related to market access (local, regional, international) and market orientation (Trienekens, p.53). (Grunert, Fruensgaard, Risom, Jespersen and Sonne, 2005) defined market orientation of value

chain as 'chain members' generation of intelligence pertaining to current and future end-user needs, dissemination of this intelligence across chain members and chain wide responsiveness to it.

Value chain network needs upgrading: this structure includes horizontal upgrading and vertical relationships focusing on taking part in the right market channel. In its sophisticated form horizontal collaboration might result in product differentiation combining value adding activities with other sectors of the economy (Trienekens, p.70). Thus creating jobs and reduce youth unemployment.

Getting access to markets is not sufficient condition for developing country value chains to be able sell their products. Supporting infrastructures, resources including knowledge and capabilities are conditional for these chains to be successful. Quality demands, internationalization and market differentiation have led in the developing countries to the emergence of distinct food sub-systems with specific quality and safety requirements, leaning on different market channels eg. local national and international markets (Trienekens, p.55).

ATVET has the potential to be demand-driven responding to the current needs of both employers and employees in the changing field of agriculture, and the combination of agricultural value chain growth and workforce development (Jones, 2014).

Since the value chains have been explained in the beginning of the first chapter of this research, it is important to look at the impact in South Africa agriculture:

- This can help in Agro-food system in changing world;
- Shifting governance structures and roles of public and private sectors;
- Geographical shift and the growing importance of emerging economies;

- New consumption patterns and consumer demand shaping agricultural value chains;
- Corporate social responsibility and sustainability;
- Agricultural innovations and biotechnology;
- Innovation in ICT to support value chain development.

Management and policy implications in upgrading value chains can only be achieved through partnerships: private actors in the value chain and public-private (between actors in the value chain and facilitated by external party) (Trienekens, 2011).

Value chains for rural development are needed (Swanson, 2006) because:

- The closer business links between farmers' agro-processors exports, traders and retailers provide significance potential for improved and increased employment and economic returns;
- Rural areas have valuable agriculture and human resources that remain untapped. Improving value chain and addressing bottlenecks can unleash economic potential and generate employment;
- Macro, small and medium enterprises supply value chains and are major source of employment and income in rural areas of developing countries. Integrating major small and medium enterprises in value chains can help increase their economic performance, boost employment creation and improve working conditions;
- Small farmers producer focused value chains can help rural population to transition out of subsistence farming and reap the more lucrative grains and income opportunities that well-functioning value chain offer.

Value chains for rural development will:

- Improve business and financial services in rural areas;
- Improve small farmers' entrepreneurship, skills, by facilitating their access to teaching technical training in business management and finance skills;
- Extend business development services to rural enterprises and adapt these services to rural specific needs by working with existing service providers;
- Agricultural business to be more accessible through outreach programmes to rural areas that enable first time entrepreneurs to conquer the entry barriers in value chains;
- Encourage cooperation among different actors in the value chain and consider combining financial and non-financial services such as training with credit (ILO, p.2).

However, small producers face obstacles in entering local value chains from high transaction costs to insufficient access to financial and other assets such as storage facilities and infrastructure.

Limiting access to financial business services makes it difficult for small rural enterprise to become suppliers to larger firms compete global value chains enter higher value market (Swanson, 2006). In this chapter, promotion of job skills creation and enterprises through education in agriculture has been explored. The pitfalls to the development as a food security industry have been explored. Skills and training emerged as fundamental needs for promotion of job skills creation to reduce youth unemployment and poverty in the rural areas.

Value chains have sustainable agricultural entrepreneurship, students need to be involved in decision making and unless partnership by government and private sectors is not consolidated agriculture as business sector is limping and will not match the

needs of the population in South Africa. There is still more to be done by the governments in Sub-Saharan Africa.

Subjects, curriculum and other issues related to agriculture VET as programme that promotes job creation skills has been explored and will be further evaluated in the target group during data collection of the next chapter of the study. The literature was understood within the context of the theory of the study. Fast tracking youth unemployment strategies have been mapped out complemented with best practice example countries and the consolidation of the Youth Skills Development and Replacement Theory of this study.

In conclusion, skills are central to improve employability and livelihood opportunities, reduce poverty, enhance productivity, and promote environmentally sustainable development. Teaching pre-vocational subjects in the primary and junior secondary schools should be taken more seriously to raise the interest of students for these vocational programmes. All stakeholders especially those within the private sector, should provide more funds for the purchase of instructional facilities.

Governments should introduce policies which stimulate the growth of the rural farm and non-farm sectors. They should increase investments in education and vocational training in rural areas especially for young people.

Policies should ensure that women , who represent a major workforce in rural areas receive the same benefits and support as men small scale farmers should be encouraged to work together to improve their productivity and access to markets.

Chapter three is research design and methodology.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Research paradigm

A paradigm is a model or pattern containing a set of legitimated assumptions and a design for collecting and interpreting data (De Vos, Strydom, Fouche', and Delport, 2012). Paradigms play a fundamental role in science. In general paradigm is best described as a whole system of thinking. In this sense, a paradigm refers to the established research traditions in a particular discipline (Neuman, 2011).

A paradigm is thus a basic set of beliefs that guide action. The roots of the qualitative and quantitative approach extend into different philosophical research paradigms namely those of positivism and post positivism (Babbie, 2010a).

3.1.1 Positivism

Positivism refers to the philosophical positions that emphasise empirical data and scientific methods. This tradition holds that the world consists of regularities which are detectable and this the researcher can infer knowledge which about the real world by observing it (Jacobsen, 2013).

The positivist tradition permits the scientists to choose from certain tool box of method when investigating the real world. This is denoted as methodology of the discipline and consists of methods, rules, and postulates. A positivist approach provides a hierarchy of methods (Jacobsen, 2013).

Human beings are seen objectively and as a result, social scientists look to different avenues to study human society (De Vos et. al., 2011).

Positivism may be seen as an approach to social research that seeks to apply the natural science model of research as the point of departure for investigations of social phenomena and explanations of social world.

Positivism firstly entails a belief on the assumption that patterns (trends) generalisations, methods, procedures, cause and effect issues are also applicable to the social sciences. This view of positivism maintains that the objects of the social sciences, namely people, are suitable for the implementation of scientific methods. Positivism entails a belief that valid knowledge can only be produced on the basis of direct observation by senses; and this would include the ability to measure and record what would be seen as knowledge.

De Vos et al. (2011) stated that scientific theories are seen by positivists as proving hypotheses which are then submitted to empirical testing. This implies that a science is deductive as it seeks to extract specific propositions from general accounts of reality positivist research is more straightforward in terms of planning, simply because the data is collected in one go and the analysis of all the data takes place at the same time.

To this end, positivist believes that the world is external and there is a single objective reality to any research phenomenon regardless of the researcher's perspective or belief (Prabash, 2012). Thus, they take a controlled and structural approach in conducting research by identifying a clear research topic, constructing appropriate hypothesis and adopt a suitable method.

Positivism remains detached from the participant of the research by creating a distance important in remaining emotionally neutral to make clear distinctions between reason and feeling. However, this study focus on interpretivism since it is qualitative research.

3.1.2 Interpretivism

The interpretivism is also called the phenomenological approach (de Vos, Fouche' and Delport, 2012). This is an approach that aims to understand people (Babbie and Mouton, 2008). Interpretivism thus focuses on exploring the complexity of social phenomenon with a view to gain understanding. Interpretivism further hold the view that the social world cannot be understood by applying research principles adopted from the natural science. The social sciences require a different research philosophy. The three basic principles of interpretivism are (Blumbeg, Cooper, and Schindler, 2011.p.308):

- The social world is constructed and given meaning subjectively by people. Human beings are subjects that have consciousness, or a mind; while human behaviour is affected by knowledge of the social world, which exists only in relation to human beings.
- The researcher is part of what is observed and
- Research is driven by interests.

Interpretivists argued that simple fundamental laws cannot explain the complexity of social phenomena (Blumberg, Cooper, and Schinder, 2011). Interpretivists claimed that an objective observation of the social world is impossible as it has meaning for humans only, and is constructed by international behaviour and actions.

De Vos et al., (2011) described interpretivism as a major approach in data collection. Interpretivism is also defined by (Elster, 2007 cited by Chowdhury, 2014. p.2) as the approach that emphasises meaningful nature of people's character and anticipation in

both social and cultural life. Accordingly, interpretive researchers assumed that access to reality is only through social constructions such as language consciousness, shared meanings and instruments (Myers, 2008).

The aim of interpretivism is to understand the subjective meanings of persons in studied domains in the interpretive paradigm (Gouldkuhl, 2008).

Interpretivists reject the notion that research is value-free; since the researcher's interpretation is also socially constructed reflecting his motives and beliefs. Human interests not only channel our thinking but also impact how the world is investigated and how knowledge is constructed (Blumberg et al., 2011). Hence, the approach to social phenomenon for current study should also reflect the currently common construction of knowledge, it thus, implies the following assumptions.

The social world is observed by seeing what meanings give it and interpreting these meanings from their viewpoints and social phenomena can only be understood by looking at the reality. De Vos et al., (2011) suggested the use of participant observation and field research techniques, where many hours and days spent in direct contact with the participants. Transcripts, conversations and video-tapes may be studied in order to gain a sense of subtle non-verbal communication or to understand the interaction in its real context (Neuman, 2011).

The researcher provides insights into the behaviour displayed and the meanings and interpretations that subjects give to their life world (De Vos, et al., 2012). Therefore, the goal of the study is to gain insights into the exploration potentials of Agriculture Vocational Education programme and the promotion of job creation skills in the TVET colleges. Interpretivism belief is that the reality is multiple and relative.

Interpretivist avoids rigid structural framework such as in positivist research and adopt a more personal and reflexable research structure (Carson, et al.,2001 cited by Prabash, 2012. p.2) which are receptive to capturing meanings in human interaction (Black, 2006 cited by Prabash, 2012, p.2) and make sense of what is perceived as reality.

Interpretative researcher enters the field with prior insight of the research context but assumes that this is insufficient in developing a fixed research design due to complex multiple and unpredictable nature of what is perceived as reality. The interpretivist constructivist approaches to research have the intention of understanding the world of human experience suggesting that reality is socially constructed.

The interpretivist tends to rely upon the participants views of the situation being studied and recognises the impact of the research of their own background and experience (Mackenzie, 2006).

Constructivist does not begin with a theory (as positivists) rather, they generate or inductively develop a theory of meanings. Constructivist researcher is most likely to rely on qualitative data collection methods and analysis or combination of both qualitative and quantitative i.e. (mixed methods) (Mackenzie, 2006). The researcher remains open to new knowledge throughout the study and lets it develop with the help of informants (Prabash, 2012).

The interpretive approach of the interpretative or interpretivist research has their roots in philosophy and the human sciences in history philosophy and anthropology.

The methodology centres on the way in which human beings make sense of their subjective reality and attach meaning to it. Social scientists approach people not as

individual entities who exist in a vacuum but explore their world within the whole of their life context (Silverman, 2006).

The interpretive model has a long history from its roots in the nineteenth century to Dilthey's philosophy, Weberian sociology and George Herbert Mead's social psychology. Interpretivist view is linked to Weber's *Verstehen* approach. Philosophers and historians such as Dilthey (1833-1911) considered that the social sciences need not imitate the natural sciences; they should instead emphasise empathetic understanding in the natural sciences (Silverman, 2006 p.7).

Cohen (2006) described qualitative paradigm as follows:

- Realistic ontology assume that reality is constructed inter-subjectively through the meanings and understandings developed socially and experientially;
- transactional or subjectivist epistemology assume that we cannot separate ourselves from what we know;
- the investigator and the object are linked such that who we are and how we understand the world is a central part of how we understand ourselves and the world;
- by posing reality that cannot be separated from our knowledge of it the interpretivist paradigm posits that researcher's values are inherent in all phases of the research process and truth is negotiated through language;
- findings or knowledge claims are created as an investigation proceeds;
- findings emerge through dialogue in which conflicting interpretations are negotiated among members of the community;
- pragmatic and ethical concerns are important considerations when evaluating interpretive science;

- interpretations are based in a particular comment, that is they are located in a particular context and time;
- they are open to re-interpretation and negotiations through conversation.

Within interpretivism is phenomenology which is sometimes considered a philosophical perspective as well as an approach to qualitative methodology. It is a qualitative research method originally developed by philosopher Edmund Husserl (Wertz, 2005). It has a long history in several social research disciplines including psychology, sociology and social work. Phenomenology is a school of thought that emphasizes a focus on people's subjective experiences and interpretations of the world. That is, the phenomenologist wants to understand how the world appears to others.

Phenomenological research uses the analysis of significant statements, the generation of meaning units, and the development of an essence description (de Vos, Fouche' and Delport, 2012).

3.2 Research Approach

Qualitative research as defined by Makhanya (2006) and De vos, et al., (2012) is an approach design of all decisions made by the researcher in planning the study. Qualitative research is used when an issue under study needs to be comprehended in a complex and detailed level (Tavallaei and Talib, 2010).

This researcher thus tries to minimise the power relationships between himself and participants by empowering them to share stories and have silent voices be heard by concerned experts.

According to Clisset (2008) qualitative research covers wide range of approaches for the exploration of human experience, perception, motivations and behaviours, It is

concerned with the collection and analysis of words whether in the form of speech or writing.

Qualitative approach in the study means what others say or do to get grasp, hear, catch, and comprehend what something means and provide opportunity to the researcher to observe record and interpret non-verbal communication (Henderson, 2015) A common feature of qualitative projects is that they aim to create understanding from data as the analysis proceeds.

This means that the research design of a qualitative study differs from that of a study that starts with an understanding to be tested, where often the hypothesis literally dictates the form, quantity, and scope of required data (Richards, 2006).

Qualitative research is usually not pre-emptive. Whatever the study and the method are must be obtained from the question from the chosen method, from the selected topic and goals and in an on-going process from the data (Richards, p.73).

In qualitative research, design is the system of choices the researcher makes that helps him to conceive and conduct the study in an orderly and effective manner (Chenail,2011).Designing concepts helps the researcher to discover, explore, basic patterns of a naturally occurring phenomenon, to evaluate the performance of a project, to construct a theoretical model that helps to explain the relationships between different variables, to describe how participants understand their experiences regarding some aspect of their lives, and to determine whether the study will fall under primary research category (Chenail, p.1718).

Research design therefore is created by the researcher, moulded by the method and responsive to the context and participants.

Creating research design involves seeing the project at different levels. The overall design of the project must be aimed at answering the researcher's question (Richards, 2006).

In line with the definition is Harwell (2011) argued that it may reflect the entire research process, from conceptualising a problem to the literature review, research questions methods and conclusions.

Research methodology is a way to systematically solve research problem. It may be understood as science of studying how research is done scientifically (Kothari, 2004.p.8).

Within it various steps are adopted by the researcher in his studying research problem along with the logic behind them.

Methodology is also referred to as a tool used to accomplish part of the study, specifically how to obtain and analyse data (Bean, 2005). Qualitative methods focus on discovering and understanding the experiences, perspectives and thoughts of participants. Qualitative research is a situated activity that locates the observer in the world It consist of a set of interpretive, materials practices that make the world visible (Harwell, 2011).

Different qualitative research methodologies have different strengths when it comes of meeting the needs of different design concepts: ethnographic methodologies are well suited for primary research studies conceived to describe social phenomenon and grounded theory approaches are useful for generating explanatory models (Chenail, 2011).

On discovering and understanding the experiences perspectives and thoughts of participants. Qualitative methods focus on discovering and understanding the experiences, perspectives, and thoughts of participants-that is, qualitative research explores meaning, purpose, or reality (Harwell, 2011).

Qualitative research is usually described as allowing a detailed exploration of a topic of interest in which information is collected by a researcher through case studies ethnographic work, interviews Inherent in this approach is the description of the interaction s among participants and researchers in naturalistic settings with few boundaries, resulting in a flexible and open research process(Harwell, p.148).

3.2.1 Research Design

3.2.1.1 A case study

A case study approach provides a mode of inquiry for an in-depth examination of a phenomenon (Merriam, 2015).The case studies are largely descriptive examinations usually of small number of sites where the principal investigator is immerse in the life of the site or institution, observing on-going activities and develop an analysis of individual and cross-case findings.

The principle of case study research excels at bringing the researchers to an understanding of a complex issue or object and can extend experience or add strength to what is already known through previous research. It emphasise detailed contextual analysis of a limited number of events or conditions and their relationships (Kakulu, 2008). A Case study has the following advantages.

- It investigates a contemporary phenomenon within its real-life context;
- the boundaries between phenomenon and context are not clearly evident; and
in which multiple sources of evidence are used;

- The case study allows for a multiple methods for data collection and analysis;
- It provides a picture of what is happening as seen through the eyes of many individuals;
- It allows a through exploration of interactions between treatment and contextual factors;
- Can help explain changes or facilitating factors that might otherwise not emerge from the data.

Disadvantages

- Can be costly in terms of the demands on time and resources; and
- Individual cases may be over interpreted or over generalised.

A case study focuses attention on a single instance of some social phenomenon such as village, family, or gang. The chief purpose of the study is that it is descriptive or the in-depth study may yield explanatory insight (Babbie, 2013). A particular individual, event or programme is studied in depth for a defined period.

It is suitable for learning more about a little known or poorly understood situation (Leedy and Ormrod, 2010). The primary sources in this study are primary source materials and documentary evidence, interviews with key participants and observation of the standards of work, news- papers, articles, post records, previous tests scores, photographs and video tapes. Each of these data sources provides the study with specific types of information (Merrian, 2015).

Out of the three types of case studies stated by (Stake, 1994:237 cited in Merrian; 2015.p.4) the intrinsic case study is considered as it explores a particular case to gain a better understanding and that instrumental case study in which a particular case is

examined to provide information or insight on issues or the refinement of theory. This study serves both intrinsic and instrumental purposes.

The researcher's goal is to develop a holistic understanding of VET and the promotion of job creation skills. The study describes and explored a particular process. Given the history of FET Colleges, documenting and understanding its development is valuable for its own sake, thus the study served intrinsic purposes.

The study is also instrumental to the extent that it shed light on the problems and issues that may be common to other information technology standards development efforts.

3.2 1.2. Population

Population refers to the group of people that is regarded as the group to which the researcher wishes the results to apply and the people about whom we want to draw conclusions (Babbie, 2010). It refers to the desired scope of application of the research results (Makhanya, 2006, and Babbie, 2010).

It is a complete element of persons that possess some common characteristics defined by the sampling criteria established by the researcher. Population is composed of:

- target population which is an entire group of people the researcher wishes to generalise the study findings.
- accessible population is the portion of the population to which the researcher has reasonable access, may be the subjects of the target

Therefore population is a larger pool from which our sampling elements are drawn and to which we want to generalise our findings (Terre Blanche, Durrheim and Painter, 2006). The population of the study was formed by all agriculture students; first year up

to final year students and all facilitators of agriculture in the OFS FET College in the rural area. Coordinators also form part of the population.

3.2.1.3 Sample

In qualitative research a subset of a population is selected for any given study (Mack, Woodsong, MacQueen, Guest and Namey, 2005). The study's research and objectives and the characteristics of the study population such as size and diversity determine which and how many people to select. In that study purposive sampling was used to gain an in-depth, rich account of particular participants' life worlds (Makhanya, 2006).

Qualitative sampling is always purposive in groups participants are deliberately selected to provide the most information-rich data possible according to preselected criteria (people who have experienced in a particular phenomenon age, and demographics) relevant to a particular research question (Morrow, 2005).

The selection of the subjects is on the basis of knowledge of a population and the purpose of the study (Babbie, 2010/13). Purposive sizes are determined on the basis of theoretical saturation (the point in data collection when new data no longer bring additional insights to the researcher question) Engaging in sampling meant selecting individual units to measure from a larger population (De Vos, 2005).

The sampling was also non-probable as sample procedure. However, quota sampling the researcher decided while designing the study how many people with which characteristics to include as participants (Mack, et al., 2005). In this study seven participants were selected to form the sampling frame (they were three final year students, facilitator peer facilitator and a coordinator) a number of seven participants.

The characteristics included gender, age, place of residence, gender, class, marital status and profession.

3.2.1.4 Data collection procedure

Permission was sought from the District Office in Qwa-Qwa to visit the agriculture FET College and permission for the arrangements to see the target group were made with the head and management of the college.

- information sheets, advertisements or brochures or local newspapers or radio stations to do the report on the research or the researcher might spend

a week or two talking with people one-to one. Any participation in the study should be voluntary (Babbie and Mouton, 2007).

3.2.1.5 In-depth interviewing / face-to-face

Qualitative research relies on extensively on in-depth interviewing also known as conversation with purpose (Marshall, 2006); three general interview categories:

- the informal, conversational interview:
- the general interview guide approach; and
- the standardised, open-ended interview. The researcher explores a general topic to help uncover the participant's views but otherwise respects how the participant frames and structures the responses.

Face-to-face interviews are used to solicit information in project that can be considered to be sensitive. Face-to-face interviews are characterized by synchronous communication in time and place. It can take its advantage of social cues such as voice intonation; body language of the interviewee can give the interviewer a lot of

extra information that can be added to the verbal answer of the interviewee on a question (Opdenakker, 2006). Face-to-face interviews on other hand allow the observation not only on verbal but also nonverbal data.

In the same room participants and interviewer have access to facial expressions, gestures and other Para verbal communications that may enrich the meaning of the spoken words (Knox and Burkard, 2009). Relatedly, one assertion made in support of in-person interview is that because both researcher and participants are in the same space and thus have access to more than just verbal data they can build the rapport that may enable participants to freely disclose their experiences more effectively than might occur in phone interview (Shuy, 2003 cited by Knox and Burkard, 2009.p.6).

Within face-to-face interview is authenticity. This involves impression management of behaviours which regulates the expressions both given and given off. With face-to-face interactions researchers are constantly participating in impression-management, showing various impressions to various individuals (Sullivan, 2013).

Polkinghorne (1994 cited by Knox and Burkard, 2009.p.6) asserted that in-person interviews yield authentic and deep descriptions of phenomenon via the interviewer's ability to facilitate trust and openness in the interviewee which then lessens the interviewee's need for impression management. Face-to-face interview is used to solicit information in projects that can be considered to be sensitive. It is also good method to minimize non-response and to maximize the quality of data collected.

The presence of the interviewer makes it easier for the respondents to either clarify or ask for clarifications (Lavrakas, 2008). However, interviewing has limitations and weaknesses. Interviews involve personal interaction and cooperation. Interviewees

may be unwilling or may be uncomfortable sharing all that the interviewer hopes to explore. To maintain the integrity of the interview,

It is important that interviewer learns to respond in supportive ways to participant's emotional distress and respond in supportive ways to participant's to maintain the interview relationship and encourage further elaboration (Knox and Burkard, 2009).

However (Knox and Burkard, 2009) argued that many participants agree to be interviewed because they expect to gain from the experience possibly finding the interview interesting and rewarding validating of personal experiences or enabling them to altruistically help others. In this situation the interviewer should have superb listening skills and be skilful at personal interaction, question framing, and probing for elaboration (Marshall, 2006).

3.2.1.6 Focus group

A focus group method is a major approach of data collection preceded the group and individual interviews (Kakulu,2009).A focus group is an organised small group of six to ten people led through an open discussion by a skilled moderator. The group need to be large enough to generate rich discussion but not so large that some participants are out (Eliot, 2005).

However in some literatures focus group members should not exceed the number of eight (Gill, et al. 2008).In focus group the groups are generally composed of people who are unfamiliar with another and have been selected because they are homogeneous, share certain characteristics relevant to the study's questions (Marshall, 2006). A focus group combines elements of interviewing and participant observation.

A focus group discussion provides space to discuss a particular topic at the same place and at the same time, in context where people are allowed to agree and disagree with each other. This allows the researcher to explore of how people think about the issue, the range of opinions and ideas and the inconsistencies of and variations that exist in a particular community in terms of beliefs and their experiences and practices (The Open University, 2005). The researcher is interested in the ways in which individuals discuss a certain issue as members of a group rather than simply as individuals.

By allowing the researcher to interact directly with respondents it provides opportunities for the clarification of responses.

For follow up questions, and for the probing of responses .Respondents can qualify responses or give contingent answers to questions. This makes it possible for the researcher to observe non-verbal responses such as gestures, smiles, frowns which may carry information that supplements the verbal response (Kakulu, 2009).

The open response format of a focus group provides an opportunity to obtain large and rich amounts of data in the respondents' own words.

The researcher can obtain deeper levels of meanings, make important connections and identify subtle nuances in expression and meaning. In this study the final year students, coordinator and facilitators are expected to provide information required. Flick (2007) warns if a research is in an institution and has to sample interview partners from a group of people who know or are in touch with each other it can be irritating for the individual not being chosen for participation.

The advantages of focus-group discussion are:

- that this approach is socially oriented,
- studying participants in an atmosphere more natural than artificial experimental circumstances and
- more relaxed than a one-to-one interview (Marshall, 2006).

Interaction is a key to a successful focus group. Sometimes this means a pre-existing group interacts best for research purposes and sometimes stranger groups. Pre-existing groups may be easier to recruit, have shared experiences and enjoy a comfort and familiarity which facilitates discussion or the ability to challenge each other comfortably.

Pre-existing group can overcome issues relating to disclosure of potentially stigmatising status which people may find uncomfortable in stranger groups (Gill, et al., 2008).

In the in-depth interview, observation plays an important role as the researcher notes the interviewee's body language and affect in addition to her words.

It is based on structured and semi-structured or unstructured interviews. It allows the researcher to question several individuals systematically (Babbie, 2010). Therefore focus group can reveal a wealth of detailed information and deep insight (Eliot, 2005).

Musselwhite, Cuff, McGregor, and King, (2006) stated some of the benefits of the in-person interviews, which may (1) help maintain participant involvement more successfully than phone interviews (2) clarify the information being communicated. Within this assertion agreed (Opdenaker, 2005) the advantages of face-to-face interview preferred when:

- Social cues of the interviewee are very important information sources for the interviewer(of course dependent on the research problem);
- The interviewer has enough budget and time for travelling or the interviewees live near the interviewer;
- Standardisation of the interview situation is important.

Focus group sheds light into how people think feel about a particular topic, give greater insight, helps improve planning, produce insight for developing strategies for outreach (Marczak, and Sewell, 2007).In the focus group moderator nurtures disclosure in an open spontaneous format. The participants are motivated but not guided to discuss on the relevant topic.

The strength of focus group interviewing is twofold Firstly at large amount information could be released.in a comparatively short period of time. Secondly, it allows the researcher to observe interactions among participants. A focus group interview is more successful when the topic is the participants' concern rather than the researcher's concern. The goal being to generate a maximum number of different ideas and opinions from as many different people in the time located.

Focus group is structured around a set of carefully predetermined questions- usually not more than 10 but the discussion is free-flowing. Ideally, participant comments will stimulate and influence the thinking and sharing of others (Marczak and Sewell, 2007).

A focus group is not:

- A debate;
- Group therapy;
- A conflict resolution;
- A problem solving session;

- An opportunity to collaborate;
- A promotional opportunity;
- An educational session.

3.2.1.7 Recruiting and preparations for participation

A focus group is also called group interview is based on structured, semi-structured or unstructured interviews. It allows the researcher to question several individuals systematically or simultaneously. Subjects are selected on the topic under study. A focus group discussion is an organized discussion between 6-8 people.

As a first step in preparing for a focus group it is important to be thoroughly familiar with the focus group guide for several reasons. As a way of pre-view questions or discussion guide should be set (Mack, et al., 2011).

- Practice a short hand note taking in the pilot focus group;
- Label all the materials that will be used during the focus group including cassette tapes, notebooks, note taking and debriefing forms and the focus group guide;
- Arrive earlier.

Homogeneity is the key to maximizing disclosure among focus group participants. Therefore the following will be considered in the criterion of selection the focus group. **Gender** with both men and women feel comfortable discussing the topic in a mixed gender group.

Age how intimidating would it is for a young person to be included in a group of older adults or vice versa. **Power**-Would students be candid to make remarks in front of their teachers (Eliot, 2005).

Focus group participants can be recruited in any one of a number of ways:

- Nomination- Key individuals nominate people they think would make good participants;
- Nominees are familiar with the topic known for their ability to respectfully share their opinions, and willing to volunteer about an hour of their time;
- All members of the same group- sometimes an already existing group serves as an ideal pool from which to invite participants. Depending on the topic, the pool might be defined by position title on condition;
- Random selection. If participants will come from a large but defined group with many eager participants names can be randomly drawn from a hat until the desired number of verified participants is achieved.

From the three ways mentioned nomination and members of the same group combined will serve the purpose of recruiting and preparations. Once a group of viable recruits has been established everyone will be called to confirm interest and availability. Time will be given and locations of the focus groups and verbal confirmation will be secured. This will be executed through designing a track invitation phone call including address, box for mailing the confirmation letter and comments box below:

Arrangements for food: At a minimum offer a beverage and light snack. A full meal will be considered but then more time will be added to the entire process so that everyone can finish eating before the group begins. This can also be done after the session. However; it will be decided at the meeting with focus group.

3.2.1.8 Designing focus group questions

Two types of interviews are used in evaluation research: structured interviews, in which a carefully worded questionnaire is administered and in-depth interviews in which the interviewer does not follow a rigid form.

In-depth interviews encourage capturing respondents' perceptions in their own words, a very desirable strategy in qualitative data collection. (Eliot, 2005) suggested twelve questions as the maximum number for anyone group, ten as better and eight as ideal because focus group participants won't have a chance to see the questions they are being asked, so to ensure they understand and can fully respond to the questions posed, questions would be:

- Short and to the point;
- Focus on one dimension;
- Unambiguously worded;
- Open-ended or sentence completion types;
- Non-threatening or embarrassing;
- Worded in a way that they cannot be answered with a simple Yes or No answers (why and how will be used instead).

Three types of questions will be asked in a focus group:

- **Engagement:** questions which introduces participants to and make them comfortable with the topic of discussion;
- **Exploration:** questions get to the meat of the discussion; and
- **Exit questions:** which check to see if anything was missed in the discussions.

However pre- arrangements to see the questions before the interview can be made. This might reduce tension during the interview and create more relation to the interview and more information.

3.2.1.9 Data collection

In data collection researchers want to make sense of feelings, experiences, social situations, or phenomenon as they occur in the real world and want to study them in their natural setting(Terre Blanche, Durrheim and Painter, 2006).This includes interpretative perspective.

To understand it clearly the researcher needs to enter the situation, setting, with care and engage participants in an open emphatic manner. Qualitative research relies on four methods for gathering information:

- participation in the setting;
- observing directly;
- interviewing in depth;
- analysing documents and material culture (Marshall, 2006).

Within the same sentiment (Sullivan,2013) mentioned focus group, content analysis or a combination of various methods as other methods for data collection. Data collection approach should as minimum be consistent with the philosophical, theoretical and methodological assumptions of the study. Data collection should be linked to the research questions (Kakulu, 2009).

Data collection approach can involve the combination of pilot interviews, questionnaire, sampling and focus group interview. While collecting data , the researcher should be aware of his influence on the subject of the research not so much in the sense of a bias

undermining the quality of the results but seen from the perspective of the partners (Flick, 2007).

3.2.1.10 Data gathering techniques

Interviewing: provides the opportunity to know and how the participants think and feel (Terre Blanche, Durrheim and Painter, 2006).

Qualitative research often focuses on a limited number of respondents who have been purposefully selected because it is believed they have in-depth knowledge of an issue the researcher knows little about such as

- They have experienced first- hand to the topic of the study eg. Agriculture;
- They show variation in how they respond to hardship;
- They have particular knowledge or expertise regarding the group under study eg. final year students.

The use of interviews as a data collection method begins with the assumption that the participants' perspectives are meaningful, knowable, and can be made explicit, and that their perspectives affect the success of the project.

Important to know is the kind of interview to be conducted.

- The manner in which it must be structured;
 - In a structured interview, questions should be straight forward or it needs standard questions. The emphasis is to obtain answers to carefully phrased questions;
 - Unstructured interview: people talk in depth about their feelings or experiences.
- Most popular interviews are semi-structured and it is where an interview schedule (list of topics and sub-topics are structured in advance).

The researcher here wants seeks to encourage free and open responses and there may be a trade-off between comprehensive coverage of topics in-depth exploration of a more limited set of questions (Frechtling, Sharp and Westat 1997)..

Interviewing is trying to understand what people think through their speech. Interviewees or informants are teachers rather than subjects to the researcher they are leaders rather than followers in the interview. Interviewees or informants are also described as co-researchers (Mahlomaholo, 2013).

3.2.1.11 setting up interview

- Adequate degree of privacy will be ensured;
- Sound recording will not be disturbed;
- The interviewee will be ensured enough time to spend;
- Their consent will be sought if interviewing is tape recorded;
- The seriousness of what they are saying will be ensured and full records of the interview will be kept and for what purpose recording is used will be ensured.

The venue for focus group is important and should be ideally accessible, comfortable, private quiet and free from distractions. Focus group will be recorded observed by the researcher other than the moderator whose role is to observe the interaction of the group to enhance analysis (Gill, et al.2008). If observers are present they will be introduced to participants as someone who is there to observe and sit away from the discussion.

3.2.1.12 The Interview itself

Considerations during the interview are the strength of the interviewer-participant relationship which is single most important aspect of the qualitative research project.

The quality of this relationship likely affects participant's self- disclosure, including the depth of information they may share about their experience of a particular phenomenon (Knox and Burkard, 2009).

Before an interview takes place, respondents must be informed about details and given assurance about ethical principles such as anonymity and confidentiality.

This give the respondents some idea of what to expect from the interview, increases the likelihood of honesty and is a fundamental aspect of the informed consent process (Gill, Stewart, Treasure and Chadwick, 2008).

This will include both the researcher and the participants familiarise themselves with the interview schedule so that the process appears more natural and less rehearsed.

When designing an interview schedule it is imperative to ask questions that are likely to yield as much information about the study phenomenon and be able to address the aims and objectives of the research. Therefore open ended questions, neutral, and understandable questions will be designed based on the study's central focus is developed before data collection to obtain specific information and enable comparison across cases (Gill,et al.,2008).

The interviewer thus ask all questions of each respondent but may pursue in more depth particular areas that emerge for each interviewee(Knox and Burkard,2009).The protocol in such a semi-structured interview serves as foundation on which the interview is built but one that allows creativity and flexibility to ensure that each participant's story is fully covered.

Furthermore the interview process itself is highly regulated in that questions will be read exactly as written, standard probes will be used, no researcher disclosure will occur such that researchers are neutral and consistent throughout the interview.

Recording and scribble down questions and thoughts while the interviewee is speaking, (Terre Blanche, Durrheim and Painter, 2006, p.299) stated the following reasons that are borne in the mind of the researcher:

I want to learn more about the experiences as the interviewer will:

- Listen more and talk less;
- Make follow up what the participant says;
- Ask when I do not understand;
- Ask to hear more about the subject) Avoid leading questions;
- Ask open-ended questions;
- Follow up and do not interrupt;
- Keep participants focused and ask for concrete details;
- Ask participants to rephrase or reconstruct;

Will not reinforce participant's response but allow silence and the interviewee to be thoughtful.

3.2.1.13 Number of interviews

Differences of opinion exist regarding how many interviews are necessary for each participant. Some qualitative researchers or methods rely on a single interview, whereas others use multiple interview contacts (Knox, and Burkard, 2009).

Single interviews according to (DiCicco-Bloom and Crabtree 2006) is the most prevalent approach which may be preferred when access to participants is difficult or when the topic can be effectively examined in a single interaction. Such interviews may well miss important information.

Multiple interviews in contrast, may foster a stronger relationship between researcher and participant, such that the latter may feel more comfortable deeply describing difficult or emotionally laden experiences to someone with whom he/she had prior contact and established at least some level of trust (Knox, and Burkard, 2009).

Multiple interviews will be preferred in this study since the researcher will be looking at participants listening to them describing information from different perspectives. Interviews have advantages and disadvantages:

Many advantages have been recommended in this chapter and why they are to be adhered to by the researcher. The disadvantages which are overlooked because the aims are to complete the research are:

- Expensive and time-consuming;
- Need well qualified, highly trained interviewers;
- Interviewee may distort information through recall error, selective perceptions, desire to please interviewer;
- Flexibility can result in inconsistencies across interviews;
- Volume of information very large; may be difficult to transcribe and reduce data (Anonymous, 2005).

When making decisions with regard to the number of interviews, researchers should consider their costs and benefits. The greater the number of interviews the greater the costs of the interviewing process in time and money. This means more contact between

the researcher and participants need be established that may facilitate deeper participant disclosure (Knox, and Burkard, 2009).

3.2.1.14 Observation

Observational techniques are the methods by which individuals gather first hand data on programs, processes, or behaviours being studied. They provide evaluators with opportunity to collect data on a wide range of behaviours, to capture a variety of interactions and to openly explore the evaluation topic (Trevithick, 2005).

Observation entails the systematic and recording of events, behaviours and artefacts' in the social setting chosen for the study (Marshall, 2006). This method assumes that behaviour is purposeful and expressive of deeper values and beliefs.

The literature stated that it is fundamental and highly important method in all qualitative inquiry. It is where facial expressions of the informants are seen because these help interpret the verbal responses.

Furthermore, it forces a consideration of the role or stance of the researcher as a participant observer in which case he remains the most essential sensor instrument. Even in-depth interviews observation plays a role as the researcher notes the interviewee's body language and affect in addition to her words (Marshall, p.99).

Observation has advantages and disadvantages:

Advantages:

- They provide direct information about behaviour of individuals and groups;
- Permit evaluator to enter into and understand situation/context;
- Provide good opportunities for identifying unanticipated outcomes;

- Exist in natural, unstructured, and flexible setting.

Disadvantages

- Expensive and time consuming;
- May affect behaviour of participants;
- Selective perception of observer may distort data;
- Behaviour or set of behaviours observed may be a typical (Anonymous, 2005).

3.2.3 Ending the interview

The interview will not exceed an hour, people lose concentration. It should not be driven by time limits: there will be room for questions for anything they want to know. The researcher will be aware of what people say after the recorder has been switched off. Things that might not be obvious from the tape interesting things that were discussed, ideas and additional questions will be written (Marshall, 2006).

Researcher could also contact those who choose not to take part and ask them what led to that decision and what might have enabled them to feel safe enough to join in the research (Knox and Burkard, 2009). At the end the researcher will thank all participants for their time and ask them if there is anything they would like to add All interviews will be tape recorded and transcribed verbatim afterwards as this protects against bias and provides a permanent record of what was not said (Gill, et al.,2008).

- May affect behaviour of participants;
- Selective perception of observer may distort data;
- Behaviour or set of behaviours observed may be a typical (Anonymous, 2005).

3.3 Ethics and ethical consideration

Ethics refers to conforming to the standards of conduct of a given profession or group, these enables the researcher to know or aware of general agreements among researchers about what is proper and improper in the conduct of scientific inquiry (Babbie, 2007).

Research ethics primarily deals with the interaction between researcher and the people he studies (Mack et al., 2005). Agreed-upon standards for research ethics help ensure that researchers explicitly consider the needs and concerns of the people they study, that appropriate oversight for the conduct of the research takes place, and that a basis for trust is established between the researcher and study participants.

Broadly said, ethical research is about doing well and avoiding harm to those participating in the research. Trustworthiness for the study will be an on-going process (Merrian, 2015). Three core principles form the universally accepted basis for research ethics (Mack, N., et al. 2005).

- respect for persons requires a commitment to ensuring the autonomy of research participants and where autonomy may be diminished, to protect people from exploitation of their vulnerability. The dignity of all research participants must be respected;
- beneficence requires a commitment to minimising the risks associated with research including psychological and social risks, and maximising the benefits that to research participants accrue;

- justice requires a commitment to ensuring a fair distribution of the risks and benefits resulting from research. The people who must benefit from the knowledge should be the ones who are asked to participate.

3.3.1 Informed consent

Informed consent is a mechanism for ensuring that people understand what it means to participate in a particular research study so they can decide in a conscious, deliberate way whether they want to participate. It ensures respect for persons during research (Mack, Woodsong, MacQueen, Guest, and Namey, 2005). The first task in achieving informed consent is to inform people about the research in a way they can understand. This can be a multistep process.

- community might be informed about the research;
- information sheets, advertisements or brochures or local newspapers or radio stations to do the report on the research or the researcher might spend.

a week or two talking with people one-to one. Any participation in the study should be voluntary (Babbie and Mouton, 2007).

The best way is to prepare a mutual contract which explains the purpose of the research, the expectations from the participants (eg. to give an interviewee) the procedure with the data (how long it is to be stored, who will have access how is anonymity guaranteed). This would be signed by the researcher and participants and should include a possibility of withdrawing consent (Flick 2007). In the case where a participant would not sign a contract it would be clearly defined how the informed consent can be guaranteed as a principle and what kind of substitute would be acceptable.

The researcher could contact those who choose not to take part and ask them to feel safe enough to join in the research. Understanding the basis for such decisions may help the researcher reduce the likelihood of later refusals and may also render more effective the preparation future participants receive so that they feel safe taking part in the study even when its topic may be quite difficult (Knox and Burkard, 2009).

In general, data collection activities that require more than casual interaction with a person require individual informed consent from that person, regardless of whether community-level permission exists. Such activities include in-depth interviews and focus groups. The person should be told:

- the purpose of the research;
- what is expected of a research participant, including the amount of time likely to be required for participation;
- expected risks and benefits, including psychological and social;
- the fact that participation is voluntary and that one can withdraw at any time with no negative repercussions;
- how confidentiality will be protected;
- the name and contact information of the local lead investigator to be contacted for questions or problems related to the research;
- the name and contact information of an appropriate person to contact with questions about one's rights as a research participant(Mack, et al.2005).

Protection from harm: Research should not expose participants to undue physical and psychological harm (Leedy and Ormrod, 2010) Participants will not be subjected to unusual stress, embarrassment or a loss of self-esteem. In cases where the study

involves psychological discomfort, participants must know this before debriefing or counselling must follow (Babbie and Mouton, 2007).

To anticipate this situation (Trevithick, 2005). It is important to compile an information sheet in the local language, explaining:

- who the researcher is;
- the purpose of the research,/interview;
- whether they have to take part;
- what will happen if they do not want to participate;
- what happen if they agree to participate;
- how long will it take;
- how confidentiality will be assured;
- what they will get out of it;
- risks associated with their participation;
- approximate data completion and anticipation;
- how the information gathered will be used; and
- what it means to participate in a particular research study so they decide in a conscious, deliberate way whether they want to participate This is a toll for ensuring respect for persons during research (Mack et al. 2005). Any participation in the study is voluntary (Leedy and Ormrod, 2005).

Right to privacy: Participants' right to privacy must be respected. Anything discussed between the researcher and the subjects will be kept in strict confidence (Berg, 2007:79 cited by Sullivan, 2013). Quality participants' performance must strictly be confidential.

Therefore participants will be given codes without names in a document. If more information is about a particular participant he will be given a pseudonym to assure anonymity (Leedy and Ormrod, 2010). Within the same sentiment (Sulliva, 2013) argued that it is important to change the locations, if necessary to allow privacy.

Confidentiality refers to the protection of subjects' identity in survey. The researcher can identify a given person's responses but promises not to do so publicly (Babbie, 2007). Sharing the same sentiment is (Mack, et al., 2005) that data collectors should maintain clear boundaries between what they are told by participants and what they tell to participants. This means ensuring that particular individuals can never be linked to the data they provide.

This will mean that the researcher must not record identify information such as names and addresses of people the researcher meet during participant observation. Telephonic contacts regarding the interview will not be included in the field notes that are entered into the computer. Protecting participants' confidentiality also requires that a researcher does not disclose personal characteristics that could allow others to guess the identities of people who played a role in the research (Mack, et al., 2005).

Participants' motion for being interviewed may be is to gain from the experience , possibly finding the interview interesting and awarding, validating of personal experiences and enabling them to altruistically help others.(Knox and Burkard, 2009).

In this chapter, the research methodology on data collection has been unpacked. This includes interpretivism in particular, research design for data collection and ethics consideration. The next chapter will deal with the execution of data collection, interpretation and data analysis.

CHAPTER FOUR

PRESENTATION, ANALYSIS AND INTERPRETATION OF DATA

4.1 Introduction

The purpose of conducting a qualitative study is to produce findings (de Vos, Strydom, Fouche, and Delport, 2011 Patton 2002:432 cited in de Vos et al., 2011 p.397) stated that qualitative analysis transforms data into findings. This involves reducing the volume of raw information, sifting significance from trivial, identifying significant patterns and constructing a framework for communicating the essence of what the data reveals.

Data analysis is the process of bringing order, structure and meaning to the mass of collected data. In reality, qualitative data analysis is messy, ambiguous and time consuming, but is also a creative and fascinating process.

Qualitative analysis is the “non-numerical examination and interpretation of observations, for the purpose of discovering underlying meanings and patterns of relationship” (Babbie, 2007). The term “data” refers to the rough materials researchers collect from the world they are studying; they are the particulars that form the basis of analysis. Data includes materials the people doing the study actively record, such as interview transcripts and participant observation field notes.

Data grounds the researcher to the empirical world and, systematically and rigorously collected, links qualitative research to the forms of science.

Data involves the particulars the researcher needs to think soundly, and deeply about the aspects of life to be explored. Qualitative data analysis is, first and foremost, a process of inductive reasoning, Thinking and theorising which certainly is far removed from structured, mechanical and technical procedures to make inferences from empirical data of social life (de Vos, et al., 2011).

A focus group interview was conducted at Sefikeng TVET College in Phuthaditjhaba. Sefikeng was a former College of Education before 1994. It is about 47 km from Harrismith. Furthermore, Phuthaditjhaba is a former homeland or Bantustan or Bantuhomeland of Sotho speaking people under the leadership of TK Mopedi. The word *Phutha*- means bring together: and *dithjaba* means different groups. South Sotho and Zulu speaking people are found here.

The focus interview was discussed in English, South Sotho and a mixture of English and Sotho. Fortunately it was not a stress since South Sotho was understood to the researcher.

A focus group interview was divided into two phases:

Phase one was the visit to the plot where farm implements are kept and plots of mielie-land were seen. The following implements were seen: tractors, ploughs, jojo tanks, sower, manure, mixture of cattle food, sprayer, boreholes; and discs, but no documents were available since the institution is grappling with the requirements.

Phase two: Face group interview

The data collected was descriptive, interpreted, coded and analysed.

4.1.1 Demographic Data information

(A) Gender:

Male:

= 43%

Female:

57%

=

Total

=

100%

Women empowerment is making inroads in agriculture and women wants to apply their skills since they are no longer recognized just as house wives.

Business in agriculture is now possible for men and women, working together or separately, promoting competition and the creation of job skills.

(B) Age: 20-30

= 50%

30 +:

=

=50%

Total

=

100%

Fifty percent of each gender is between the ages of 30 and above. This is indication that everyone is concerned about youth unemployment which does not go with age. This is also an indication of the need for skills to youth which could help sustain lives in agricultural sector.

(C) Marital status:

Married: Not married Other

=00% = 00% =00%

Total

=100%

All of the respondents (100%) are not married; this is a serious indication of the impact of un-employability and poverty in the social lives of the community. It could be assumed that it is because life is unthinkable without income.

(D) Qualifications:

Diplomas

=66,7%

Degrees

: =33,3%

Total = 100%

The low standards in qualifications (Diplomas) retains the number of low qualified teachers in agriculture when highly qualified ones are needed and creates the impression that it is the only requirements at FET Colleges. At the same time this percentage of young teachers is an indication of interest youth now show in agriculture: with knowledge from research; they would teach students to unravel and fill gaps of possible jobs that can result in a value chain formation in agriculture.

(E) Positions

HOD

= 33%

Lecturers

=67%

Total = 100%

The percentage in positions is an indication that teachers love agriculture. The perception that agriculture is an alternative option after university endeavors have failed is not true.

(F)Location:

Students Urban
=100%

Lecturers Urban
=100%

Total 100%

=

All members of the community of Phuthaditjhaba have lived in urban areas since 1994, but in the Bantu homeland which could not promote job creation skills except through migration. With skills, the FET College could promote jobs for the people living in that community.

(G) Language:

Students South Sotho
=100%

Lecturers South Sotho
=100%

Total = 100%

Since all the respondents speak South Sotho and share a common culture, this will make food production easier. It is important, however, that this culture be influenced by other groups with different perceptions so that the existing knowledge about agriculture can be challenged through competitions with other groups. English is used as the medium of communication for search of information.

4.1.1 Face-to-face group interviews

The face-to-face group interviews started first with students. This was done in agreement with the team to give students free expression in the absence of their lecturers.

(1) Experience in agriculture

The lecturer (Coordinator) had worked for more than 20 years at the FET College and held a diploma in agriculture. The lecturer was an examiner in one of the examination papers in agriculture. He discharged duties when the farm manager was not around on the farm. He interacted with farmers at auctions, abattoirs and selling feedlots, and sold cattle to people when they carry out rituals like weddings, funerals and celebrations. He also provided other people with information pertaining to their livestock.

Showing passion for agriculture the lecturer kept livestock and practiced what he preached to the students and what is required of the curriculum. He interacted with some neighbouring farmers to get access for practical by his students in some aspects of agriculture. Some information obtained from books needs to be executed on the ground but the FET College does not have a plot in the location. This means that some

of the information will be forgotten by the time students reach the areas of practice after graduation.

(2) Curriculum

The curriculum is composed of what are regarded as core subjects who included the following:

- Chemistry (which includes physical sciences) helps in the studying of soils, plants and animals;
- Maths/Maths Lit. helps in calculations of money during trading and making measurements;
- Animal husbandry;
- Soil and plant production;
- English as an international communication medium.

Unfortunately the FET College is not linked to any university which could direct it with more information in agriculture Lecturers should also upgrade themselves to be on par with the latest developments. This on its own will promote job creation skills since research is important to interpret and update farmers about the changing world and climate and how that affects the farmer's production. A lot more has to be done by colleges to address the mismatch at labour markets. The curriculum therefore has to be designed to accommodate the dreams of students from primary schools upwards as stated in chapter two of this study (Lewis, 2009 and Rasool and Mahembe, 2014).

(3) Promotion of job creation skills

This is fundamental to the main question of this study. This is also in line with the theory of the study stated in chapter one which posited:

- the sense of accountability amongst youth;
- facilitation of skills acquisition towards employment and creating enterprises;
- making a sustainable impact on countries and their economies; and
- promote return of investment for investors under BBBEE codes.

The College should employ the very students who graduated so that they can see and practice how they would monitor their businesses on their own and get help and advice at an early stage.

It is believed that fruit and vegetables will be sold to passers-by, and all possible agriculture products that are processed in towns and cities would be restricted to farm industries. This will be the dawn of small businesses. However, the College is underfunded and it is not known where the money will come from to promote agriculture in this area.

(4) Problems in agriculture

Land and financial aid issues go way back long before 1994. However, a plot outside the location had been allocated as a site for the College where all possible requirements of the institution will be fully executed. However, farm implements were out of date and needed maintenance. This is an indication that if nothing is done due to lack of finance, agriculture will still not be promoting job skills creation which is a dire need of youth. Without land, a sense of accountability is being inhibited. The government's distribution of land is too political, not aimed at solving youth unemployment since it does not allocate plots to FET College students to execute their knowledge after graduation. Even political parties who are vocal in land redistribution do not invite students from colleges to exercise their knowledge at the farms they have acquired.

(5) Exposure to job opportunities

Agriculture is regarded as fundamental to job opportunities and business exposure. The FET College interacted with farmers for students to be introduced to artificial insemination in animals, crop rotation, and mixture of seeds. Students at different levels are introduced to poultry and egg classification, pig farming, and dairy farming.

However, internet access is lagging since some of the questions pertaining to job opportunities were directed to the researcher. Motivation by inviting former students to share their experiences with students at the College is not encouraged. This reduces the beginning of value chain formations which is one way of creating job skills as stated in chapter one of this study

(6) Attraction to agriculture

It is true there is business in agriculture; unfortunately this is realized at a later stage since students took agriculture at College due to unemployment. This is an indication of the need for restructuring in the curriculum which develops skills in primary schools and encourages students to perform to the maximum in their choices-. Taking up the option to study agriculture at a later stage does not dismiss the perception that agriculture is for low achievers. This then may not reduce the mismatch between the labour market and productivity.

(7) Equipping students to create jobs

To equip is to prepare someone to deal with whatever is needed in a particular situation. Unfortunately FET Colleges, not linked with private sector, do not provide curricula, train students and introduce them to the type of work they would be expected

to do after graduation. Students feel equipped to create jobs since they are flooded with information at the institutions where they have studied.

Their inspiration seems to be based on the status of business imagination. However, no link in the form of feedback from their predecessors was mentioned. Poultry cohorts formation and some organisations to be formed to update the community about agriculture were highlighted as indication of well-equipped in agriculture.

This question indicated uncertainty as to how well equipped they were since it did indicate that they were aware of the problems faced in agriculture. Again some questions were still asked of the researcher. Students needed to be encouraged to see the community as the market from which they would produce and their production according to requirements.

It was also easy to doubt their confidence, and ability since there was no production they could claim to exhibit their achievements. They still have to be trained in the field instead of training others, introducing the community to new technology which indicated gaps in the study. The literature stated that they are unproductive within the labour market and this causes the company unnecessary expenditure and loss.

(8) Requirements to improve agriculture business

Skills, training, helping needy people and research were seen as priorities in improving agriculture business. Skills must be adapted to changing climate and make soil more productive to different crops throughout the year and increase production. The products need to be processed made available and be sold within the immediate surroundings. This will increase job creation skills and job availabilities.

Skills needed are those that would unpack all possible jobs in agriculture so that each student is able to work independently and develop his/her business and to hire

employees. Research findings, can determine the shortfalls in agriculture. This would open jobs since youth is expected not to maintain the traditional methods but to bring innovations where all possible agriculture business are explored and made available to individual agriculture farmers.

4.2 Conclusion

The chapter presented the research data that was collected from the informants and through the tape recorder, and analysed it to reveal the trends in the enhancement of agriculture vocational programme and the promotion of job creation skills in the Free State Further Training College. The demographic data was presented as well as sub-research questions. The findings were discussed and concluded by the researcher in this chapter. In the following chapter; the summary, findings and recommendations will be presented.

CHAPTER FIVE

SUMMARY, FINDINGS AND RECOMMENDATIONS

5.1 Introduction

Data obtained from the informants was appropriately analysed and interpreted. Information may not be viewed to be reliable enough to provide a meaningful conclusion but it can be used to get some idea of the respondents' perceptions and responses in this regard. This has also given the researcher a new picture in relation to the literature. In the following chapter, the summary, findings and recommendations will be presented.

The previous chapter dealt with the presentation and analysis of the results in the study where the results were presented, analysed in accordance with the guidance in questions identified in chapter one of the study (cf.1.3.1). In this chapter, the findings were summarized, by drawing conclusions and assessment of agriculture educational programme and the promotion of job skills creation the Orange Free State (OFS) FET College.

In the light of the researcher's findings some recommendations are made and a framework for Agriculture technical Vocational Educational and Training in the OFS FET College for effective implementation of agriculture curriculum. The questions are restated below.

5.2 Restating the research problem

The study was triggered by the situation at ATVET Colleges which is found to produce mismatch and unproductive students at labour market; the trail of low skills partially educated and jobless youth; the outdated and irrelevant curriculum that still focus on farm production rather than encompassing all segments of agricultural value chains and entrepreneurships and agriculture business processing market.

Although agriculture forms the basic food security of every country, very little has been done to the curriculum to equip the poorest and most vulnerable individuals and households in rural areas. The following questions were guiding the investigation in the curriculum of FET College.

- What agriculture skills programme is offered at the FET College?
- How job creation skills are promoted?
- What challenges face FET Colleges?
- What are the implications of the challenges face FET college for the Agriculture Vocational Education programme and the promotion of job creation skills?

The above guiding questions presented the situation in which the Sefikeng FET College operated to promote job creation skills and match the needs at labour market. There had been no decrease in youth unemployment. The curriculum was rather academic than comprehensive. This state of affair indicated above, called for investigation of the implementation of TVET programme and the promotion of job creation skills in FET colleges in rural areas.

5.2.1 Main research question

The study was guided by the following main question: How agriculture educational programme promote job creation skills in the OFS FET College?

5.2.2 Sub-research questions

In answering the main research question, the study sought to answer the following sub-research questions discussed below:

5.2.2.1 Programme /Curriculum

The government copy of a curriculum could not be browsed through at Sefikeng FET College because it was not available for perusal. However, it was believed that there is a guide followed in teaching. The following courses were regarded as core subjects in agriculture to promote job creation skills: Physical science, which provides information in agricultural science; Mathematics, which helps in currency; animal husbandry which helps in animals like breeding and plant production which provide understanding in the soil; English, which is important for international communication. Some of the books are written in Afrikaans.

This is indication that agriculture in the Free State is Afrikaners dominant, so sometimes students at the college will be expected to know a bit of the language in order to get knowledge needed at farms.

The study found that the curriculum is not credited by school industry operation. It was also found that it does not provide for life-long learning skills to workers. The system of vocational education should consist of education in vocational schools and vocational training. In India, (cf.102) VET programme was introduced for the creation of employment opportunities and imparting suitable skills for self-employment in rural areas and unorganized sectors. This has improved employment. Also top up through (training formal and non-formal) and up skilling the target set by the government resulted in improvement of skills in agriculture.

In Korea, secondary and post-secondary schools paid off made sure industries get people who matched the job they were trained for. The curriculum was credited by strong school industry cooperation. As a result, graduates are highly valued with

employment trade. Also, life-long learning skills needed by technical workers were provided.

In Singapore, colleges served the needs of factory driven economy to current status of serving the needs of globalized and diversified economy.

5.2.2.2 Problems

Education department knows little of agriculture. FET colleges are feeding people into the industry; it does not understand educational needs. Performance is below par because education has become superfluous. It does not teach agriculture as science and is not aimed at training artisans. Agricultural schools are expensive. FET colleges are often regarded as second choice schools this is indicated in a rather high drop-out and low completion rate.

It was also found that there is a recurring tension between the Department of Labour and the Department of Education. The Department of Labour was custodian of the human resource development strategy and had been interested in the FET colleges. However, the Department of Education had a different version for colleges, namely that the colleges should provide a general vocational programme to 15-19 year old learners.

Handful agricultural schools remain islands of excellence while others are on a downward trend. Agricultural education does not offer agriculture as a science and is not aimed at training artisans. A recurring issue with agriculture schools they are expensive to maintain. It was also found that it was difficult to source, qualified teachers young staff equipped to teach agricultural science management and

technology. It was also found that there is a scarcity of skills in agriculture such as book-keeping farm entrepreneurship, resource management and record keeping.

Because of the above state of affair the quality of education at FET colleges is below standard.

5.2.2.3 Challenges face FET Colleges

A handful of agricultural schools remained islands of excellence while others are a downward trend. Sourcing qualified staff equipped to teach agricultural science, management and technology is a recurring issue. The department does not have an in-depth knowledge of agriculture. FET colleges are expensive incurring additional costs such as vehicle maintenance and repairs, fertilisers and machinery. Scarce skills in agriculture: It was found that farmers lacked skills in a host areas: farm management and entrepreneurship, resource management and record keeping. Because of this quality of education at public FET colleges is below standard.

5.2.2.4 Implications

Literature suggested areas in need of further study made recommendations on appropriate modeling framework to inform questions on the form of agriculture vocational programme and the promotion of job creation skills at Sefikeng FET College. South Africa in terms of Declaration signatory undertook to develop country specific measures of poverty by 1996. In terms of the United Nation Millennium Development Goal

Is South Africa had obligations to halve poverty and un-employment by 2015. The Johannesburg Plan of Implementation (JPOI) arising from World Summit on Sustainable Development in 2002 called for the building of rural, infrastructure, diversifying the rural economy and improving transportation and access to market information and credit to support sustainable agriculture and rural development.

5.3 Summary findings

The section presents the summary findings focusing on each of the research sub-questions namely: what agriculture skills programme is offered?; how is job creation skills promoted?; what challenges face FET College?; and the implications of the challenges face FET College for the agriculture vocational education curriculum. The section closes by providing a summary of what is proposed or should be done to enhance the implementation of AVE programme and the promotion of job skills creation at the Sefikeng College.

5.3.1 Curriculum

The study has found that the system of vocational education does not consist of education and vocational schools and training. The study found that in India VET program was introduced for the creation of employment opportunities and imparting suitable skills for self-employment in rural areas and unorganised sectors. This education was further topped up through training formal and non-formal and up skilling the target set by the government in improving of skills in agriculture.

It was also found that in Korea, secondary and post- secondary schools made sure industries get people who matched the job for which they were trained. Therefore its graduates were highly valued. It was also found that in Singapore, colleges were

serving the needs of factory driven economy to current status of serving globalized and diversified economy.

5.3.2 Problems

The study found that very little is known by the (DHET); as a result performance is below par. It was found that agriculture colleges are expensive and little funds is allocated to so many things that colleges need. This is true for Sefikeng FET College which has up to date using former Teacher Training College buildings right in the location where the place is allocated for residential needs. The question is what further steps did the management take? how can they measure their quality of students at labour market? And the answer is they cannot because they had never been much exposed to practicals and share ideas with fellow students at other agricultural colleges. It was also found that due to the Department of education policy vocational education is provided up to 19 year old students. This is true to the statement that agriculture is never offered as a science at schools and not aimed at training artisans.

The study also found that only handful agriculture colleges are islands of excellence while others are downward trend. It was also found that there is scarcity on skills in agriculture such as bee-keeping; farm entrepreneurship; resource management to mention a few. At Sefikeng College the mention by respondents was made when asked about the types of business in mind after graduation. These were: poultry, pig farming, and dairy farming.

At Sefikeng College, it was found that land is a problem. The lecturer stated that he kept his livestock at the municipality place and had to keep a limited number. Here he cannot execute some of the practicals in attempt to minimize the transport costs for

students. Students also raise their concern about small businesses they wanted to start but because of space they cannot.

5.3.3 Challenges

At Sefikeng College it was found that since colleges are expensive, incurring additional costs, there was no vehicle that could transport students from campuses to areas of practice since the college is inside the location all stuff that is used is old. It was also found that the college since 1996 is been battling to find a plot and a site. It has also been found that agriculture is offered by old lecturers and not joined by young staff. The college then is face with a challenge to influence their outgoing students not to divorce agriculture when green pastures are found.

However, from the interview it was heard that a site has been allocated and classes for the institution under construction. The lecturer promised that all envisaged businesses will be started and the products will be will be processed according to the people's needs. It was also found that access to internet is important. This was clear when after the interview students asked for clues that can help start their business and the problems of getting sponsors. Sourcing of new stuff and technology is a challenge at Sefikeng and with little funds from the Department, it looked very uneasy to implement the findings and recommendations effectively.

5.4 Conclusions of the study

5.4.1 Curriculum

At Sefikeng FET College it was found that promotion of job creation skills are very slim since it is based on traditional production. Students are only exposed to neighbouring

farmers to acquire agriculture tools. This means that money has to be spent on transport to interact with different farmers and institutions at different places for hands-on the practices. This limits their scope of exposure to the functioning of different farm implements.

TVET is like all education a product of a society which developed and emerged. The study revealed that Colonial and apartheid has shaped not only the design of the system but also the social role and status of this form of education. Having been British colony South Africa in its social make-up traces of the particular British class-based of vocational education.

The fact that Africans were permitted to become apprentices in 1980's and colleges remained racially segregated meant that apprenticeship system and consequently the link to industry had become weak (Wedekind, 2010). It is also found that the White colleges operated in a semi-autonomous model of governance with a college council that provide links to local industry, while the Black colleges and training centres were centrally controlled by their appropriate department along with the same schools. The study established also that AVE programme implemented was driven by (DHET) in terms of National Policy Framework for Teacher Education which state that some professional development activities are state driven. However teachers had to follow the programme as prescribed by their employer though these professional activities were found traditional mode of teaching.

It was found that agriculture vocational programme is not offered at primary and secondary schools. This was deduced during the interview when one respondent stated that he/she was inspired after completing matric. In fact agriculture education should start at primary levels and grow with those children who have shown interest in

it. It was also found that TVET programme introduced is not for creation of employment opportunities and imparting suitable skills for self-employment in rural areas and unorganised sectors. It was found that secondary and post-secondary schools do not ensure the quality of people needed in the industries, match the job they were trained for. The curriculum was not credited by school industry operation. Life-long learning skills in agriculture was lacking in the FET College. The FET Colleges did not serve the needs for factory driven economy to current status of serving the needs of globalized and diversified economy. As a result graduates are low valued with employment trade. Youth skills development and replacement is the theory of this study (Tikkun, 2005); Traditional production has not been replaced by modern technology, old people still can transfer their traditional skills to the youth and cannot match modern science with technology. Technology needed youth as future farmers will help them adjust to the changing world in their life style so that they can reduce youth un-employment

5.4.2 Problems

The FET Act of (1998) provides framework for the FET system for the establishment, governance and funding of public FET colleges all aimed at redressing past discrimination and enabling access to the disabled and. This integrated approach was never realized. Colleges were initially meant for training White skilled working class. The National Qualification Framework (NQF) which brings together different sectors of education was structured in a way closely related FET school level education with the last years at school seen as further education. Driven primarily from a training perspective the process of the creation of NQF had its origins in the labour movement. Since the integrated approach was never realized the study could not establish the reasons thereof. But since the Department of Labour is not linked with the FET

colleges, it shows that skills in industries are different from what the students at FET colleges are learning and trained for (mismatch). The problem of job losses which the Department of Labour cannot avoid is an indication that jobs opportunities decreasing and not opening any space for youth to occupy. Job opportunity is a national problem that affects the nation of South Africa.

5.4.3 Challenges

South Africa has ten FET colleges offering vocationally directed programmes and eleven agriculture colleges that offer qualifications up to a degree level. However, the state of agriculture in colleges is generally poor inspite of R157, 8 million that was allocated by the government in 2010 to improve agriculture colleges. Many teachers have little practical or industrial experience and so cannot transfer this to students. Students get degrees but they do not get training until they are placed. Distances between campuses and lack of or poor infrastructure, poorly resourced campuses, lack of policies and limited courses offered are key challenges face in rural areas. This situation inhibits ATVET operation and the promotion of job creation skills at colleges.

With regard to little knowledge about agriculture by teachers, this could have been addressed. Agriculture should begin at primary level where young teachers would be able to influence young children and identify talents in agriculture as a career. If young teachers get in numbers in agriculture, the perception that it is for low achievers can fade away. However some teachers got in the profession not that they like it.

The study has found that funds allocated to colleges are sometime diverted to other departments for what reasons the study could not establish. This makes the situation even worse when it comes to the purchasing g of stuff.

5.4.4 Implications

The study have been established to find out whether at Sefekeng FETCollege, the management team understand and is able to identify areas that need further improvement.

This study was set to make recommendations on the form of agriculture vocational programme and the promotion of job skills creation at Phuthadithjaba.

5.5 Recommendations

On the basis of the findings of the study the following recommendations are made to the department regard to the implementation of agriculture vocational education programme and the promotion of job creation skills at Phuthadithjaba District in OFS province.

5.5.1 Adoption of Youth skills development and replacement theory by Tikkun 2005.

The adoption of this theory will assist youth in breaking the cycle of poverty at Phuthadithjaba as it will facilitate skills acquisition towards employment and enterprise opportunities. It will make sustainable impact on a province and economy and ensure a return on investment for investors under the (BBBEE). This is aimed at decreasing the number of un-employment.

How then will the theory be adapted to promote job creation skills at the FET College?

(A) 5.5.2 Fast tracking youth unemployment model (cf.119) and

5.5.2.1The Integrated system of rural skills development (Adapted)

The integrated system rural skills development (adapted) model by Asian Development Bank (2008) and Lewis (2009) can be implemented in fast tracking youth unemployment and promote job creation skills in the FET colleges. A model is a

strategy designed to achieve a long term plan or the scientific activity which is aimed at easing the feature or understand the feature of the world easier. Agriculture yields positive results at macro level. According to Lewis the above illustrated typology on page (118) of this study can help developing countries to structure their TVET systems in line with each stage of their economic developmental stage (Rasool and Mahembe, 2014).

According to the typology education policy should be structured firstly through introduction of agriculture education at primary and secondary schools where most learners will be motivated to love agriculture science; with youth included in decision making it will make them understand the world better than to take decisions which impact them negatively. Access to TVETs and universities will enable them a fullest exploration in agriculture.

Skills development strategy for improvement is a challenge to make the national development strategy which is currently managed by (SETA) Sector Education and Training Authority work more effectively to support a more competitive business sector efficient state. Unfortunately, the SETA's are not delivering the promised mandate of the government (Ramdass, 2007).

Employment policies, strategies, and national action plan are avenues to address micro and macroeconomic factors impacting youth employment (ILO, 2005). These can be implemented through:

- Helping out primary and secondary schools (cf.116);
- Motivating youth to remain in rural areas to build valuable livelihoods (cf.116);
- Agricultural science for learners (cf.116);

- Partnership to promote decent employment for rural youth ((cf.116);
- Youth inclusion in decision making concerning them (cf.119);
- Training youth trainers (cf.121);
- Understanding current methods (cf.122);
- Access to training and technology (cf.122); and
- Developing education policy-making capacities (cf.125);

(B) 5.2.2 Best examples from selected countries

- Benin (cf.2.9.1p.134).
- Ethiopia (cf.2.9.2p.135).
- Namibia (cf.2.9.3 p.136).
- Sierra Leone (cf.2.9.4 p.134).
- Songhai training centre (cf.2.9.5 p.137).

5.6 Achievements of Research Objectives

5.6.1 Research objective 1: Curriculum

The objective is achieved in the study as it was found that agriculture vocational education is not for the creation of employment opportunities and imparting suitable skills for self-employment in rural areas and un-organized sectors. The curriculum is not credited by school industry operation. Long-life learning skills to workers are lacking in agriculture.

5.6.2 Research objective 2: Problems. This was achieved since it was found that in Education Department little is known about agriculture. Maintaining agriculture institutions are expensive hence they are not productive to the required standard.

5.6.3 Research objective 3: Ascertaining challenges

The objective was also achieved. It was found that a handful agricultural schools remained islands of excellence while others are downward trend. Sourcing qualified staff, equipped to teach agriculture is a recurring issue. It was also found that lack of policies, financial aid for disadvantaged students remains a challenge.

5.6.4 Research objective 4: Implications

The objective was achieved. On the basis of the findings, the areas in need of further study recommendations on appropriate modeling framework to inform the promotion of job creation skills at Sefikeng College have been achieved.

5.7 Recommendations

- (1) Adoption of fast track youth integrated system of rural skills development model.
- (2) Adoption of India and Korea education system.
- (3) Establishment of Agriculture schools at primary and secondary levels.
- (4) Formation of agriculture value chains.
- (5) Youth inclusion in agriculture decision -making.
- (6) High qualified teachers.
- (7) More funds in agriculture schools and FET colleges

5.8 Summary

In this chapter, the researcher has presented the summary conclusions of the study that was conducted at Sefikeng FET College.

It is hoped that the recommendations will assist the department of Higher Education and Training to transform agriculture from production rather than encompassing all segments of agricultural value chains and entrepreneurs, agriculture processing market. At present, the production form is being implemented as the framework by farmers, implementing the recommendations will place the province at an advantage as compared to other provinces. The recommendations might be extended to other provinces as well. It is also hoped that the fast track youth integrated system of rural skills development model purported in the study, will produce effective farmers and high performance in the production of food in the Phuthaditjhaba District.

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APPENDICES

Appendix 1: Permission letter

P O Box 2529

Ladysmith

3370

2017 April

Cell: 0843112775

The District Manager of Higher Education

Moremoholo and -Motloun Street

Setseng Phuthadithjaba-

Harrismith/Kestel-

Sir/Madam/Miss

Re: Permission to conduct a survey research for academic purposes: Mr MW Thwala Student number: 201415694

I am a part-time student doing the degree of Education (PhD) at the University of Fort Hare. Since part of the research will be conducted in a target group/face-to-face interview, permission is herewith requested to visit the FET College in Puthadithjaba (Qwaqwa) to conduct this research. The title of the research is; **Agriculture Vocational Education programme and the promotion of job creation skills in the FET College**. Arrangements for the visit will be made with the management of the institution prior to the actual visit. This will not exceed two hours. The envisaged time is one hour and it is not intended to interference with the normal functioning of the College. For verification please contact my supervisor, Prof. E.O. Adu, at the University of Fort Hare, contact number: 0849251948

Yours faithfully

Thwala MW (Student).

Appendix 2: Information sheet

Dear participants

I am Thwala Mr M.W. a student at the University at Fort Hare doing a PhD degree in the Faculty of Education. The title of the degree is: Agriculture Vocational Education programme and the promotion of job creation skills in the OFS FET College. The purpose of the study is to find more about this topic in the College since it contains the source of information.

Should you wish to participate in the interview, your full participation will be of high value and you are requested to give your best since your information is of great importance in this research. NOTE. This is voluntary so there will be no penalty if you wish to withdraw. Your confidentiality will be ensured; you will remain anonymous until the end of the interview and nowhere else will your identity be required.

The interview should not take more than an hour. The information gathered will be to the benefit of the College and the community at large. This gives you a clear picture so that you can make a good decision. If you agree, I will meet you in the interview.

Thanks you in advance for your participation

MW Thwala (Student)

Contact numbers:

Student: 084 311 2775

Supervisor (Prof EO Adu): 084 925 1948

Appendix 3: Consent to participate in the focus group

Dear Participants

You have been asked to participate in a focus group arranged by the University of Fort Hare, Department of Education. The purpose of the group is to try and understand the Agriculture Vocational Education programme and the promotion of job creation skills at the FET colleges.

The information learned in the focus group will be used to encourage students to explore all avenues that can promote jobs in the agriculture sector thus reducing youth unemployment.

You can choose whether or not to participate in the focus group and stop at any time if you do agree to participate. Although the focus group will be tape recorded, your responses will remain anonymous and no names will be mentioned in the report.

There are no rights or wrong answers to the focus group questions. We want to hear many different viewpoints and would like to hear from everyone. We hope you can be honest even when your responses may not be in agreement with the rest of the group. In respect for each other, we ask that only one individual speak at the time in the group and that responses made by all participants be kept confidential.

I understand this information and agree to participate fully under the conditions stated above:

Signed:-----

Date:-----

Appendix 4: Focus group confirmation letter

Dear Participant(s)

Thank you for your willingness to participate in our focus group. We would like to hear your ideas and opinions about Agriculture Vocational Education and the promotion of job creation skills at the FET College. You will be in a group of seven participants. Your responses to the questions will be kept anonymous. Refreshments will be provided after/before the beginning of the session. The date, time, and place are listed below.

Date -----

Time-----

Place-----

If you need directions to the focus group or will not be able to attend for any reason, please call: Mr MW Thwala at 084 311 2775. Otherwise, we are looking forward to seeing you there.

Yours sincerely

Researcher: MW Thwala

Appendix 5: Focus group introduction

Venue: Seating arrangements: circle.

Welcome:

Thanks for agreeing to be part of the focus group. We appreciate your willingness to participate.

Introductions:

Researcher and the coordinator

Purpose of the focus group:

I have been asked by the University of Fort Hare, Faculty of Education, to conduct the focus group. The reason for having the focus group is to find out about Agriculture Vocational Education and the promotion of job creation skills at the FET colleges. I /the university need(s) your input and want you to share honest and open thoughts with us.

Ground rules:

1) We want you to do the talking.

We would like everyone to participate. I may call on you if I haven't heard from you in a while.

2) There are no right or wrong answers

Every person's experiences and opinions are important.

Speak up whether you agree or disagree.

We want to hear a wide range of opinions.

3) What is said in this room stays here

We want everyone to feel comfortable sharing when sensitive issues are raised.

.4) We will be tape recording the group.

We want to capture everything you have to say.

We don't identify anyone by name in our report. You will remain anonymous.

Appendix 6: Focus group interview

Demographic information

Title: Agriculture vocational education programme and the promotion of job creation skills in the Orange Free State FET College

Make a cross in the appropriate spaces:

Table: 1 **Gender**

Male:

=43%

Female:

=57%

Total

=100%

Table: 2 **Age:**

20-30:

= 50%

30+

=50%

Total

=100%

Table: 3 **marital status**

Married:

= 00%

Not married:

=00%

Other:

=00%

Total

= 100%

Table: 4 **Qualifications**

Diplomas:

=

66,7%

Degrees:

=33.3%

Total

= 100%

Table: 5 **Positions**

HOD:

=33%

Lecturers:

= 66%

Total

=100%

Table: 6 **Locations**

Students

Urban:

=100%

Lecturers:

Urban:

=100%

Total

=100%

Table: 7 **Language**

Students:

South

Sotho:

=100%

Lecturers:

South

Sotho:

100%

English:

=None

Other:

= None

Total

=100%

Table: 8 **Population group**

South

African

Students:

= 100%

Lecturers:

=100%

European:

None

Asian/Other:

=None

Total

= 100%

Appendix 7: Focus group questions

Section A: (Coordinator/Facilitators)

- (1) Can you tell us more about your experience in agriculture?
- (2) What subjects are fundamental to agriculture?
- (3) How do you promote job creation skills in agriculture?
- (4) What problems do you encounter in agriculture?
- (5) How does the College perhaps promote job creation skills in the agric-sector?

Section B: Students

- (1) What attracted/inspired you to study agriculture?
- (2) Are you well equipped to create jobs in agriculture after graduation?
- (3) What do you think is required to improve business in agriculture?

Anything you would like to add on agriculture?

Thanks very much for your participation. You are always welcome to ask if there is anything you would like to know.

Appendix 8: Sound recording

Tape recorder, empty cassettes and new batteries

Participants might be given the questionnaire prior to actual participation to prepare and read their answers while the tape is on during the session. This might provide them with enough opportunity to get more information and present it with confidence. It might also help in case the tape recording is not successful. The researcher will be taking notes during this process making sure that all questions were answered.

Appendix 9: Focus group debriefing form

Title: Agriculture Vocational Education programme and the promotion of job creation skills in an FET College

Researcher/Moderator: MW Thwala

Note-taker: MW Thwala

Date:

- (1) What are the main themes that emerged in this focus group?
- (2) Did any information contradict what the researcher learned in the literature?
- (3) What did participants say that was unclear or confusing to the researcher?
- (4) What did the researcher observe that would not be evident from reading a transcript of the discussion (group dynamic, individual behaviours)?
- (5) Were any problems encountered, e.g. confusing questions? What were they?
- (6) Issues that will be followed up.
- (7) Suggestions by the researcher.

Appendix 10: Minutes

A focus group interview was held.

Date: 02 May 2017

Venue: Sefikeng campus/boardroom

Present: Two facilitators and three final year students.

Withdrawals: One student and one female facilitator withdrew from the focus group interview.

Time: 14:40

Opening: The session was agreed to be in two: Session one was the interview with the researcher and students. This was agreed to encourage them to talk freely about themselves. The researcher issued relevant information as found in the appendices. He briefly introduced himself and explained the purpose of the interview and the procedure. Then he switched on the tape recorder. Then it was the question he read and was responded to by the first respondent. He jotted down some notes while the respondent was answering the question. This he did to all until the session was over. He switched off the tape recorder and ask if there was anything the respondents would still like to say. He jotted down again what he thought was additional information though it was said by the initial person. There being nothing more to say, he thanked the group. Contact numbers were left with the coordinator in case there was something they would still like to say. However, questions were asked and the researcher was requested to answer.

The second session started shortly after the first one with facilitators. They were welcomed and since they knew the purpose of the focus group discussion the researcher started with questions which they responded to though they were not all there. This session concluded at 15:50 and it was time for refreshments. It was remarked that the university does not give feedback after a research had been conducted since this has happened with previous researchers. The researcher thanked all and promised to convey this concern to the promoter. He then left.

Appendix 11: Letters of permission

14 October 2016

TO WHOM IT MAY CONCERN

Dear Sir/Madam

REQUEST FOR ETHICAL CLEARANCE: M. W. THWALA, STUDENT NUMBER.
201415694

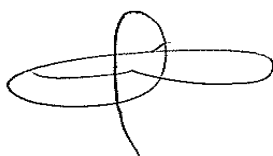
This document serves to confirm that:

- the above student is registered for PhD at this university;
- The research proposal for his PhD thesis was approved by the Faculty Research & Higher Degrees Committee.
- The said candidate is about to carry out the field work

Please kindly accord him with necessary assistance needed for the completion of his Doctoral's programme.

May I request your cooperation and support to the student?

Thank you

A handwritten signature in black ink, consisting of a large, stylized loop with a vertical line extending downwards from the center.

Professor E.O. Adu PhD
Email: eadu@ufh.ac.za
Cell: 084 925 1948

P.O. Box 2529

Ladysmith3370

2016 Sept 05

The Faculty Research Ethics Committee University

of Fort Hare

50 Church Street East

London

Sir

Re: Permission to conduct a research survey: Thwala MW MR

Title: Agriculture Vocational Education programme and the promotion of job
creation skills in the OFS FET College. Student number:201415694

Permission to conduct a research for the PhD degree at the above-mentioned college
is hereby requested. The supervisor in the research is Prof. E.O. Adu in the Faculty of
Education

Yours faithful

Thwala, M. W. (MR) (Student).

P.O. Box 2529
Ladysmith
3370
2016 September 05
Cell. 0843112775

The Supervisor

Faculty of Education Department

Attention to Prof. E.O Adu University

of Fort Hare

50 Church Street

East London 5200

Sir

Permission to conduct a Research survey: Thwala MW MR

Student number 201415694 PhD.

Permission to conduct a research for the PhD degree in the rural area OFS FET College is hereby requested. The Title of the research: Agriculture Vocational Education programme and the promotion of job creation skills in the OFS FET College.

Yours faithful

Thwala MW MR (Student)

P.O.Box 2529

Ladysmith

3370

2017 April

Cell. 0843112775

The District Manager of Higher Education
Moremoholo & Motloun Street
Setseng Puthaditjaba
Harrismith/Kestel

Sir/Madam/Miss

**Re: Permission to conduct a research survey for academic purpose:
Thwala, M. W. (MR) Student number: 201415694**

I am a part time student in the degree Philosophy of Education (PhD) at the University of Fort Hare. Since part of the research will be conducted in a target group /face-to-face interview, permission is herewith requested to visit the FET College in Phuthaditjhaba (Qwaqwa) to conduct this research.

The title of the research is; **Agriculture Vocational Education programme and the promotion of job creation skills in the OFS FET College.** Arrangements for the visit will be made with the management of the institution prior to actual visit. This will not exceed 2hrs. envisage time is 1 hr as it is not intended to interfere with normal functioning of the college. For verification always contact my supervisor Prof. E.O Adu at the University of Fort Hare, cell number: 0849251948.

Yours faithful

Thwala MW Mr (Student)

Appendix 12: Language editing certificate

8 Nahoon Valley Place

Nahoon Valley

East London

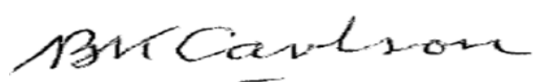
5241

18 June 2017

TO WHOM IT MAY CONCERN

I hereby confirm that I have proofread and edited the following doctoral thesis using the Windows 'Tracking' system to reflect my comments and suggested corrections for the student to action. Note that the thesis still requires numerous language/formatting corrections to be made by the student and may need further editing.

Agriculture vocational education programme and the promotion of job creation skills in the Free State Further Education and Training College by William Mandla Thwala, a thesis submitted in fulfilment of the requirements for the degree of Doctor of Philosophy at the University of Fort Hare.



Brian Carlson (B.A., M.Ed.)

Professional Editor

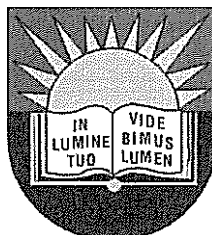
Email: bcarlson521@gmail.com

Cell: 0834596647

Disclaimer: Although I have made comments and suggested corrections, the responsibility for the quality of the final document lies with the student in the first instance and not with myself as the editor. Note that in this particular case a second editing may well be required.

BK & AJ Carlson Professional Editing Services

Appendix 13: Ethical clearance certificate



University of Fort Hare
Together in Excellence

ETHICAL CLEARANCE CERTIFICATE **REC-270710-028-RA Level 01**

Certificate Reference Number: ADU181STHW01

Project title: **Agricultural Vocational Education Programme and the promotion of job creation skills in the Free State Further Education and Training College.**

Nature of Project PhD in Education

Principal Researcher: Mandia William Thwala

Supervisor: Prof E.O Adu

Co-supervisor: N/A

On behalf of the University of Fort Hare's Research Ethics Committee (UREC) I hereby give ethical approval in respect of the undertakings contained in the above-mentioned project and research instrument(s). Should any other instruments be used, these require separate authorization. The Researcher may therefore commence with the research as from the date of this certificate, using the reference number indicated above.

Please note that the UREC must be informed immediately of

- Any material change in the conditions or undertakings mentioned in the document
- Any material breaches of ethical undertakings or events that impact upon the ethical conduct of the research

The Principal Researcher must report to the UREC in the prescribed format, where applicable, annually, and at the end of the project, in respect of ethical compliance.

Special conditions: Research that includes children as per the official regulations of the act must take the following into account:

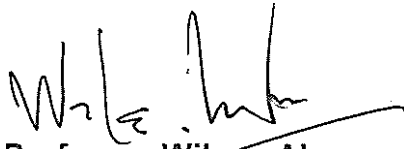
Note: The UREC is aware of the provisions of s71 of the National Health Act 61 of 2003 and that matters pertaining to obtaining the Minister's consent are under discussion and remain unresolved. Nonetheless, as was decided at a meeting between the National Health Research Ethics Committee and stakeholders on 6 June 2013, university ethics committees may continue to grant ethical clearance for research involving children without the Minister's consent, provided that the prescripts of the previous rules have been met. This certificate is granted in terms of this agreement.

The UREC retains the right to

- Withdraw or amend this Ethical Clearance Certificate if
 - o Any unethical principal or practices are revealed or suspected o Relevant information has been withheld or misrepresented
 - o Regulatory changes of whatsoever nature so require
 - o The conditions contained in the Certificate have not been adhered to
- Request access to any information or data at any time during the course or after completion of the project.
- In addition to the need to comply with the highest level of ethical conduct principle investigators must report back annually as an evaluation and monitoring mechanism on the progress being made by the research. Such a report must be sent to the Dean of Research's office

The Ethics Committee wished you well in your research.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Wilson Akpan', with a long horizontal flourish extending to the right.

Professor Wilson Akpan
Acting Dean of Research

10 March 2017