

Partnerships between TVET colleges and industry to enhance work-related skills

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ABSTRACT: Presented in this study are the findings on partnerships between seven technical and vocational education and training (TVET) colleges and industry to enhance work-related skills in Limpopo province, South Africa. This research study was conducted through face-to-face interviews with 10 lecturers from five of the seven TVET colleges in Limpopo province. It was found that partnerships with industry were not effectively employed as part of the pedagogical approaches to knowledge and skill acquisition, since only the TVET Certificate N6 students are considered for work integrated learning (WIL) in the workplaces. Recommendations based on the study findings are there is an urgent need for partnerships between TVET colleges and industry to be explored within a clearly defined regulatory framework. Thus, the development of TVET college partnerships should not proceed in the absence of a clear set of policy, legislative and regulatory arrangements.

INTRODUCTION

The provision of quality technical and vocational education and training (TVET) is generally viewed as playing a vital role in promoting both economic and socio-economic development, increasing productivity, empowering citizens and alleviating poverty. In other words, TVET or vocational education serves a dual purpose, i.e. to further education, as well as to service the needs of the world of work. Technical and vocational education and training colleges provide vocational skills to youth and communities for middle level jobs.

It is assumed that students who complete vocational and occupational programmes from TVET colleges should have marketable skills required by industry and employers. The supply of occupational skills is central to economic growth and development in South Africa. South Africa regards technical and vocational education at both schools and colleges as a major contributing factor to improving the competitiveness of enterprises and the national economy [1].

Technical and vocational education and training are viewed as key levers for addressing myriad social ills, such as poverty, youth unemployment and skills shortages. Partnerships that exist between TVET colleges and industry are crucial in producing a skilled labour force in South Africa. It is in this regard that the Department of Higher Education and Training has policies in place to promote the growth of strong partnerships between TVET colleges and employers [2][3]. However, there are little or no studies that focus on how these two entities relate to each other in influencing economic and socio-economic development, productivity, empowerment of citizens and poverty alleviation in South Africa.

The Resource Development Strategy for South Africa notes that there are no specific models to adopt directly when establishing partnerships [4]. Furthermore, the report states that varying national, historical, political, ideological, cultural and socio-economic contexts of different TVET systems make it impossible to find generic turnkey solutions since what works in one context may fail in another [4].

Working partnerships between TVET colleges and stakeholders, particularly industry, are necessary to make TVET colleges responsive to the needs of stakeholders, especially, but not exclusively, the labour market [4]. To this end the study was aimed at investigating the partnerships between TVET colleges and industry in the Limpopo province. In the study, a review of literature also was carried out in relation to global trends on partnerships between TVET colleges and industries.

LITERATURE REVIEW

The high rate of unemployment and other economic adversities in most developing countries including South Africa has attracted the attention of stakeholders. In particular, TVET graduates who are supposed to be furnished with the

knowledge and skills for the world of work suffer from a high rate of youth unemployment. Research findings are that industry partnerships with TVET colleges, as well as exposure to workplace-based training, positively influence the employability of graduates [5]. A partnership is a contract between two or more persons, groups or organisations to put resources, efforts and intelligence together to achieve a set goal. The TVET partnerships with industry have great potential to improve the work-readiness (employability) of graduates.

In higher educational institutions in most developed countries, including Europe and America, partnerships with industry increasingly have become part of the pedagogical approach to knowledge and skills acquisition [6][7]. On the other hand, as in many African countries, Amadi opines that Nigerian TVETs have a limited impact on employability, trade or industrial growth [8]. Amadi further stated that the effectiveness and national development of Nigeria has been hindered by a poor synergy between TVET colleges and industry. This lack of collaboration between TVET institutions and industry negatively impacts graduate employability and economic development [8].

Also emphasised from research findings is the need for active involvement of all TVET stakeholders to produce skilled manpower; and that this can be achieved through the establishment of strong partnerships between public and private institutions [9]. In South Africa, there is a tacit acknowledgement that an effective TVET college sector in post-school education and training is a critical pillar of a successful economy. It can serve to alleviate poverty, build sustainable livelihoods, reduce inequalities and boost GDP growth [10][11]. However, there is a shortage of vocational skilled personnel in the country, because most TVET graduates are not employable, and most industry regard these graduates as not occupationally competent. More so, TVET graduates are not capable of creating their own employment, necessary for sustainable living.

It has been noted that there are various reasons why TVET college graduates are not employable, and these include the poor establishment of partnerships between TVET colleges and industry. The Human Resource Development Strategy for South Africa notes that although partnerships are widespread in TVET colleges, the term *partnership* is exceedingly loosely used, because the focus mainly is on the quantifiable measurement of partnerships, that is, number of partnerships rather than their outputs [4]. It is in this regard that the researchers embarked on a comprehensive investigation to determine the nature of partnerships that exist between TVET colleges and industries in Limpopo province. The aim was to provide recommendations to enhance their effectiveness.

RESEARCH METHODOLOGY

The research study was based on qualitative methods from face-to-face interviews. Ten lectures were held from five of the seven TVET colleges in Limpopo province. Participants were selected through purposive and convenience sampling techniques. A voice recorder, video camera, digital camera, reflective logs and group evaluation minutes were the research tools. The interviews consisted of 15 semi-structured questions. The credibility of findings was assured by carrying out the research according to the canons of good research practice and submitting research findings to the subjects to confirm that the investigator had correctly understood them [12].

To ensure validity, the researchers chose a seasoned colleague from another university to prepare the questions. This colleague was well versed in TVET issues to ensure no personal bias was within the questions and led to as much candid information as possible from research participants. The moderator ensured that the questions led to genuine responses that were not biased by the interviewer's expectations. The researchers also applied respondent validation by checking results with participants to see if they still reflected their views.

The researchers transcribed the interviews and confirmed the content of the scripts with each interviewee, who confirmed that the interpretations and conclusions reached reflected their views. Qualitative data from the interviews were analysed by reading transcripts repeatedly to identify patterns, categories and themes using relevant codes.

The researchers made efforts to conserve the original language and sentence structure of each statement. Three sources of category nomination were used including in vivo coding (of participants' exact words), descriptive coding (coding based on the researcher's interpretation of a participant's words) and deductive coding (based on a codebook developed before the research and based on theory) [13]. Each code was compared with previous codes to ensure uniformity. In the third step, the meaning of each significant statement (unit) was specified. In the fourth step, based on the summative formulated meanings, units or codes with statements that corresponded in content were grouped together to form emergent themes [14].

To minimise prejudice, while undertaking the iterative procedure of theme development, the researcher made efforts to identify any preconceptions by participants of the partnerships between technology and vocational education and training colleges and industry [15]. The final step involved classifying emergent themes into meta-themes, which were then presented and discussed with verbatim material.

Before the study, the researchers applied to the TVET colleges in Limpopo province to seek permission to conduct the study. The study began as soon as the ethics clearance or approval was received. All the ethical procedures were adhered to in the research. All participation was voluntary, and participants could withdraw from the process at any

time. Also, participants were informed their details would be confidential and no names would be revealed. Furthermore, the participants would not be involved in a discussion of sensitive topics, which might be invasive, intrusive or potentially harmful.

When collecting the data for this study, the researchers adopted the following ethical principles by protecting the rights, interests and sensitivities of the respondents: reporting the research findings in a full, open fashion to the scientific community; striving to maintain objectivity and integrity in the conduct of the research at all times; minimising the possibility that the results would be misleading; disclosing the research method used; and recording data in a durable and appropriately referenced form. The recordings of the interviews were discussed first with the respondents, to gain permission [16][17]. It was important that this study be academic in nature and that the outcomes be available to the relevant policymakers, as well as all interested stakeholders about the partnerships between TVET colleges and industry in Limpopo province. Recommendations based on these findings were adopted to pave the way for remediation.

RESULTS

Demographic information for the lecturers who participated in this study was elicited through the first part of the interviews. This was done to better contextualise the results. Displayed in Table 1 below are the profiles of the participants:

Table 1: Profiles of the participants.

Gender	Female		Male
	4		6
Age	20-30 years	31-40 years	50 years and above
	3	5	2
NQF level taught	NQF level 2	NQF level 3	NQF level 4
	1	2	7
Teaching experience at TVET college	1-5 years	6-10 years	11-15 years
	2	3	4
			16 years and above

The study explored the teachers' perceptions under the following themes, which emerged from their responses:

1. The work placement in industry integrates the students' learning. The lecturers were asked to elucidate their experiences on how the work placement integrated learning for students. Some of the lecturers' views are presented below:
 - *Honestly, I am not involved in that.*
 - *The students are taken to skills development and it is the college that seeks placement only for those that have completed N6. Industries do not offer internships to those that have not completed, which means they have to finish first.*
2. Partnership relevance to the country's needs for innovative, creative people. Lecturers were requested to indicate whether partnerships between TVET colleges and local industry were addressing the need for innovative, creative people. Below are some responses from the interviews:
 - *I think [students benefit] a lot from partnerships as they get to be experienced in various special areas; making them ready to meet the country's need for skilled workers.*
 - *I know that places like Medupi, Eskom Matimba [and] businesspeople in town engage our students in WIL [work integrated learning], and that prepares the students to be innovative and creative skilled people who can solve the country's problems.*
3. International co-operation and partnerships with TVET colleges in Limpopo. Lecturers were requested to elucidate the present status of international co-operation and partnerships with TVET colleges in Limpopo. Below are some responses from the interviews:
 - *Not [any] now, but if we manage that, students will not struggle with employment because they will be able to develop [as] entrepreneurs.*
 - *I do not know of any except that last time there were people who went to Japan with this course and we also have people who went to China, regarding the cross-programme.*
4. WIL programmes to prepare students with the necessary skills and knowledge for work. The lecturers were asked to elucidate their experiences on WIL programmes in relation to the preparation of students with necessary skills and knowledge for employment. Some of the lecturers' views are presented below:
 - *Although not all the students get the opportunity to be placed in industry for practical activities, those who do have adequate time [practise] requisite skills during training.*

- At some workplaces, especially within the community, there is inadequate provision of training materials.
5. The extent to which WIL programmes prepare the students for employability. The lecturers were asked to elucidate their experiences on how preparation of work integrated learning affected students' employability. A sample of the lecturers' views are presented below:
- Some WIL programmes still offer routine tasks instead of [a] broad set of generic skills, therefore fail to prepare students for employability.
 - The insufficient involvement of industry in WIL undermines authentic students' learning and acquisition of relevant skills for employability.
6. Impact of WIL programmes on students' skills to contribute to the national and global economies. The lecturers were asked to elucidate their experiences on how WIL programmes ensure that students acquire high-level skills as a measure of their ability to contribute in the national; hence, global economy. Some of the lecturers' views are presented below:
- Currently WIL programmes are not good enough as our TVET graduates still lack both technical knowhow and generic skills.
 - There is [a] lack of competence in the synthesis [...] of specific knowledge and general skills, so our TVET graduates' ability to contribute in the national and global economy [is very limited].
7. How occupational capacities were acquired during the integration of teaching and learning of vocational subjects with practice. The lecturers were asked to elucidate how occupational capacities were acquired during the integration of teaching and learning of vocational subjects with practice. Some of the lecturers' views are presented below:
- Currently learners are not exposed to strong vocational experiences at workplaces since fewer industries seem willing or able to provide work-based learning.
 - Most industries simply provide the students with observational roles and performing isolated, monotonous work, which do not develop their full occupational capacities.
8. The influence of partnerships in reducing skill shortages and skill mismatches. The lecturers were asked to elucidate their experiences on how partnerships influenced successful labour market outcomes, such as reducing skill shortages and mismatches. Some of the lecturers' views are presented below:
- Stronger partnerships are still required in order to ensure that all our TVET graduates acquire the technical skills and knowledge necessary for effective participation in the workforce.
 - Most of our students are not readily employable as they lack the necessary skills to meet the demand or the needs of the labour force. Stronger partnerships between industry and TVET colleges are urgently required to address this challenge.
9. The TVET college curricula responsiveness to the needs of the country. The lecturers were asked to elucidate their experiences on the TVET college curricula responsiveness to the needs of the country. Some of the lecturers' views are presented below:
- The curriculum is outdated, therefore does [not] respond to the needs of students, changes in technical knowledge and skills, and latest trends in the labour market.
 - The curriculum is not responsive to the needs of the workplace as our graduate students remain unemployed due to [...] inadequate knowledge and skills.
10. Evidence of the paradigm shift, from administrative compliance to adaptability and innovation to create solid partnerships for TVET colleges. The lecturers were asked to give their views on whether or not there was evidence of the creation of solid partnerships for TVET colleges that had its roots in a paradigm shift, from administrative compliance to adaptability and innovation. Some of the lecturers' views are presented below:
- The great need for technically skilled workers is not being met; a problem which indicates that the partnership platforms for TVET colleges and industries are still more administrative compliant than [adaptable and innovative].
 - There is a misalignment between the TVET curriculum and industry, as employers continue to prioritise growing their businesses and the colleges to get students qualified in their separate spheres. This shows that there are not yet solid partnership platforms for TVET colleges and industry in our country.
11. The effectiveness of collaboration between TVET colleges and industry. The lecturers were asked to elucidate their experiences on how effective the collaboration between TVET colleges and industries were. Some of the lecturers' views are presented below:

- *Colleges do not get to know what the needs of industry are, as there is no direct communication between industry and TVET colleges.*
 - *Effective collaboration will only exist if the quality of TVET college graduates meets the needs of industry, through constant exchange of information between the two bodies. This is not the case at the moment.*
12. The existence of a memorandum of understanding (MoU) with local industries for the placement of students. The lecturers were asked to elaborate on whether or not the college had a memorandum of understanding (MoU) with local industries for the placement of students. Some of the lecturers' views are presented below:
- *Not that I know of.*
 - *I should think so, since we send our students who are on exit-level to industry, there should be some binding agreement between our college and industries.*
13. Acceptance of students by the local industries for WIL, for them to complete qualifications. The lecturers were asked to clarify if the local industries accepted students for placement, to complete their qualifications. Some of the lecturers' views are presented below:
- *Yes, some do. I am not sure if all of them do.*
 - *Students struggle to get placed; there is [a] need for the administration of placement to be improved.*
14. Participation of local industries on the work-base experience (WBE) for TVET programmes. The lecturers were asked to explain their experiences on how local industries participated in the work-base experience (WBE) for TVET programmes. Some of the lecturers' views are presented below:
- *I think they only concentrate on practical aspects that involve their products, not our curricula.*
 - *The TVET programmes are the colleges' responsibility to implement; however, I think the industries complement us by engaging our students in more meaningful practical experiences as they are better equipped than our workshops.*
15. Do local industries employ their staff and send them to this college for the students' theoretical component of their qualification? The lecturers were asked to expound on whether or not the local industries employed their staff to assist students' theoretical component of their qualification. Some of the lecturers' views are presented below:
- *I believe that they only engage our students once they are placed in their companies.*
 - *I have not seen anyone from industries in our classes or workshops.*

DISCUSSION

With reference to the above findings, it is clear that in the case of higher educational institutions in the province, partnerships with industry are not effectively promoted as part of their pedagogical approaches to knowledge and skill acquisition, because only N6 students are considered for WIL [6][7]. The findings also indicate that since the partnerships between TVET colleges and industry are only for N6 students, it is not relevant to the country's needs for innovative, creative people. This finding is supported by Woldetsadik who emphasises the need for the active involvement of all relevant TVET stakeholders, to produce skilled manpower [9]. This can be implemented through the establishment of strong partnerships between public and private institutions.

The findings are also echoed by Amadi, who states that effectiveness and national development have been hindered by myriad factors related to the poor synergy between TVET colleges and industry [8]. This lack of collaboration between TVET institutions and industry in Limpopo province negatively impacts graduate employability and economic development [8].

It can be drawn from the above findings that there is no evidence of the paradigm shift from administrative compliance to creating solid partnerships with TVET colleges. Rather, the focus mainly is on the quantifiable measurement of partnerships, that is, number of partnerships rather than their output. In this regard, the Human Resource Development Strategy for South Africa notes that although partnerships are widespread in TVET colleges, the term partnership is exceedingly loosely used; since the focus mainly is on the quantifiable measurement of partnerships, that is, number of partnerships rather than their output [4].

CONCLUSIONS AND RECOMMENDATIONS

It was found from this study that partnerships between technology and vocational education and training colleges and industry to enhance work-related skills in Limpopo province need to be improved. There is need for a strong relationship between colleges and industry to improve the quality of training in colleges and ensure the quick absorption of college graduates into jobs. Through stronger partnerships, colleges also will be able to determine the skills needed for the labour market. At present, not all students are engaged in WIL as this is limited to N6 students only.

There is an urgent need for partnerships between TVET colleges and industry to be developed within a clearly defined regulatory framework that sets out the operational parameters. Thus, the development of TVET college partnerships should not proceed in the absence of a clear set of legislative and regulatory arrangements. There is need for TVET colleges to establish and strengthen partnerships with various government entities (national, regional and local), local communities, social groups, state-owned entities, educational institutions and labour market actors, beyond only employers.

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