

Dynamics and Complexities of Work Based Education in the Context of Technical, Vocational and Training Colleges

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ABSTRACT Technical Vocational Education and Training (TVET) in South Africa has undergone major institutional, structural and curricular changes over the last twenty-seven years. At the centre of these changes lie skills mismatch and poor quality of graduates who have gone through Work Based Education (WBE) experience. This study was conducted on two campuses of one of the public TVET colleges in northern KwaZulu-Natal Province of South Africa. This mixed-method study used purposive sampling to identify the sample size of 21 participants, which comprised campus managers, senior lecturers and WBE champions. The findings revealed that the college management is failing to give necessary support to the implementers on the ground to carry out the WBE programme. Findings also revealed that the college management seems not to fully comprehend their role in enforcing compliance with the regulation guiding the WBE implementation. The need to strengthen ties with existing host employers and to recruit new host employers to address a serious shortage in graduate placement is evident. The study recommends that a clear vision for the implementation of WBE be prioritised and communicated to all stakeholders for effective implementation of the programme.

INTRODUCTION

The Technical and Vocational Education and Training (TVET) sector remains a strong alternative education platform for post-matric graduates to gain requisite work experience in South Africa (Buthelezi 2018; Kraak 2018). One of the causes of youth unemployment is identified as ‘the serious course for concern for the young and the future of South Africa’s young population’ (Bolli et al. 2018; Neroorkar and Gopinath 2020). In essence, TVET has been viewed as one of the most powerful skill enablers to address structural unemployment in South Africa (Smith and Curtis 2020; Olaniran and Mncube 2018). The study conducted by Höhns (2018) affirms youth implosion, an estimated 50 percent of the population is under the age of 25. This is a clear indication that youth unemployment cannot be ignored any longer, as is evident in the Statistics SA labour survey. According to Ngubane (2016: 1) and Neroorkar and Gopinath (2020), “high quality, relevant education and training strongly increase the chances of finding decent employment for the

youth.” This has a lot to do with chances particularly for securing employment, studying further and entrepreneurship opportunities after exiting the TVET sector (Höhns 2018; Smith and Curtis 2020).

However, in 2010 approximately 1.6 million students were enrolled in South African universities and further education and training colleges (FET colleges), while twice as many young people (3.2 million) were not in education, employment or training (NEET), according to the DHET (Buthelezi 2018). The official data from Stats SA paint frightening unemployment numbers for 2020. The rate of unemployment increased by 1.7 percentage points to 32.5 percent in Q4: 2020 compared to Q3: 2020. It was shocking to learn that 1.8 percent of unemployed persons were graduates, while 7.5 percent had other tertiary qualifications as their highest level of education (Stats SA 2021). This scenario continues to present a serious disconnect between the labour market and the education and training sector in South Africa.

Mabunda and Frick (2020) posit that the TVET sector is undergoing transformation owing to the sheer need to respond to the skills demand of the South African economy. The view of Schuller and Berbami (2020) believe in the strategic mandates

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of the TVET sector, hence the name change from FET to TVET colleges. The impact of skills mismatch highlights the extent of poor leadership in the TVET sector and this has caught the attention of the United Nations Educational, Scientific and Cultural Organisation (UNESCO) which is to address the shortage of skills required to improve productivity on the one hand and improve access to employment opportunities on the other (Mabunda and Frick 2020). The DHET has highlighted the lack of proper training from TVET and the quality of in-service training offered graduates leaving a long-lasting impact for job prospects in South Africa (Höhns 2018; Peterson et al. 2017).

It is alleged that for WBE to yield positive results, it ought to be implemented and managed effectively (NDP, 2011b). Therefore, the college management must implement the programme fully, and maintain robust partnerships with industries and host employers (Kamm et al. 2020). Effective implementation of WBE includes the development of a WBE strategy, the development of an action plan guiding the implementation of WBE per college and per programme. Management of WBE also includes the monitoring of WBE activities in line with the developed action plans, reporting on information, and review and evaluation of WBE success (Kraak 2018; Neroorkar and Gopinath 2020).

The general feedback from the industry about the National Certificate Vocational (NCV) is alarming as it is marred by a general lack of preparation, which needs further progress in the workplace structure in order to develop the necessary occupations (Höhns 2018; van der Bijl and Taylor 2020). Therefore, compliance remains vital to realise the dream and aspiration of the industry as an important stakeholder. The National Development Plan (NPD) forecast that by 2030, South Africa ought to have fixed the mismatch in TVET programmes needed by host employers for quality apprenticeship (NDP 2011a). In doing so the DHET must provide a diversified programme mix to benefit the largely poor learners who struggle to complete their schooling, and the TVET colleges' drop-outs, those who do not achieve university entrance, and whose poor skills base makes it difficult for them to secure employment (Höhns 2018). Vision 2030 is a concerted effort to respond to the National Development Plan (NDP 2011b) to en-

sure that "there will be at least one institution offering TVET programmes in every district in the country" (DHET 2013: 40).

In the meantime, SSACI introduced WBE to TVET college students in the NCV programmes in a pilot project initiated in 2008. WBE intends to develop long-term cooperation between colleges and companies with the sole purpose of improving the delivery of the NCV programme according to the needs of the industry (Peterson et al. 2017). During a short on-course programme (one to three weeks) "students observe and experience the world of work and acquire a valuable contextual foundation. This is a way to encourage TVET colleges and companies to talk to each other and to improve student employability in the long term" (Höhns 2018; van der Bijl and Taylor 2020).

Research Context

Key Considerations for Organising WBE for TVET Colleges' Students

The college management teams need to envision that to have only workplace experience is not sufficient for students' learning. In order to make it sufficient, it must be augmented by pedagogic practice (Smith et al. 2020). This denotes the importance of striking a balance between three components: theory, practicals and workplace-based learning. Another key factor for consideration by college management is the students' readiness to engage in their learning (van Houten 2018). Readiness involves interest, realism and capacity. It is therefore the responsibility of college management to ensure that students are engaged in their learning (Höhns 2018). College management must also consider creating platforms to engage students. Such platforms should include, but not be limited to, the following: preparing students for WBE through briefing and information-giving sessions; giving support during the experience, when sharing is encouraged and proper guidance is given to students; and assisting them to connect with the two sets of experiences which will take place after the WBE experience through focus groups and critical reflective sessions (Terblanche and Bitzer 2018).

Another key factor for management is aligning the understanding of all participants (which

in this case are students, staff and industry partners or host employers) of the purposes of WBE and its processes (van der Bijl and Taylor 2020). Integrating insights from practice into the broader curriculum, using WBE as a platform, is a key aspect for consideration by the college management as they organise WBE for students (Gaffoor and van der Bijl 2019). To promote WBE, the SSACI, based in Johannesburg, is a public-private partnership between the Swiss government and a group of Swiss companies operating in South Africa (van Houten 2018).

The SSACI, which reviewed the youth unemployment crisis in an effort to assist in its alleviation, now focuses on strengthening the interface between the TVET college sector and industry by introducing workplace experience for both students currently enrolled in the TVET colleges and TVET college graduates (Peterson et al. 2017; van der Bijl and Taylor 2020). The SSACI introduced WBE to FET college students in the NCV programmes in a pilot project initiated in 2008. The intention of WBE is to develop long-term cooperation between colleges and companies, and in so doing improve the delivery of the NCV programme according to the needs of the industry (City and Guilds Institute 2020). During a short programme of one to three weeks, “students observe and experience the world of work and acquire a valuable contextual foundation. This is a way to encourage TVET colleges and companies to talk to each other and to improve student employability in the long term (Höhns 2018; Smith and Curtis 2020).

Theoretical Framework

The theoretical framework for this study was based on the experiential learning theory drawn from the contributions of John Dewey, Jean Piaget and David Kolb (Ngubane 2016). Dewey (1938) revealed that learning in practice and from practice likely to improve skills set and work-based experience; hence the term “workplace-based experience”. Piaget’s conception of workplace or work-based experience address issues of assimilation and accommodation within the TVET sector cannot be overstated. The role of assimilation is to empower students to process information from the environment into his or her mind while accommodation empowers students with the high-

er cognitive ability to process information by assimilation (Satterly 1987). Kolb (1984: 38) defines experiential learning as “the process whereby knowledge is created through the transformation of experience”.

The study conducted by Cherry (2014) identifies a variety of ways processes and methods developed over the years to assist lecturers to transform the thinking process of students using experiential learning. Furthermore, TVET lecturers are required to enhance student’s critical reflection on experience; by prompting holistic experiences in instructional settings; coaching and mentoring in the midst of experience; and lastly, by assessment of the experience (Cherry 2014). The reflective constructivist view of WBE perspectives points out that learning is linked to individual and collective human actions and interactions (Cherry 2014).

Research Objectives

1. The main objective of this study was to determine the role of college management teams in ensuring compliance with the vocational curriculum structure in offering WBE for students.
2. To highlight key considerations that can be adopted by college management to enhance the implementation of WBE in TVET colleges.

Research Questions

- ♦ What is the role of college management in ensuring compliance with the vocational curriculum structure in offering WBE for students?
- ♦ What are college managements’ key considerations for effective implementation of WBE in TVET colleges?

METHODOLOGY

Participants

The research targets the population of campus management teams and WBE champions in different Business and Engineering studies programmes in the NCV campuses of the TVET College. The sampled population from TVET champions and campus managers was suitable to pro-

vide much-needed data for answering critical research questions. This was due mainly to the fact that they were hands-on and had intensive experience within their respective programme offerings. They were also within easy reach. The sample of 21 lecturing staff was identified as respondents of this study by using purposive convenience sampling. The sample was conducted in one public TVET college in northern KwaZulu-Natal Province, which comprised five campuses responsible for the NCV programme NQF Levels 2-4. One TVET college out of nine in Kwa-Zulu Natal was selected as a case study to conduct the study.

Research Design

This paper bases its findings on a study conducted from 2015 to 2016. It formed its basis within the interpretive paradigm. This is a case study design as one TVET college was used for data collection. The study used a mixed-method design to collect both quantitative and qualitative data because the researcher believes the combination of approaches results in a complete understanding of educational problems (Sharma 1999). The study considers both types of data substantial, and they were collected concurrently. De Vos et al. (2011: 435-436) contend that “the mixed vital principle is the use of both quantitative and qualitative approaches in the combination of research problems than merely using just one approach”. Multiple data sources enhanced the subjective values, intuition and authenticity of data to achieve a certain measure of credibility. The letter granting permission from the TVET college used in this study was granted by the institution at which research was conducted. As required by ethical research practice, pseudonyms were used to seal the identities of participants and respondents’. A number and a role were given to each participant (for example, Campus Manager 1, CM 1). The onus rested entirely on the researcher to ensure that any data used in this study when reported could not be traced to a particular campus, and thus a certain respondent or participant.

First, the quantitative approach employed questionnaires with closed-ended questions, based on the role of the college/campus management in ensuring compliance with the vocational

curriculum structure for WBE implementation. The questionnaires were used to explore the views of the campus management. A brief profile of the respondents gave a better understanding and analysis of the interpretation and analysis of the findings. The process of analysing data began immediately after all questionnaires had been collected from the respondents. The data collected using the questionnaire were coded and analysed manually. They were then summarised and presented using graphs. The responses to the closed-ended questions were numerically presented in a frequency distribution table and analysed. The Likert-scale statements with both positive and negative responses were used, in which respondents were asked to rate their responses.

Second, the qualitative approach was underpinned by ontological, epistemological, axiological assumptions in line with the procedures explained by Cohen et al. (2007: 135): “open-ended questions of the questionnaire are used for qualitative investigation because they provide rich and personal data, multiple realities that are socially constructed, and it is exploratory and appropriate to solicit participants’ views.” Sharma (1999) asserts that “qualitative data usually involves direct interaction with individuals on a one-to-one basis, or in a group setting”. The qualitative data helped to explain, and were designed to build upon, the quantitative results for greater credibility. Structured interviews generated much-needed data to answer the lingering question about challenges the TVET colleges’ managements encounter in practically implementing the third component of the NCV curriculum structure.

Miles and Huberman (1994: 10-11) define data analysis as “consisting of three flows of activity that take place at the same time: data reduction, data display, and conclusion drawing and verification”. As the above three streams of activity are interwoven, for the study these activities we’re engaged in throughout in a more cyclical way. In analysing the data, the aim of the study was borne in mind, which was to determine whether TVET colleges’ NCV curriculum structure complies with the national strategy and SSACI initiative in offering workplace-based experience for students.

RESULTS AND DISCUSSION

A thematic approach was used to present the findings from the Likert scale and interviews from

TVET facilitators after the two data generation methods were administered. This method of data analysis is consistent with Ramrathan's (2017) recommendation of the use of triangulation in data analysis for quality results. Thus multiple data sets managed to succinctly capture the views of each of the three participants and aligned with the chosen theoretical framework. The theoretical framework identified was used to critically analyse, interpret and discussed findings from each of the three participants. It was important to reconceptualise findings against appropriate literature.

The study's aim and objectives guided the entire data analysis, interpretation and discussion of findings to understand the role of college management teams in ensuring compliance with the curriculum structure in offering WBE for students. This section presents an in-depth analysis of the answers emanating from the critical research questions:

- (1) What is the role of college management in ensuring compliance with the vocational curriculum structure in offering WBE for students?
- (2) What are college managements' key considerations for effective implementation of WBE in TVET colleges?

Respondents are identified as follows throughout this analysis: the abbreviated position of the respondent and a number are used, as in the following examples: Campus Manager as CM and a number, for example, CM 1; Senior Lecturer and a number, for example, SL 1; and WBE champion and a number, for example, WBE Champ 1.

The overwhelmingly positive responses indicate that campus managers are supporting WBE implementation at their respective sites. These findings support those of Paterson et al. (2017) and DHET (2013), which emphasise the importance of the college management has to buy into the WBE programme fully to ensure successful implementation, which includes, but is not limited to, maintaining partnerships with industries and host employers.

Availability of Clear Vision for WBE Implementation

For effective implementation to take place, there must be a clear vision. Findings indicate that 57 percent of the responses were positive,

but 43 percent attested to the unavailability of a clear vision for WBE implementation on campuses. No clear DHET guidelines were in place. Buehring (2019) attests to the idea of monitoring as a fundamental aspect of any successful project implementation. For that reason, it is apparent that sending students out for experiential learning without monitoring them can result in the desired outcome not being attained, and the vision for WBE implementation not realised (Schuller and Bergami 2020).

Enforcement of the WBE Strategy of the College

Findings also revealed that the colleges' WBE strategy is enforced by the campus managers. 52 percent of the respondents agreed and 48 percent disagreed on this item, so there is not much difference in the numbers of respondents. These figures reveal that not much enforcement is done by campus managers. It mainly remains the duty of the WBE champions to enforce it.

Developed Action Plans to Guide the Implementation of WBE

On this item, 71 percent of the respondents agreed to have developed action plans to give guidance on WBE implementation, and only 29 percent disagreed. This was a good sign, since without workable plans of action; it would be extremely difficult to implement WBE. Two campus managers interviewed were adamant that the campus had done enough:

CM 1: "Yes, it has done enough as some students have managed to secure employment, and some are permanently employed. However, students are not properly inducted at the workplace whilst still in college."

CM 2: "They managed to place students in different programmes, and some are permanently employed."

Nevertheless, responses from the implementers on the ground were contrary to the responses the campus managers gave, according to the responses below of one WBE champion and one senior lecturer. One WBE champion believed that the campus was not doing enough:

WBE Champ 1: "Unfortunately, not enough is done. The campus is not doing anything to make the programme known to host-employers."

One senior lecturer believed that it has not been optimally implemented:

SL 1: “*Certain programmes are running well with it, but for other programmes on the campus there is still a lot to be done in terms of optimisation.*”

Another very interesting view was shared by a WBE champion when it was revealed that there was uncertainty about the relevance of the workplace experience students are subjected to. It is indeed interesting to learn that a student can be placed as part of the NCV curriculum and compliance, but placed in an irrelevant work environment. Implementers will speak of compliance as students will be sent to workplaces, but relevance is vital for students to be employable.

WBE Champ 2: “*Some students are placed in irrelevant work environments. For example, a student in a Hospitality programme is placed in a Spar supermarket instead of a restaurant.*”

Communication between Relevant Stakeholders

The level of communication that exists between the campus management and workplace officers was also investigated. Findings revealed that communication between the campus management and work-placement officers based in central offices of the college was not viewed as effective. Only a few of the respondents responded affirmatively while the majority disagreed that there was effective communication between the campus managers and work-placement officers. This is another serious cause for concern, as campus managers are the ones to answer any questions regarding WBE matters at their sites. Ineffective communication will result in ever-increasing problems with WBE implementation. If campuses are not supported by these officers, this component will suffer (Marock 2015). Terblanche and Bitzer (2018) in a paper on understanding what makes for effective youth practice, reveals that at least one job placement officer is allocated to support specifically the Hospitality programme students, and is available every Wednesday. It is an interesting model of communication between the workplace officer and the college management.

Maintaining Strong Ties with the Host Employers

In order to ascertain that communication is made possible, strong ties should be maintained

with the host employers, and exploratory meetings must be conducted with the potential new host employers. Findings revealed that 71 percent of respondents agreed on maintaining strong ties with host employers, and only 29 percent disagreed. Getting potential new host employers on board would alleviate the shortage of host employers to accommodate a huge percentage of students for experiential learning. This answers the DHET's concern that students' lack of exposure to a real work environment is a major burden for them in accessing employment opportunities (van der Bijl and Taylor 2020; Ngubane et al. 2020; Gaffoor and van der Bijl 2019).

Marock (2015: 10) highlights the significance of maintaining strong ties with host employers in an interview with the campus head of the Hospitality Department of the False Bay TVET College in Muizenberg:

“*We now have 48 host employers for WBE in our database. The latest to come on board is the Food Lovers' Market and several guesthouses in the area.*”

Terblanche and Bitzer (2018) state that “the partnership elements a lot to do with developing robust and mature relationships between institutions of learning and placement providers, and ensure that both college and host-organisation supervisory staff are provided with activities to develop their leadership capabilities.” The study concludes that “there is a need for scholarship on leadership or specifically for role players in WBE/WIL implementation and management at higher institutional levels.”

Reviving the Campus Stakeholder Liaison Committee

In order to ensure communication, the campus Indaba committee must assist with hosting students for WBE. Findings revealed that 90 percent of the respondents indicated that the committee was working hard to ensure that students were assisted in securing placement for WBE. This also indicates that a lot is done at the campus level by the campus management in ensuring that there is compliance. Only 10 percent of respondents were negative about the role of the campus Indaba committee, which is not a serious cause for concern.

The committee is a perfect platform since it links the campus with outside stakeholders, the very same employers to host students for WBE. This procedure is apparent in the Kenya Education Sector Support Programme (KESSP) in Nyerere (2009: 5), where it is stated that the aims of the TVET sector galvanise support from the private and public sector and lobby the support of non-governmental organisation (NGO) and community-based organisation (CBO) who can promote the development of national skill training strategy. According to Gaffoor and van der Bijl (2019), “stakeholders must take hands in ensuring that TVET college students are afforded opportunities for pre-employment vocational training, on the job training and in-service training”. Vision 2030 proposes the “enhancement of closer collaboration between industry and training institutions” (Neroorkar and Gopinath 2020; DHET 2013: 40). The need for government intervention in Kenya was evident from policy guidelines “various policies on TVET backed by strategies that revolve around the promotion of partnerships among college stakeholders, and equity in access and linkages, and promotion of relevant skills development that meets the needs of the labour market” Nyerere (2009: 14). The same goes for the South African TVET sector.

Informing Students About Available WBE Opportunities

Most respondents agreed that students are informed about available WBE opportunities, and are assisted at the campus level to plan and access them. In essence, that is mainly the responsibility of workplace officers based in central offices. Most respondents had an idea who the work-placement officers were in their college. Fourteen percent had no idea, and 86 percent knew. The 14 percent of responses indicated that the officers were not visible enough to be known, and not hands-on at the campus level. They are the ones who are supposed to be the drivers of this component, so their role should be known. They must come down to campuses to give the necessary support.

Integration of WBE in the NCV Curriculum to Ensure Compliance

The findings of the study indicate the integration of WBE in the NCV curriculum structure

and its’ management. This also touches on the management of WBE as a component of the NCV curriculum. Management is important to ensure compliance; without effective management, integration cannot be realised (Paterson et al. 2017).

Findings also revealed that very few responses were negative, and 81 percent positive, which indicates that WBE is integrated into the NCV curriculum and effectively managed. Schuller and Bergami (2020) postulate that NCV was introduced with the main intention of responding to the national crisis of lack of skills and the ever-increasing demand by the South African government to combat that problem facing the South African economy. Respondents were also asked if they understood the importance of WBE in the NCV curriculum structure. Just a few of the respondents had no idea while the majority had some idea why WBE is considered the most important component. Marock (2015) and Höhns (2018) believe that WBE programmes, if effectively implemented, can build students’ confidence, improve their appreciation of the importance of employable skills, and provide a valuable orientation to the world of work. This implies that if WBE is effectively implemented it can yield the desired results for its beneficiaries, who are all stakeholders involved in WBE (Neroorkar and Gopinath 2020).

CONCLUSION

Compliance entails implementing all three components – theory, practice and WBE equally. However, surmising from the findings of this study, the following conclusions are drawn; although on some campuses there are activities geared towards compliance with WBE, policies are not clearly defined and communicated; there is a shortage of industries to host students for work experience. WBE must also be seen in the light of the new curriculum plan wherein the government has indicated its seriousness about WBE programmes in educational institutions, including the TVET sector, by launching the professional, vocational, technical and academic learning (PIVOTAL) programmes that aim to simplify students’ workplace experience, and establishing the new Directorate of Work Integrated Learning (WIL), which falls under the Ministry of Higher Education and Training. This all serves to indi-

cate the determination of the Department of Higher Education towards seeing to it that there is compliance.

The DHET has recognised that lack of students' exposure to the real work environment is a major burden for students in finding employment opportunities. If this problem is not addressed, South Africa may continue to face the problem of a huge number of unemployed TVET college graduates.

RECOMMENDATIONS

Based on the findings of the study. The following recommendations are made:

- i. Review of the WBE curriculum in TVET colleges in line with the South African Government National Development Plan (NDP) and the global Sustainable Development Goals (SDGs).
- ii. Establishment of strong collaborations between Corporate Organizations/Industries and TVET colleges. Such collaborations ensure adequate exposure of TVET students to capacity-building opportunities and necessary pre-employment work culture.
- iii. Encouragement of more interactions between students and the WBE officers in the central offices of TVET colleges. Such interactions enable deep awareness and free flow of information about the roles and responsibilities of each officer as well as the level of access available to the students.

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