

The TVET College lecturer qualification and related vocational pedagogy research studies for sustainable skills development.

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Abstract

Technical and Vocational Education and Training Colleges and Community colleges (ACET) provide vocational skills to youth and communities for middle level jobs. It is assumed that students completed occupational courses from these sectors should have marketable skills required by various industry and employers in the country. The major challenge for African economies over the next decade is to find productive employment for the 7 to 10 million annual new entrants to the labor force—a consequence of historical rapid population growth and a swelling of the labor force by today's school-leavers. *Technical and Vocational Education and Training, in many instances, provides the wrong skills for employment. Formal TVET at technical schools and technical colleges, in many cases, fails to deliver skills for existing jobs.* There is chronic shortage of qualified TVET human resources in many countries.

The need to develop programmes for technical and vocational teacher education for technical colleges to produce skilled labours became imperative in educational transformation in the country. The Policy on Professional Qualifications for Lecturers in TVET was gazetted on the 11 June 2013. The policy marks the first time in the history of Technical and Vocational Education and Training (TVET) in South Africa that a formal set of professional and post-professional qualifications for TVET has been formulated as national policy. Higher education institutions are presently using this policy in developing TVET qualifications (B Ed : TVT, Adv Dip TVT, Dip TVT) for lecturers at TVET colleges. Most of these qualifications are planned to be implanted in 2019/2020. Most of lecturers at TVET colleges are expected to undergo education and training under these qualifications. Majority of lecturers at about 52 colleges don't know about these qualifications.

The pedagogy of TVET or vocational pedagogy is varied in order to achieve the varied occupational outcomes within the dual outcome of vocational education. This implies that vocational education requires two types of expertise, viz teacher with work experience and workers with pedagogic knowledge and experience. In South Africa Technical and Vocational Education (TVET) is undergoing radical transformation in entire facet. If we are really to contribute in the transforming of TVET in all of its many forms then we need to understand the teaching and learning methods which work best in our context.

The Department of Higher Education and Training is currently implementing a five-year programme (2015-2020) to strengthen capacity at universities to enable them to provide quality college lecturer education and development programmes. The College Lecturer Education Project (CLEP) seeks to support the university system to develop

capacity to offer college lecturer qualification programmes on a scale that qualitatively and quantitatively meets the needs of the Technical and Vocational Education and Training and Community Education and Training college sectors.

The main activities of the CLEP are:

- To support the development of college lecturer education programmes and modules
- To support the development of teaching materials; and
- To do research that will inform policy and practice

This presentation is about the TVET Lecturer qualification, namely B Ed TVT and Adv Dip TVT as well as the vocational pedagogy research projects to be conducted at TVET Colleges. The presentation on TVET lecturer qualification will include Purpose of qualification; Subject methodology – one of the following articulation with other qualifications and programmes mode of delivery of the programme; Programme design; Compulsory subjects electives (choose one curriculum studies in TVET subject as methodology; Teaching, learning and researching in technical and vocational education and training; Work Integrated Learning.

The Vocational Pedagogy research project presentation covers: Background and Introduction; Preliminary literature review; Vocational pedagogy for vocational education; Problem statement; Research Questions; Sub-questions; Research methodology; Population and sampling; Data collection instruments; Proposed Field Work Plan.

Background and Introduction .

Human resources are central to the performance of every economy. In the short-term, the framing of the skills issue is how best to reduce unemployment. Skill mismatches may hinder the return to full employment and slow economic recovery (Puri, 2012) The importance of technical vocational education and training (TVET) as a change agent for social, economic, technological and national development has been a subject of discussion at summits, academic conferences and at policy circles in developing nations ([Raimi & Akhuemonkhan, 2014](#)). Increased reliance is also placed on (TVET) to raise educational attainment levels and to improve the labour market and career outcomes of the poor. The United Nations Educational, Scientific and Cultural Organization (UNESCO), over time, has emphasised the important role TVET has to play in economic development and poverty reduction, particularly for the most disadvantaged (see, for example, UNESCO 1987) (Pavlov, 2014). This view is based on the pivotal role that TVET has in creating a workforce of lifelong learners with the knowledge and skills needed to work with new technology in emerging careers (Pavlov, 2014). Why is TVET important? According to the World Bank's 2007 World Development Report, 1.3 billion 15- to 30-year-old young people now live in the developing world—the largest youth population in the history of the world, in both

absolute and relative numbers. Young people make up nearly half of the world's unemployed. For example, a recent study by Silatech concludes that 100 million new jobs have to be created in the Middle East and North Africa by 2020, just to keep pace with new entrants into the region's labour markets ([Aring, 2011](#)).

The supply of sustainable occupational skills is central to economic growth and development in South Africa. Like many countries, South Africa regards technical and vocational education at both schools and college sectors as a major contributing factor in improving the competitiveness of enterprises and national economies' (Rauner and Maclean, 2008). Curricular and education policy transformation have been undertaken globally to revitalize Technical and Vocational Education and Training (TVET) sectors for economic growth and solving socio-economic problems. The examples of the wider international discourses include the 'new vocationalism', which emphasises the need for education that 'contribute to national economic imperatives' and occupational needs (Chappell, 2003). These global discourses were aligned with the national imperatives for human resource development strategies that should support redistribution through economic growth in the new democracy. It is clear that the transformation policy related to improving South African TVET curricula at both schools and colleges has drawn heavily on other systems from developed economies such as New Zealand, Australia and Scotland and so forth. Technical and Vocational Education and Training (TVET) and vocational education are viewed as key levers for addressing a myriad of social ills such as poverty, youth unemployment and skills shortages. It becomes imperatives for TVET colleges and technical schools to apply the appropriate didactics in classrooms by integrating digital technology in the teaching and learning of technical mathematics. Hattie (2003) supports this by saying "it is what teachers know, do and care about which is very powerful in [the] learning equation". The principle of teaching and learning by doing and making enable learners and students to know and apply the knowledge in various contexts including workplaces (Moghamsi, 2016). As part of transforming technical and vocational education colleges the Department of Higher Education (DHET) developed a national policy for the TVET College lecturer qualification. The policy on professional qualifications for lecturers in technical and vocational education and training is the first time in the history of South Africa after 1994 that is aligned to respond to workplace skills needs for all citizens. Most universities in the country are presently developing curriculum programmes and qualifications for TVET lecturers to be capacitated to train youth who are responding to industry needs in a fast growing technological era. These new programmes are envisaged to be implemented in 2019/20 (DHET, 2013).

There are about 50 TVET colleges in the country who are involved in the vocational education and training of youth. Part of the process of developing the TVET programmes is to make TVET lecturers aware of the new upcoming programmes and qualifications that they will be trained in 2019. This study is an attempt to determine the extent of awareness of TVET lecturers on the new programme qualifications required for them to teach at TVET colleges.

The importance of technical and vocational education and training

There are several factors that shed new light on the importance of effective systems for technical and vocational skills development, as compared to the past liberal education ideology. Education and training for productive employment is crucial for economic and social development. Technical and Vocational Education and Training (TVET) is viewed as a pathway for productivity enhancement and poverty reduction in the world (Pavlova, 2014). It is often argued that there is a close correlation between economic growth on the one hand and the technical and vocational education and training system on the other, owing to its key function of providing the necessary workforce for the labour market.

Many countries have taken steps to develop policy guidance and regulatory frameworks for technical and vocational education and training and to improve partnerships with private sector and employers. In this country the National Development Plan, Skills Development Act and Post-school education policy are steps in the right direction to reduce unemployment and fight poverty. However, the implementation of these policies are problematic, in that little has been done since their inception, partly due to shortage of qualified personnel.

The growing number of school leaving graduates of basic education entering the labor market without employable and marketable skills is creating social and political pressure to expand access to training. The demand for relevant skills development is increasing, exponentially, due to rapid digital technological change, globally. Globalization is contributing to capital deepening, with its complementary requirements for more and better human capital. Systems for skills development in South Africa and most developing regions are overdue and ill prepared to meet these challenges. The essential requirement for successful skills development is its close alignment with the needs of the industry. However, the technical and vocational training systems in the country is still in isolation with workplace market demand and with little or no employer participation. The purpose of skills development and training is to impart relevant knowledge and competencies to students . In most cases, combination of the quality, occupational standards, qualified lecturers and instructors, necessary equipment, and quality assurance mechanisms are compromised and lacking. Makgato and Makgato (2017) argues that teaches lack hands-on practical skills to produce skilled graduate to industry. The effectiveness of technical and vocational education system depends critically on the quality of teaching and learning in the classrooms, workshops, laboratories (Lucas, Spencer, & Claxton, 2012). The real answers to improving outcomes from vocational education lie in the 'classroom', in understanding the many decisions 'teachers' take as they interact with students. To reduce poverty and unemployment, TVET lecturers should be trained more on practical vocational skills (Lilly and Efajemue 2011). According to Amedorme and Fiagbe (2013), Universities of Technology offering technical and vocational education should enable students lecturers to acquire practical knowledge and skills suitable for the job market or immediate self-employment. Technical and vocational courses offered to TVET lecturers by UoT include automotive repair and maintenance,

electrical works, welding and fabrication, tailoring and dressmaking, carpentry and joinery, plumbing, brick laying and concreting or masonry (Amedorme and Fiagbe 2013).

The new programmes qualifications being developed to produce competent teachers for TVET colleges are aimed at addressing the challenges of unemployment and fight the frontiers poverty. The TVET programmes are intended to directly respond to the priority skills demand of the modern economy. There is a greater need for programmes that are relevant to South Africa's economic growth trajectory. One of the greatest crimes of apartheid was the provision of substandard education to the majority of the people. Access to education was limited and quality was poor.

Quality technical and vocational education and training, including other influential factors such as curricula, learning-teaching materials and environmental context, physical resources can significantly improve the quality of technical and vocational education and training (TVET). The capacity of TVET systems to provide high quality and relevant training depends largely on the quality of its teachers and trainers, and, on the quality of their technical and vocational teacher training systems" (Axmann et al. 2015). Several phenomena such as global trends and rapid technological changes, and international acceptance of qualifications, among others, require new approaches and initiatives to foster TVET including the review of TVET curricula. Two of the initial teacher education programmes under development are outlined below. The Adv Dip TVT is for TVET lecturers who obtained a specialised 3-year specialisation qualification (Bachelor or Diploma), but don't have pedagogy to teach. The B Ed TVT is for college or school graduates who want to be lecturers at TVET colleges.

New proposed technical and vocational education and training lecturer education qualifications

The proposed TVET programmes are aimed at capacitating college lecturers to provide a relevant marketable knowledge and skills to youth who are employable at fast changing industries.

Advanced Diploma in Technical and Vocational Teaching

The Advanced Diploma in Technical and Vocational Teaching (Adv. Dip TVT) is offered either as a professional teaching qualification to prospective Technical and Vocational Education and Training (TVET) lecturers or as an in-service professional teaching qualification to lecturers who are in possession of at least an approved 360-credit Level 6 relevant national diploma or bachelor degree.

The Advanced Diploma in Technical and Vocational Teaching further serves as a 'capping' qualification that enables a graduate or diplomates who already possesses a general undergraduate bachelor degree or diploma, to become professionally qualified as a TVET lecturer. It offers entry-level initial professional preparation for graduates and diplomates who wish to develop focused knowledge and skills as TVET lecturers in a chosen TVET subject. For this purpose, this qualification requires specific depth and specialisation of knowledge, together with practical skills and

workplace experience to enable successful students to apply their learning as beginner TVET lecturer in colleges in varying contexts.

This qualification also provides a foundation for innovative research, entrepreneurship, the use of science and technology and community engagement in order to produce economically responsible citizens in the chosen TVET field of study.

Minimum admission requirements

The minimum admission requirement is an appropriate undergraduate diploma or bachelor's degree. An appropriate diploma or degree is one that includes sufficient disciplinary learning in appropriate academic fields to enable lecturing a technical or vocational subject or field as taught in TVET colleges. The underpinning disciplinary knowledge, or substantial component thereof in the prior qualification, must have been studied at the exit level of the entry qualification.

This qualification is at NQF level 7 with a minimum credit total of 140, which will take a period of 2 years in a Part-time, Face-to-face contact, and College Based and Industry Based Work Integrated Learning. Table 1 outlines the structure of proposed courses to be offered in an Adv Dip TVT.

Table 1: Structure for the Advanced Diploma in technical and vocational teaching

Courses	CESM	NQF	Compulsory / Elective	SAQA CREDITS
Year 1				
Academic Literacy and Life Skills	060501, 071401	5	C	10
College-based WIL 4A	070899	7	C	12
Curriculum and Instruction 4: TVET Subject specialisation*	070201 (List)*	7	E	15
Education Studies 4	070107	7	C	15
ICT literacy	070811	5	C	2
Language of Learning and Teaching: English	071411	5	C	3
Technical and Vocational Education Studies 4A	071411	7	C	17
Year 2				
Collage Based WIL 4B	070899	7	C	12
Industry-based WIL 4	070899	7	C	8

LoCC: (Choose one of the following: Afrikaans / IsiXhosa / IsiZulu / / Sepedi / Sesotho / Setswana / Tshivenda / Xitsonga)	714401	5	E	2
Teaching, Learning and Researching in Technical and Vocational Education and Training: TVET Subject specialisation *: 4	070899	7	E	17
Technical and Vocational Education Studies 4B	071411	7	C	17
Technical and Vocational Education and Training Management 4	071108	7	C	10
TOTAL CREDITS ON NQF LEVEL 5				17
TOTAL CREDITS ON NQF LEVEL 7				123
TOTAL CREDITS OF ADV. DIP (TVT)				140

Table 1 outlines subjects that will be studied by students who are in possession of 3-year Dip or bachelor qualification in a particular occupational or professional fields, and want to obtain professional education qualification to teach at TVET colleges.

The Vocational Pedagogy of Teaching and Learning of Vocational Subjects at TVET Colleges

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