

**PERSPECTIVES ON THE CET & TVET
COLLEGES INFRASTRUCTURE
DEVELOPMENT SUPPORT (EQUIPMENT/
WORKSHOPS/ CONNECTIVITY/ ICT)**



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- The past decade has seen a process of centralisation of responsibility for the governance of post-school education.
- South Africa now has 50 TVET Colleges (and a number currently under construction).
- The DHET CET programme was formally established in April 2016, consisting of nine Community Education and Training (CET) Colleges under which there are several thousand Community Learning Centres (CLCs).
- The actual arrangement of existing TVET and CET Colleges has an historic context and there is not yet any norm indicating how many there should be in each area.
- The strategic objective is to expand the geographic spread of CET colleges, with 54 of the Community Learning Centres having been identified nationally to pilot the concept of the CET programme.
- The study commissioned by LGSETA focused on equipment, workshops, connectivity and ICT at TVET and CET colleges.
- One of the greatest challenges to any continuing education system is ensuring that infrastructure is in place, including learning spaces, administrative facilities, ICT and the like.



- Primary research
 - Collation and analysis of databases developed through primary research
 - Stakeholder engagement including:
 - LGSETA personnel (4 provincial managers and the LPD manager)
 - MICT SETA personnel
 - DHET officials (2 DDGs, Chief Director: Planning for TVETs, Chief Director: Programmes for TVETs, Finance, Chief Director: Special Project, Director: Building development)
 - CET colleges (all nine contacted and interviews held with three Principals including the Secretary of all CET Principals)
 - CLCs (Dokkies Learning Centre)
 - TVET colleges (all 50 contacted, and 12 interviewed)
 - Researchers in this sector
 - Learners from SRCs
 - Field trips to a number of CLCs / satellites



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Methodology – secondary research

- Secondary research
 - Desktop research
 - Review of legislation, Ministerial Commission reports, documents dealing with norms and standards, training, reorganisation and overall monitoring processes



International context (1)

- Technical Vocational Education and Training (TVET) is recognised internationally for the role it can play in providing occupations of functional value and as an effective source of skilled workforce.
- UNESCO and the ILO define TVET as:
 - An integral part of general education;
 - A means of preparing for occupational fields and effective participation in the world of work;
 - An aspect of lifelong learning and a preparation for responsible citizenship;
 - An instrument for promoting environmentally sound sustainable development;
 - A method of facilitating poverty alleviation.
- In Asia, given the pressure to expand technical and vocational education, there is increasing focus on making TVET systems more accessible, equitable, efficient, demand-driven, responsive and relevant.



International context (2)

- The African Development Bank found that there is a need to upgrade and expand education and training programmes, in order to keep up with the technical skills required for the Fourth Industrial Revolution.
- In a review of TVET across Africa, Oviawe (2018) noted the importance of PPPs in strengthening TVET systems.
- Inadequate funding by governments across Africa has resulted in dilapidated infrastructure, a paucity of teaching and instructional materials, and poor hygiene and sanitation conditions.
- The TVET environment is characterised by:
 - Low quality training and mismatch between training and labour market skill demand,
 - Quality of TVET facilities like workshops, books, classrooms, learning environment, machines, computer rooms, TV/Audio visual, instructors and contents of curriculum are inadequate in most tertiary institutions, and
 - Inadequate classroom blocks, lack of conducive staff offices, inadequate electricity supply, lack of water supply, inadequate workshop spaces, lack of TVET machines and tools, lack of TVET books, lack of consumable materials and inadequate instructional materials.

Education in the time of Covid-19

- On 1 April 2020, schools and HEIs were closed in 185 countries, affecting 1 542 412 000 learners, (89.4% of total enrolled learners).
- Alternative approaches were undertaken by countries across the world, to combat the effect of the pandemic on learning. This included distance learning, using multimedia, print and video media, and the use of broadcast media to reach students.
- In the USA, Covid-19 was used as an opportunity to accelerate transformation.
- In a review of global impact of Covid-19 on higher education, 87% of Africa HEIs noted that there were no adequate communication infrastructures in place, for communicating with staff and students.
 - Africa was also the only region where teaching was suspended or cancelled at the majority of HEIs.
 - Two-thirds of African HEIs were not prepared to move teaching online and when they closed their campuses they had to suspend teaching. However, a number of institutions then worked on solutions to allow for studies to continue through digital or self-study mechanisms.
- On a positive note, many HEIs saw ‘the experience of working and teaching from distance as an important opportunity to learn from this exceptional situation and to propose more flexible learning possibilities, explore blended or hybrid learning and mixing synchronous learning with asynchronous learning.’ (IAU, 2020)



- In South Africa, colleges such as TVET and CET intend to provide classroom and workshop-based learning programmes.
- The adequate maintenance of facilities and equipment is essential for good training and learning programmes.
- Given the nature of the training and skills provided through technical colleges, it is critical for equipment and workshops to be up to date and modern, reflective of recent innovation and technologies that would be encountered in workplaces.
- In 2019, Aitchison and Land showed that there have been decades of neglect of community education centres in South Africa.
- In addition, DHET (2016) note that 93% of expenditure is spent on employees, leaving very little funding for infrastructure.
- In 2019, the Minister of Higher Education announced that R1 billion would be allocated for a College Infrastructure Efficiency Grant for TVET Colleges.



- DHET's systematic approach towards the funding of equipment, workshops, connectivity and ICT at TVET and CET colleges has focussed on:
 - The establishment of national norms and standards,
 - The provision of new facilities to accommodate some of the spatial distortions in the geography of these colleges,
 - The more recent provision of funding for maintenance and rehabilitation, and
 - The development of a pilot programme focussed on Centres of Specialisation.
- There are initiatives to provide connectivity to TVET colleges in South Africa, under a programme called the TVET Campus Connection Programme (TCCP).
 - By October 2020 three TVET colleges had gone live on the network, and there is work underway to connect a further 100 campuses
 - The Covid-19 pandemic has shown that access to digital learning is more important than ever.
 - International best practice shows the need for the provision of particularly funding for ICT and connectivity to CET and TVET colleges.



The LGSETA study (1)

- This study found a number of general challenges at TVET colleges.
- Students from the SRC at eThekweni College noted that there are difficulties in the communication between LGSETA and the college.
 - ‘We have students sent from the central campus to the Durban campus and are meant to receive stipends and to assist in learning and you find students being sent back and forth with no one being accountable as to who has to assist the students. There should be transparency in terms of the stipends provided for.’
- Colleges also noted the restrictions in numbers, with inadequate funding to accept more students.
- The need for external sponsors was also raised, to assist in maintenance of facilities.
- Finally, challenges around a lack of space and building infrastructure to accommodate all students and lecturers was also discussed.
- The interviews with CET representatives saw a common issue of infrastructure being raised.
- In this, there appears to be major challenges with access to facilities, ranging from the use of existing school infrastructure which are insufficient, to the renting of facilities in industrial areas.
- One Principal noted that previously the CET had been located in a building where learners had to walk through a beer hall to gain access.



The LGSETA study (2)

- It was noted by one interviewee that DBE has evicted CET colleges in some instances, when it requires use of the buildings in which the CET college was located.
- There is a concern that DBE and DHET, together with DPWI, are working in silos.
- Interviews with representatives of TVET colleges found that the institutions currently provide a wide range of infrastructure and equipment. These include:
 - Computer labs
 - Workshops with basic equipment for courses such as bricklaying, electrical, hand tools, automotive repairs, fitting and turning, plumbing, carpentry and roof work, renewable energy technology and welding and fabrication.
- Significant challenges were raised during the interviews with regard to the outdated equipment, lack of equipment and other challenges.
- With regard to the provision of Wi-Fi, this was a challenge across almost all institutions that were interviewed.
- In some cases, internet is not provided at all, while other interviewees noted the erratic nature of internet connectivity, or the installation of Wi-Fi facilities that have not yet been activated.
- Other ICT related challenges include the need to servers, hardware space to upload learning materials and video lessons, and appropriate software.



The LGSETA study (3)

- Similar challenges around the lack of equipment and ICT were noted at CET colleges.
- Very few of the TVETs and CETs could indicate significant partnerships and many raised concerns that municipalities and business do not see them as strategic partners.
- Most institutions do have 5-year maintenance plans although a few noted the challenges with budgets being reprioritised, negatively affecting maintenance.
- There are different approaches to the provision of maintenance within TVETs, ranging from maintenance being done at a central office level, to individual college maintenance plans.
- 2018/19 was the first time that a College Infrastructure Efficiency Grant was appropriated for the sector.
 - The grant focused on infrastructure maintenance.
 - The provision of this grant is beginning to have an impact as one of the TVET's annual reports reflected that the 'Introduction of DHET's infrastructure and maintenance project in 2018 was very positive as it enabled College to address serious infrastructural and maintenance challenges relating to aging immovable assets and security.'



Recommendations (1)

- **Differentiation in policy development and implementation**
 - DHET and the SETAs should ensure that their policies fit the realities on the ground as a one size fits all approach does not make sense.
 - There is an urgent need to consider how each local environment impacts positively and negatively on the learning environment.
 - The District Development Model could be used as the basis for identifying the priorities for each of the 44 Districts and eight Metropolitan areas.
 - By doing so, intergovernmental partnerships are more easily built in each area.
- **SETA Policy**
 - Currently, the policy approaches of SETAs do not allow for the provision of budgets for infrastructure such as workshops, equipment, ICT and access to the internet.
 - DHET should work with the SETAs to develop clear guidelines on what may be provided as part of the learning programmes in terms of the provision of basic infrastructure which may be necessary for each programme.



Recommendations (2)

- **Strategic partnerships with provincial and municipal governments**
 - Should include joint planning exercises around the creation of accessible educational districts.
 - Also, wherever possible government should use graduates from the TVETs and CETs in the appropriate disciplines and ideally fund learners with bursaries committing that they will spend an equivalent time in the government department upon graduation.
- **Strategic partnerships with the private sector**
 - A very real challenge facing TVETs and CETs in the South African context is that they are seen as the ‘poor cousins’ in the higher education system.
 - The DHET should assist TVETs and CETs in raising their profiles; assist in the process of sourcing at cost the provision of smart classroom equipment and appropriate open source software; and develop and assist in implementing a national strategy where major national companies get involved to partner with specific TVETs and CETs across the country.
- **Improved information and planning information on TVETs and CETs**
 - Good planning requires credible information and it is recommended that DHET (possibly in partnership with the SETAs) establish a centralised database bringing together base data on the TVETs and CETs.



Recommendations (3)

- **National strategy for accessing underutilized or vacant state land and buildings**
 - Wherever possible every attempt should be made to ensure that CLCs get their own premises.
 - It is suggested that DHET drive through Cabinet a decision that all unused government buildings/lands be able to be easily accessed where there are concrete plans for continuing education, or for other legitimate governmental purposes.
- **National strategy to improve access to ICT**
 - There is an urgent need, particularly given the Covid-19 pandemic, to ensure that learners, teaching and administrative staff at TVETs and CETs are all able to maximise the use of ICT to improve the quality and quantity of the education they provide.
 - There must be a national strategy to bring all learners into the fold ensuring they have free or cheap data and that they have adequate IT equipment.
 - An urgent programme across all SETAs should be embarked upon to train lecturers in the use of laptops, computers and online learning methods.
- **Funding strategy for ICT**
 - A national strategy involving all spheres of government could easily ensure the rollout of ICT to all institutions of learning (basic, continuing and higher education) with free data being provided.
- **Capacity building**
 - There are significant opportunities for capacity building, including skills training programmes for the wide variety of role players involved in CET/TVET colleges