

Retraining TVET Trainers in Kenya for Changing Global Trends and Dynamics

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Abstract

TVET skill training is recognized worldwide as an avenue for preparing citizens for the world of work. Through TVET institutions, industries and organizations expect to receive prospective employees with high standard employable skills who will turn round the production and manufacturing to a competitive level. Unfortunately, industries continue to express considerable dissatisfaction with the general low level employability skills demonstrated by most prospective TVET graduates. This has been attributed to the fast changing industry technology and the general reluctance of TVET training institutions to infuse these skills into prospective trainees. Nonetheless, this is an indication of the status of TVET institutions which have for long time suffered negative perception and marginalization by most African governments. Because of this, facilities and equipment of training in these institutions are either inadequate, obsolete or cannot compare to those in industries where prospective graduates will work in future. Furthermore, reports show that most trainers in TVET institutions lack basic technical skills to even operate simple workshop machines and equipment used for training. Experts have attributed these to existing gaps in TVET teacher pedagogy, lack of updating trainer skills, insufficient involvement of industry and have recommended various strategies for revamping performance of this noble institutions including improving increasing funding and retraining of TVET trainers. This research adopts desktop research and survey methodology and sought to establish TVET trainer's perception, challenges and mitigation put in place in addressing delivery of desirable employability skills for changing dynamics of industry. The findings and recommendations are expected to assist in addressing the shortcomings identified in TVET trainer capacity building programmes.

Key words: *Retraining, trainers, trends, industry*

Introduction

TVET institutions, compared to other academic institutions may be a drop in an ocean, but its impact is far greater than all these institutions combined. As clearly described by UNESCO and ILO (2003), TVET is the master key for unlocking all the potentials hidden under the universe. It is probably the only vehicle that can be relied upon for preparing the future workforce for the world of work and decent living.

TVET trainers play a crucial role in delivering this vital skills to prospective trainees. They shape the direction and influences other educational inputs to achieve the stated goals of the education industry. The extent to which this can be done depends on the quality and quantity of training received by teachers since the quality of educational outcomes depends to a great extent on the quality of teachers (Eze, 2016). A fully qualified technical/vocational trainer is one who is certified in his/her area of expertise, and has appropriate level of pedagogical skill (Bird, 1997). He should also possess the appropriate personal, ethical, professional, teaching qualities and play an influential part in helping to shape students' attitudes and aspirations and that they support students at critical stages of their lives (Mehdinezhad, 2008).

However, the attention given to these very important elements of TVET has been very wanting in most of the developing countries. It is regrettable that a lot of focus has been given to basic and university education trainers which are purely academic in nature with less regard to technical education which drives the global economy. Without qualified and well experienced TVET teachers and trainers to plan for and execute TVET programs not much can be realized in the industry. TVET teachers need to be supported so that they increase their capacity, knowledge of the subject matter and be informed of latest trends in industrial technology. Improving TVET teacher quality and teacher preparation is no doubt a simple task, but it is worth doing.

In most countries, TVET trainers are absorbed directly from the universities and teacher training colleges. These teachers must have undergone mandatory training in various specialized areas before they are allowed into the classrooms as trainers. However, given the dynamics of the industry, mere completion of TVET teacher training alone is not enough to prepare a trainer who will be expected to train a workforce for the industry. Preparing a competent trainer requires first providing them with further opportunities for industrial internships in order to experience the industrial environment where he can learn from industrial experts and be able to polish and fine-tune his/her skills in tandem with industrial standards.

Nevertheless, because of the ever changing industrial technology and dynamics, TVET trainers must constantly be reminded of the need to continuously seek to update and upscale their skills so as to remain relevant with the new changes brought about due to these technological disruptions. TVET pedagogy should forever set its antennas high in order to remain sensitive to any new industrial demands and plan ways for infusing these changes into its teacher training curriculum, programs and training methodologies and to ensure that teachers understand and transfer the most desirable employability skills to their prospective trainees.

On the other hand, it is important that the TVET institutions, managers and stakeholders remain committed to their course by ensuring that their institutions acquire the right training facilities and equipment for training. They also need to endeavor to walk extra miles and motivate their trainers to embrace training and retraining as a way of updating their skills with relevant industrial skills.

Purpose of the Study

The main purpose of this study was to seek to establish TVET trainer's perception, challenges and mitigation put in place in addressing delivery of desirable employability skills for changing dynamics of industry.

Objectives of the Study

1. To identify emerging global trends that will shape TVET teacher training for delivering employability skills
2. To identify existing gaps among TVET trainers that hinder delivery of competitive employability skills to meet industry demands.
3. To evaluate challenges hampering adoption of TVET trainer education for delivering competitive employability skills.

Significance of Study

Global competition has increased the pressure to produce high-quality products. Value-added work is seen as being at the core of economic success for 21st century economies all over the world. Competitive economic advantage can only be realized through continuous upscaling TVET skills. Quality TVET teacher education, training is of outstanding importance for not only sustainable economy but realization of competitive advantage worldwide.

Literature Review

TVET skills are recognized worldwide as an avenues for addressing socio-economic and environmental demands by helping youth and adults develop the employable skills for decent work and entrepreneurship. In fact, there is no time in history than it is currently when the demand for TVET skills has increased and the globe is experiencing untold disruptions due to climate change, digitalization, industrialization, food insecurity and COVID-19 pandemic.

TVET skills as the master key to solving most of the global challenges, a greater role has been bestowed upon the TVET training institutions to train these

indispensable skills (Kerre, 2001). Training is concerned with the development of knowledge and skills to be used immediately or in the very near future and deals with developing people who already have or who are just about to enter a job (Micheal & Diane, 2008)

Through TVET institutions, industries and organizations expect to receive prospective employees with high standard employable skills who will turn round the production and manufacturing to a level that will earn unique competitive advantage. Unfortunately, there is a raging debate from industries who have continuously expressed considerable dissatisfaction with the general low level employable skills demonstrated by most prospective TVET graduates.

UNESCO, ILO and most TVET scholars have attributed this to the negative attitude and perception by the leadership mostly in the developing countries who have deliberately pushed TVET institutions into periphery and marginalization while placing undue focus on purely academic education (Makworo, & Mwangi, 2012). Because of these, TVET training institutions have suffered under-funding and insufficient human resource. Furthermore, the facilities and training equipment in these institutions are either inadequate, obsolete or cannot meet the facility requirements of TVET institutions and often inferior to those in industries where the graduates will eventually work (Chepkemei, Watindi, Cherono, Ng'isirei, & Rono, 2012).

These challenges have had tremendous impact on the TVET graduates and has ultimately laid an additional burden on the employers who are expected to retrain new employees in job-specific technical skills besides acquainting them with the behavioural norms, standards, and expectations in their work places (Micheal & Diane, 2008). No doubt, this is an indication of a failure on the side of the TVET institutions and trainers who seem to render half-baked services by inadequately equipping young people with undesired skills.

Experts argue that the quality of product is often determined by the level of knowledge, skills and abilities of the producer. Consequently, it is impossible to have TVET trainees with right employability skills when the trainers themselves are not adequately equipped with the right tools and training skills. A survey into most TVET institutions confirms that most TVET trainers show general lack of competence in technical, decision making, trouble shooting and problem solving skills. It is a shocking reality that most of them cannot even operate simple workshop equipment or carry out basic data processing and analysis (Okorafor & Okorafo 2013).

It is a fact that TVET institutions are comparatively more expensive to run since they require more equipment, hand tools and to some extent learning/teaching materials are often expensive to acquire and maintain. Nonetheless, industry is never forgiving and may not understand this challenges and therefore these should not be an excuse for not providing quality employable skills for the industry, TVET institutions are instead encouraged to be creative and innovation while looking for other avenues such as forging linkages and collaborations with specific industries where they can access these equipment and use them for training (Okorafor & Okorafo 2013).

The level of competence of TVET trainers is also wanting, especially in Africa where there is glaring shortage of competently trained TVET trainers (Tamrat, 2020). In Kenya, most of the TVET trainers are recruited directly from Kenya Technical Training College (KTTC) and local universities. Most often, those with university degrees are preferred over those who graduated from KTTC. There is a feeling that undue preference is given to trainers graduating directly from the universities whose education background is biased towards academic rather than on technical skills unlike their counterparts from the Kenya technical Trainers college (KTTC). It is doubted whether their low level skills will provide better skills delivery in such institutions where technical skills acquisition is an indispensable need. Majority of them are employed even before acquiring sufficient technical and industrial experiences, hence they do not have sufficient practical exposure in related industries where they are expected to train. At the same time, due to unattractive salary schemes, it is almost impossible for TVET institutions to attract qualified personnel with relevant industrial experience to serve as trainers (Sang, Muthaa & Mbugua, 2012).

The TVET teacher pedagogy, its program design and the nature of learning materials and methodology are also challenges whose consequences are believed to negatively affect the quality of TVE trainers (Ayonmike & Chinyere, 2014). Interrogation into these important tools reveals that most of its content is not relevant especially for preparing a 21st century workforce. A well-developed curriculum is that one which help students to learn how to cope with new challenges and prepare them for the long life learning besides also providing them with the basic set of skills it takes to transfer from one job or area of work to another once they have entered the workforce.

Complains have been raised concerning the duration it takes for reviewing the TVET curriculum and who are involved in these process. As a rule of thumb, these documents are supposed to be reviewed and up-scaled at least every 5years and the industry must also be involved (Brewer & Comyn, 2015). This is usually not the case in most developing countries and Kenya is not an exception.

Nonetheless, Ayonmike and Chinyere (2014) also noted that most trainers in most TVET institutions have been in classroom for far too long since they graduated from their teacher training colleges and rarely do they find opportunities for attending teacher refresher seminars and workshops. This puts in doubt the relevance of the skills they deliver to the trainers considering the speed at which the technology is changing in the industry.

Training is a very important aspect of staff development (Ezeani & Oladele 2013) also an important motivational strategy which in turn influences the educational outcomes (Ofojebe & Ezugoh 2010), Training and retraining shapes the personality, attitudes, habits and also improve effectiveness and performance of trainers. It also helps to update, develop and broaden the knowledge that teachers had acquired during the initial teacher education and/or provide them with new skills and professional understanding (Ngala & Odebero

2010). Trainers should be given opportunity to regularly attend training and retraining so as to gain latest knowledge and technology in industries which they can transfer into students hence making them more relevant and with the most desired employable skills. Training and retraining of teachers can be done through attending in-service training, conferences, workshops, seminars and demonstrations.

It is in these perspectives that TVET experts agree that there is a universal need for retraining as means of improving TVET system in Africa and to address the issue of TVET graduates not being competent and unemployable.

Considering the role TVET is playing in developed countries such as Japan, USA, Germany and Great Britain, there is need to revitalize TVET in Africa especially in the area of TVET trainer. As a matter of fact, the benefits of retraining of TVET trainers cannot be overemphasized. Thus, retraining of TVET trainers in Africa might lead to trainers who will be more innovative and technology driven and with improved knowledge, skills and attitudes of TVET personnel's which will ultimately result in TVET graduates who possess employable skills (Odu, 2011)

However, retraining of TVET trainers in Africa is experiencing many challenges. These challenges include lack of adequate and modern training facilities, lack of motivation for retraining, lack of proper cooperation and partnership with industries, inadequate curriculum, lack of funding, lack of interest, among others (Obwoye, 2016). These inadequacies/challenges are addressable when all stakeholder focus on attainable strategies to realize the benefits in TVET.

Consequently, advanced level discussions are underway which have recommended various strategies including reviewing of TVET curriculum with special emphasis on the TVET teacher training curriculum, and motivating the trainers to embrace the need for regularly updating their skills. Furthermore, governments are encouraged to solicit for opportunities for trainer internship and more industrial involvement through public private partnership (PPP) (Obwoye, 2016).

Challenge faced by the 21st Century TVET Trainers in Africa

The 21st century presents the TVET trainer with a dilemma. This is because the technologies used in training have become obsolete and are somehow rarely currently used in industry. The skills harbored by the trainers have hence become obsolete and re-skilling is necessary (Obwoye, 2016). The technologies and techniques of training and learning have diversified due to the advent of computers, computer networks and mobile devices.

Most developed countries have turned to competence-based education and training (CBET) where learners are able to learn state of the art skills which are relevant to the industry needs. The CBET approach allows students to advance based on their ability to master a skill or competency at their own pace regardless of environment. This method is tailored to meet different learning abilities and can lead to more efficient trainee outcomes (Obwoye, 2016). The capacity of TVET systems to provide high quality and relevant training depends largely on the quality of its trainers, and, by extension, on the quality of the training they undergo. Any disparity and lack of re-skilling will greatly affect the quality of graduates.

Methodology

This study was a quantitative survey which employed questionnaire method as a way of collecting data from a population that was considered to be most affected by the problem under study.

The main population of the study were the long service TVET trainers and newly recruited trainers pursuing in-service teacher education at Kenya Technical Training College (K TTC). A total of 550 TVET trainers from Nairobi Technical training institute and newly employed trainers were involved in these study

One hundred well designed and tested questionnaires were issued to the trainers and out of which 55 were returned which represented 10 percent of the study population. The questionnaire was organized in sections which captured data on areas listed: On the first section of the questionnaire, respondents were asked to give their opinion, from a list provided, on various employability skills they often consider as priority in their training. Responses were evaluated against those identified by industry.

The second section of the questionnaire explored areas of industrial technology with an interest to establish from the respondents how they compare the level of technology know-how with that of their students and that which is applied in industry.

The third section sought to establish the gaps in teacher training that hinders effective delivery of employability skills to trainers. The respondents were asked to give their opinion in regard to pedagogy coverage and content, availability of training facilities, time allocation for practical sessions, technical and administrative support and motivation as well as their attitude towards retraining and internship opportunities.

The fourth section of the questionnaire requested for trainer's recommendation concerning what in their views they thought was the most appropriate intervention and mitigation measures that if put in place will address the identified shortcomings of training skill delivery. With respect to data and analyzed and represented in graphs.

Findings

Out of the questionnaires returned, 74.5% and 25.5. % of the respondents were male and female respectively. Analysis of these questionnaires indicated that majority of the males had prior experience working in related industry before they were employed as trainers. However, the longest period they served in industry was between 0-3 years. Analysis in Figure 4 show that most TVET trainers face challenges in catching-up and implementing skills necessary for the changing technology in industry. In fact, 17.74 % of respondents admitted that some trainees, especially those already working in industry, have better understanding of the latest technology and knows what industry expects than the trainers.

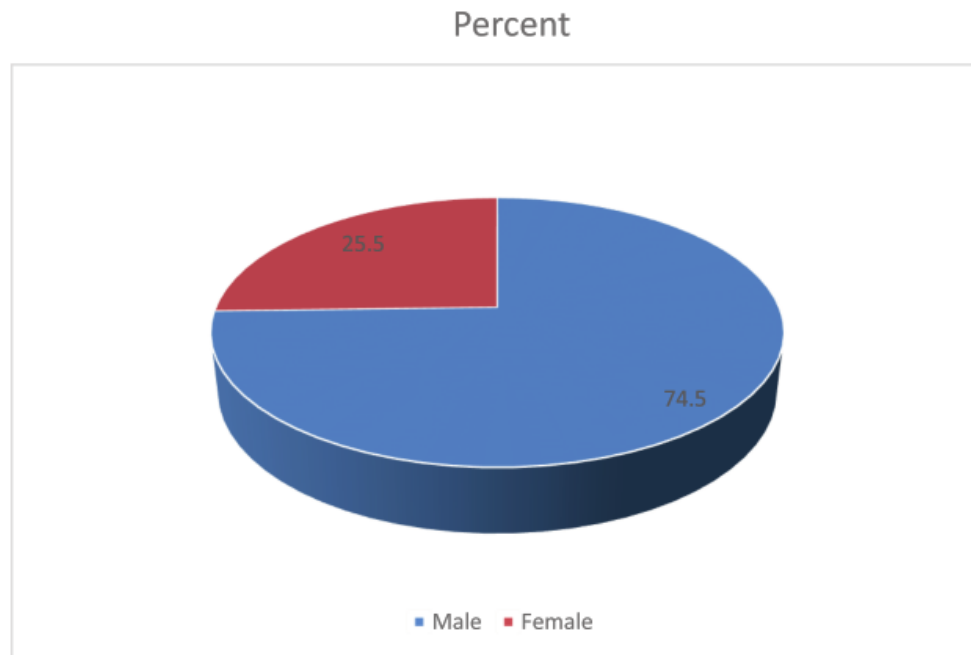


Figure 1: Respondents' Gender

The results showed that majority of TVET trainers (56.4%) had over 10 years' experience working as trainers in TVET institutions. This is an indication that most trainers are too long experienced in classroom environment. This begs the question as to whether their long stay in the classroom may have confined their academic mindset while eroding the interest for updating themselves with latest technological changes happening in related industry.

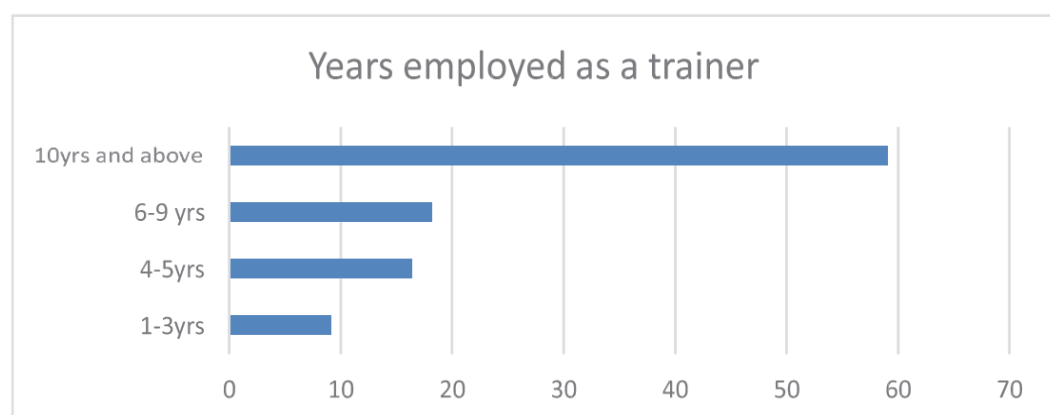


Figure 2: Length of Training Experience in TVET

This is confirmed in the same study where it was noted that majority of the TVET trainers had cumulatively less than 3 years' prior experience of working in related

industry . This is a pointer to the perception that most of TVET trainers lack adequate industrial exposure and therefore cannot be expected to effectively transfer the most desired employability skills and technology to their prospective trainees in class.

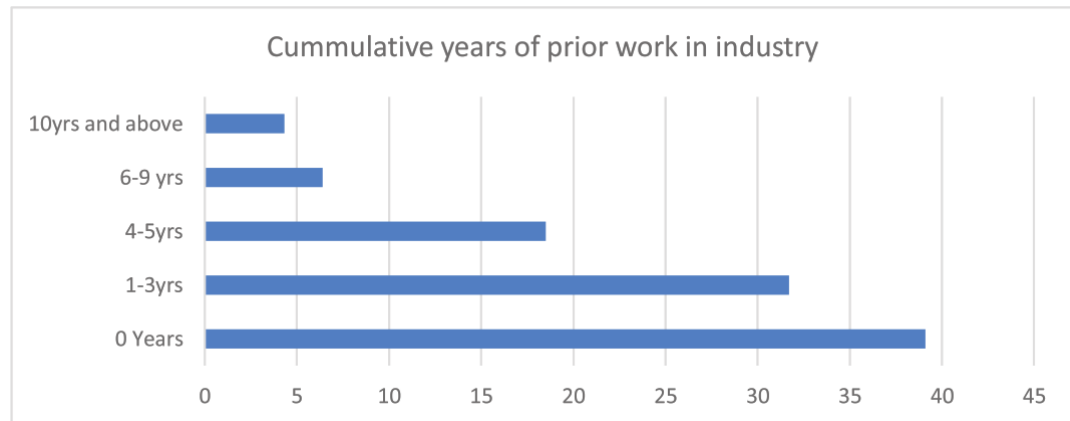


Figure 3: Responds' Cumulative Years of Prior Work in Industry

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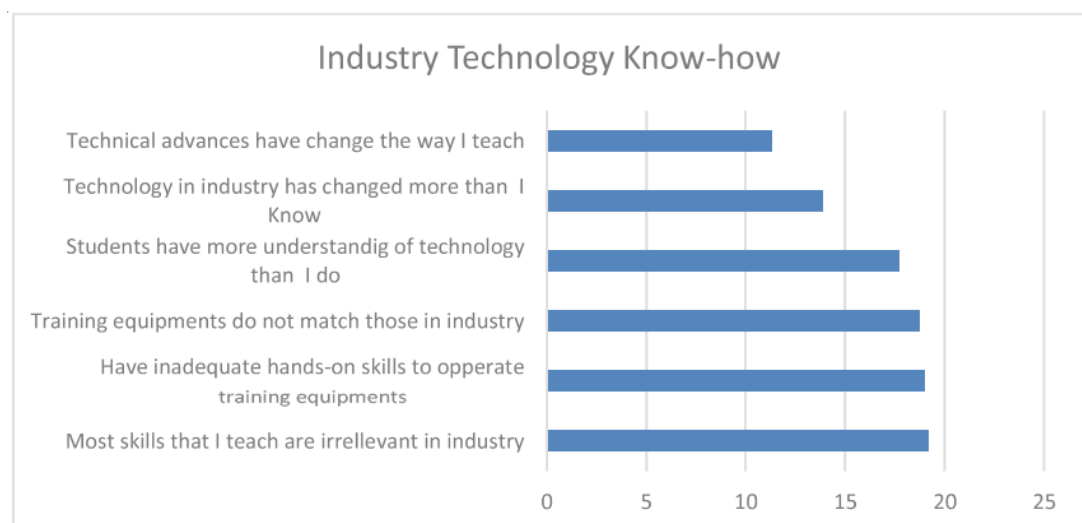


Figure 4: Industry Technology Know-How

Employability Skills for the 21st Century Industry Demands

The study also highlighted disparities between what was identified as the most employable skills in the industry and among the trainers. Whereas the industry identified good communication, creativity, technical, problem solving, digital literacy skills and entrepreneurship as the most essential skills, most trainers were most focused on mere passing academic examinations. A scrutiny into most syllabuses taught in TVET institutions revealed that communication skills, social studies and ICT skills were only taught in the first academic year.

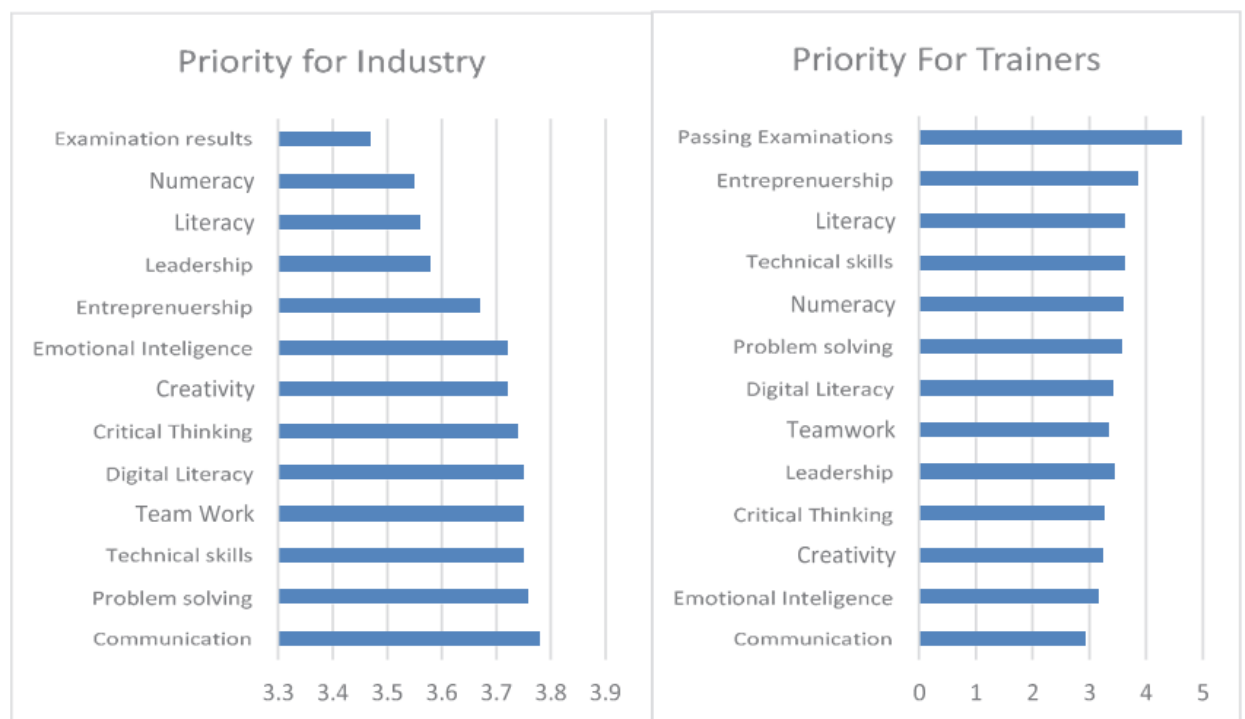


Figure 5: Comparison of Employability Skills for Industry and the Trainers

Challenges Hindering Trainers Delivery of Employability Skills in Classroom

Most respondents were concerned about the misplaced priorities by TVET managers whose interest was supply driven and not demand driven, insufficient time for practical, lack of hands-on experience, motivation and inadequate training facilities were the major impediments affecting delivery of employability skills among TVET trainers. See Figure 6.

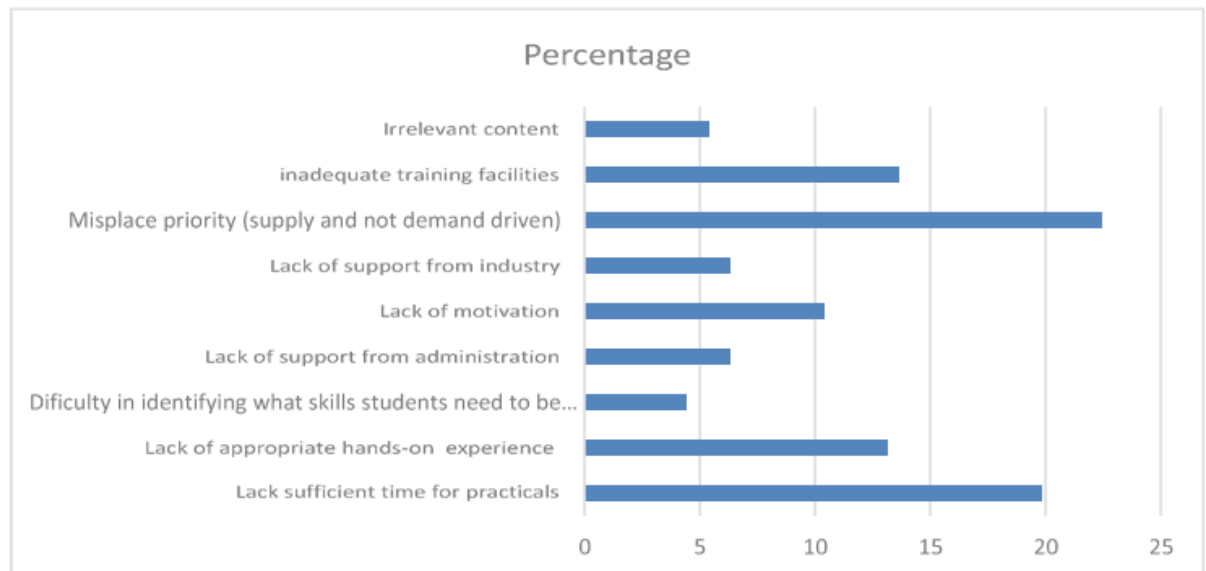


Figure 6: Challenges Hindering Trainers Delivery of Employability Skills in Classroom

Recommendations for Addressing Gaps in Trainer Capacity Building

Most respondents at 28.29% suggested adopting a paradigm shift from exam to skill oriented training. They also approved making TVET retraining and internships a mandatory requirement for trainer appraisals at 16.05%. They were also of the opinion that industries be allowed more space for participation in teacher training. Friendly policies for trainer motivation was also suggested as a way for improving TVET trainer delivery of employability skills.

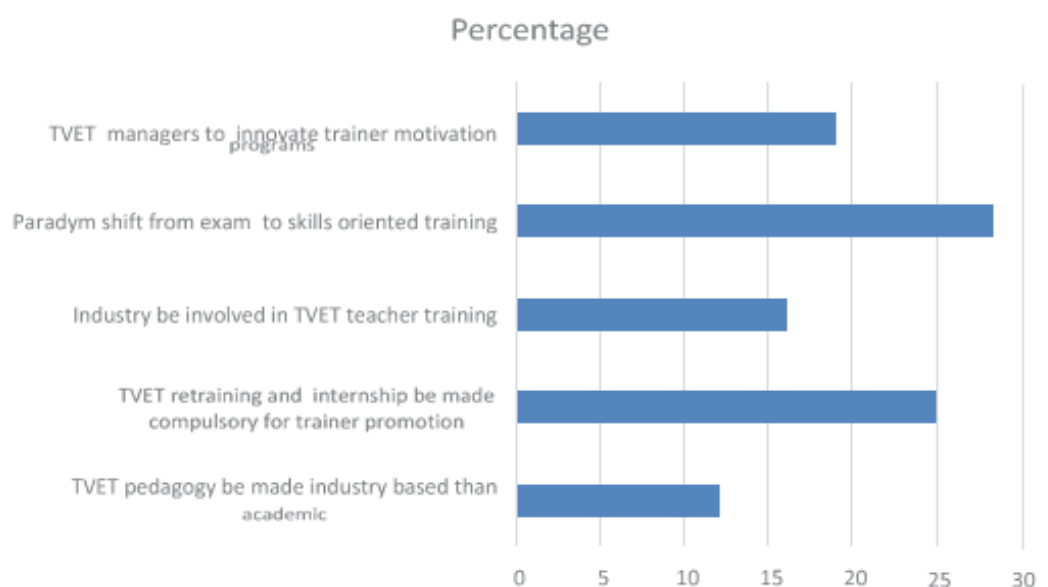


Figure 7: Recommendations for Addressing Gaps in Trainer Capacity Building

Conclusion

The evolving business needs, technological advances and new work structures, among other factors, are redefining what are considered to be valuable skills for the future. Most TVET trainers appreciate that the industry is not happy with the training they offer to prospective trainees. They also admit that part of the problem is due to the inadequate skills at their disposal that they offer to trainees.

The unjustified focus on examination rather than impartation of employability skills which are mostly required in the industry is a misplaced priority for TVET institutions. TVET should stick to their mandate which is, inculcating technical knowledge and skills required for problem solving, effective communication and entrepreneurship which are fundamental in industry and society.

Inadequate preparation of trainers by teacher training colleges and universities and recruitment of trainers have largely contributed to the mess witnessed in TVET skills delivery. It is a genuine concern that the TVET pedagogy has glaring gaps that must be urgently addressed so that trainers can derive maximum benefit from the training they receive for the betterment of the student and industry.

Nonetheless, sustainable TVET skill delivery can only be achieved when TVET managers will appreciate the importance of sourcing the right training equipment, fostering capacity building among its trainers and creating favorable training environment where trainers can be motivated and supported to excel in their knowledge skills and abilities to a level that is commensurate with the standards of industry.

Recommendations

- TVET teachers need to embrace retraining and upskilling so as to master how to teach trainees how to work effectively, express themselves clearly, analyze information, manage resources and take responsibility for particular tasks
- TVET teacher training colleges must evaluate and address gaps in TVET pedagogy and curriculum. These cannot be done in isolation and industries must also have a stake in these.
- TVET trainer colleges must be equipped adequately with relevant training equipment.
- TVET trainer qualifications must be purely technical and not academic and must demonstrate industrial experience before employment

- Employability skills must be given priority and must be infused throughout the curriculum and teachers given an opportunity for internship before being allowed in class to teach.
- TVET trainer appraisals should be based on the number of training and retraining one has undertaken in the course of his work.
- TVET institution managers should encourage and facilitate trainers undertaking retraining programs.
- Industrial collaborations and partnerships to be enhanced for the sake accessing training equipment and facilities that will enable trainers to have hands-on learning experiences.

References

- Ayonmike, C. S. (2014). *Training the trainers in technical vocational education and training institutions in Africa: A tool for producing competent graduates*. Department of Technical and Business Education, Delta State University PMB. 1, Abraka, Nigeria 2014
- Bird, M. (1997). *Training of teachers/trainers in technical and vocational education*, UNESCO-UNEVOC. 7, Place de Fontenoy 75352 Paris 07 FRANCE.
<https://files.eric.ed.gov/fulltext/ED424421.pdf>
- Brewer, L., & Comyn, P. (2015). *Integrating core work skills into TVET systems : Six country case studies*. International Labour Office, Skills and Employability Branch, Employment Policy Department. - Geneva: ILO. https://www.ilo.org/wcmsp5/groups/public/---ed_emp/---ifp_skills/documents/publication/wcms_470726.pdf
- Chepkemei, A. W'atindi, R., Cherono, K. L. Ng'isirei, R. J., & Rono, A. (2012). Towards achievement of sustainable development through technical and vocational education and training (TVET): A case of middle level colleges-Kenya. *Journal of Emerging Trends in Educational Research and Policy Studies*. 3(5) pp. 686-690
- Eze, T. A. Y. (2016). *Teachers' Perception of the impact of training and retraining on teachers' Productivity in Enugu State, Nigeria*. Department of Educational Management Enugu State University of Science and Technology, Enugu, Nigeria
- Ezeani, N. S. & Oladele, R. (2013). Implications of training and development programmes on accountants productivity in selected business organizations in Onitsha, Anambra State, Nigeria. *International Journal of Asian Social Science*.
- Kerre, B. W. (2001). *Science, technology and development*. (A paper presented to the Third World Studies (ATWS) Kenya Chapter Conference held at Egerton University, Nakuru, Kenya, 17–19 September 2001.)
- Michea, I. D., & Diane, R. (2008). *Training in Australia*. Pearson education. Australia.

- Yusoff, H. (2008), *Revisiting technical & vocational education in Malaysia: Creating education opportunity for every students*. A Discussion Paper of National TVET Conference, Kuala Lumpur.
- Ngala, F. B. J. A., & Odebero, S. O. (2010). Teachers' perception of staff development programmes as it relates to teachers' effectiveness: A study of rural primary schools in Kenya. *Educational Research and Review*.
- Makworo, E. O. & Mwangi, S. M. (2012). The social status perception of technical and vocational education and training in Africa: a critical review. *Education and General Studies*. V.1(1). Herald International Research Journals.
- Mehdinezhad, V. (2008). *Evaluation of teacher education programs by students and graduates*. Turku: University of Turku.
- Obwoye, E. (2016). The dilemma of the TVET teacher in developing countries in the 21st Century. *IRA-International Journal of Education & Multidisciplinary Studies* ISSN 2455–2526; Vol.03, Issue 03 (2016) Institute of Research Advances <http://research-advances.org/index.php/IJEMS>
- Odu, O. K. (2011). Philosophical and sociological overview of vocational and technical education in Nigeria. *American-Eurasian Journal of Scientific research*. 6(1). <https://eric.ed.gov/?id=EJ994216>
- Okorafor, P. N., & Okorafo, O. A. (n.d). Reflections on technical and vocational education and training in Nigeria in the 21 century. *st Journal of Assertiveness*. Pp.7-16. <http://www.google.com>
- Ofojebe, W. N., & Ezugoh, T. C. (2010). Teachers' motivation and its influence on quality assurance in the Nigerian Educational system. *Africa Research Review*, 4 (2), 36- <https://www.ajol.info/index.php/afrrrev/article/view/58352>
- Sang, A., Muthaa, G., & Mbugua, Z. (2012). *Challenges facing technical training in Kenya*. DOI - 10.4236/ce.2012.31018
- Tamrat, W. (2020). *TVET sector's challenge to recruit, retain competent trainers*. University World News. <https://www.universityworldnews.com/post.php?story=20201111080728727>
- UNESCO-ILO. (2003). Technical and vocational education and training for the twenty-first century: UNESCO and ILO Recommendations. <https://unesdoc.unesco.org/ark:/48223/pf0000220748>