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# Obstacles in Transmission and Acquisition of Employability Competencies under the Competency-Based Training in Tanzania

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**Abstract***:* This study sought to establish obstacles in transmission and acquisition of employability competencies under the competency-based training in Morogoro Region, Tanzania. The study used the qualitative exploratory research design to capture information from trainers and learners from selected VET institutions as well as employers and employees from civil construction companies where work-based training is conducted. The sample size included 22 trainers and 58 learners from three Vocational Training Centers. A semi-structured interview collected data from trainers and employers while a questionnaire collected data from learners and employees. Data was analyzed through descriptive statistics and the thematic approach. The study concludes that learners' academic background was a major obstacle to transmission of employability competencies as VET admitted learners with lower academic performance, thus it was difficulty for them to comprehend what was taught. Other critical obstacles included inadequate teaching and learning resources, language problem and shortage of trainers. Based on the conclusions, the study recommends that the government and VET stakeholders need to revisit learners' entry criteria to enhance learners' ability to comprehend what is taught. They also need to ensure that teaching and learning resources are available to enhance transmission and acquisition of employability competencies.

**Keywords:** Training; Competency-based training; Employability competencies; and Vocational Education and Training.

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## Introduction

Labor market competition has led to changes in competencies demanded and currently a graduate must possess a set of abilities known as employability competencies in order to find employment, keep it, perform well and advance in career (Mainga, *et al.,* 2022). These competencies include communication skills, technological aptitude, technical skills, teamwork, mathematical reasoning and time management (Geel, 2014; ILO, 2014). Thus, Glerum and Judge (2021), Scott *et al.* (2019) and Finn *et al*. (2014) claimed that graduates must acquire employability competencies through training and experience at universities and in the workplaces in collaboration with employers.

However, a studies by ILO (2019) indicates that to transfer and acquire employability competencies in the learning place depends on human resource development policy frameworks, appropriate institutional arrangements, support services, appropriate methodology, adequate and relevant learning material and qualified and committed trainers. Walters-Williams (2023) indicate that the teaching and learning tools should suit the working environment. Apart from that, effective transmission and acquisition of employability competencies need continuous changes in the teaching and learning contents, teaching and learning tools and methodology. Farecha, *et al.* (2020) indicates learners characteristics including

education background has a direct relationship with transmission and acquisition of employability competencies. Thus, if these factors are adhered at vocation education and training (VET) where this article focused, it is expected to ensure effective transmission and acquisition of employability competencies in the learning process.

Globally vocational education and training (VET) is a tool for preparing youth for employment because it emphasises and promotes the transmission and acquisition of employability competencies through competency-based training (CBT) which was opted as a strategy for improving the quality of human resources towards producing graduates with employability competencies (Ariyani, *et al.,* 2021; Smith, 2018; Dasmani, 2011; Colley, *et al.,* 2003). VET under the CBT approach plays a key role in building human capability in general as well as in developing employability competencies required in the labour market for improved performance (UNDP & URT, 2018). Studies have found that graduates under CBT approach were better in labour market than those from Knowledge Based Training (KBT) (Koobonye, 2020; Pavlova, 2019; Rutayuga, 2014). However, despite CBT being adopted in VET for almost 60 years worldwide (Deißinger, 2005) and 20 years in Tanzania, still it is claimed that the transmission and acquisition of employability competencies is challenging (Tambwe, 2017).

There is a debate on what hinders the transmission and acquisition of employability competencies under the CBT approach as different studies propose different reasons for the failure such as domination of theories in the training and learning process (Cornford, 2000), inadequate competencies among trainers (Smith, 2008) and limited assessment methods (Lockyer, *et al.,* 2017). ETF and ILO (2020) and UNESCO_UNEVOC (2013) proposed lack of time, rigid and outdated centralized training content, language problems, insufficient practical sessions and absence of career counseling facilities hinder learners to acquire employability competencies. In developing countries, it was argued that the acquisition was hindered by inadequate trained and motivated trainers, language problems, inadequate cooperation between firms and VETs and inadequate training resources (Koobonye, 2020; REPOA, 2020; Zinn, *et al.,* 2019; Njati, 2015; Aderonmu, *et al.,* 2014; Kufaine & Chitera, 2013). In the Tanzanian context, it was proposed that incompetent trainers, inadequate training and learning facilities, poor coordination, insufficient preparation of trainers and lack of clear guidelines among trainers were the reasons (Hakielimu, 2021; Munishi, 2016; URT, 2014). On the contrary, Haji (2015) reported that inadequate employability competencies have nothing to do with the learning process but with employment situations.

Despite, ample evidences on the obstacles facing the transmission and acquisition of employability competencies, several studies recommended the need to progressively investigate the problem due to changes in time, technology and work culture (Koobonye, 2020; Zinn, *et al.,* 2019; Njati, 2015; Aderonmu, *et al.,* 2014; Kufaine & Chitera, 2013). Due to limited results, this study sought to explore the obstacles facing the transmission and acquisition of employability competencies at VET in masonry and carpentry courses.

Studies by Subramanian (2017), Njati (2015) and Kaushik (2014) indicating selected factors limiting the acquisition of employability competencies were conducted outside the Tanzanian contexts. Though, Tambwe (2017) studied factors affecting the implementation of CBT in the Tanzania context, the author concentrated on students for accountancy, marketing and human resource management courses which are different from masonry and carpentry, which is the target for this study.

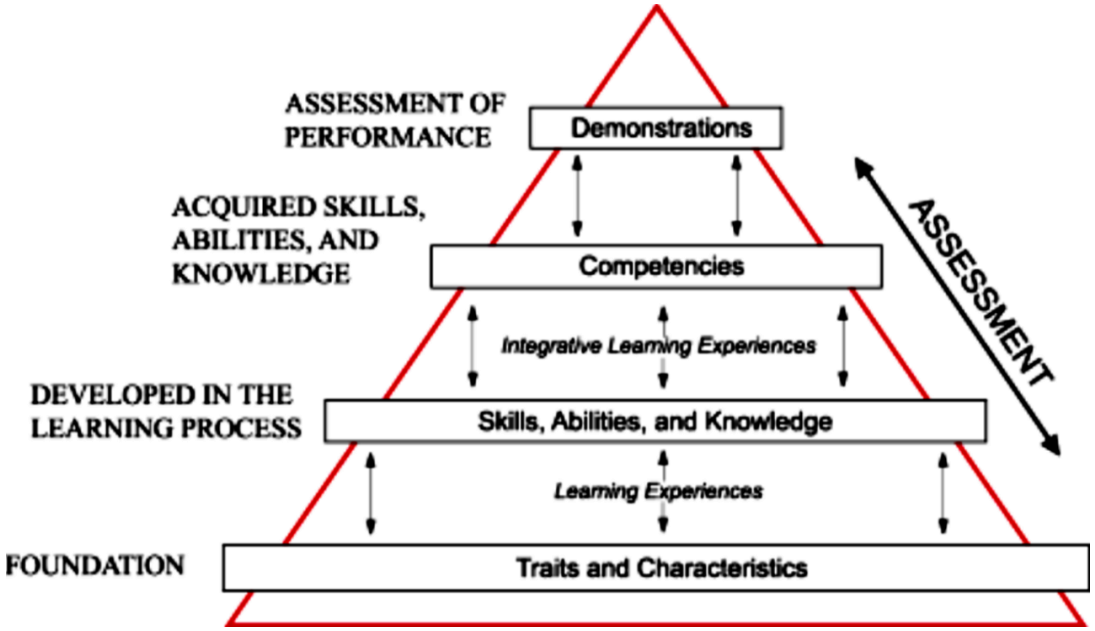
## Theoretical Framework

The study was grounded on a hierarchy of competency-based learning models developed by the U.S. Department of Education and the National Center for Education Statistics in 2002 and adopted by Voorhees and Voorhees (2014). The model informs trainers on important strategies of identifying hierarchies when implementing CBT for transmitting and acquiring employability competencies. It also insists on training methods which must be directed jobs, identifies traits and characteristics of trainees as important criteria in the learning process and skills, abilities and knowledge required for effective learning. Moreover, the model insists on industrial collaboration in the training process because skills, abilities and knowledge are developed through learning experiences. Figure 1 displays the process relationships and interaction of CBT requirements

toward the effective acquisition of employability competencies.

From Figure 1 transmission and acquisition of employment competencies is a back forward plan which starts with what one wants trainees to achieve, which is determined by policies, market demand, government priorities and standards as external factors. These are followed by identification of who is going to achieve it, who is going to facilitate and what will be applied in facilitating. In table 2, the inputs are applied as seeds to be sawn in the process based on the question of how the competencies will be transferred to meet labor demands.

**Figure 1: Hierarchy of Competence-Based Learning Model**




**Source:** Adopted from (NPEC, 2002 p.8)

The process leads to the trainees' acquisition of competencies as an outcome which may likely to be met or not depending on employers' expectations. If employers' expectations are not met, some interventions need to be undertaken.

## Methodology

### Design

The study used the qualitative exploratory research design to capture information from trainers and learners from selected VET institutions as well as employers and employees from civil construction companies where work-based training (field attachment) is conducted. A semi-structured interview was used to collect data from VET trainers and employers while a questionnaire was used to collect data from learners and employees.

### Population and Sampling

The study was conducted in Morogoro Region which was chosen due to its uniqueness in having several public VETs and one VET teachers college managed and governed by the government. All of these provide civil engineering courses. These included Kihonda Regional Vocational Training Center (RVTSC), Dakawa Vocational Training Center (VTC), Mikumi Vocational Training Center (VTC) and VETA Morogoro Teachers College. In addition, one private VET (St. Joseph VTC-Ifakara) was included in the study because it was the first VET to be introduced in the Region and it admitted students for masonry and carpentry courses. After visiting the study areas, learners for masonry and carpentry courses were purposely selected. The researcher entered the classrooms and requested learners to count numbers from 1 to 3 repeatedly then picked those who counted 1 at VET Kihonda and Mikumi. Census method was used at VET Dakawa because there were only 14 civil masonries. The sample size included 22 trainers and 58 learners from the three VTCs. One VTC (St. Joseph–Ifakara) did not admit

learners for some reasons. In addition, 20 employers and 48 employees participated, making the total of 148 respondents.

### Validity and Reliability

The researcher used content validity by reviewing previous studies and assessing the adequacy and accuracy of the instruments with the assistance of field experts. A pilot study was conducted with 6 trainers and 20 learners from Mbeya RSVTC, 9 VET graduate employees and 9 employers from 3 civil construction companies and two government agencies (TANROADS and TBA). Data triangulation increased the reliability of the results.

### Statistical Treatment of Data

Qualitative responses from the open-ended questionnaire were transformed into descriptive statistics. However, this did not make such statistics quantitative but rather expressed degrees of codes from responses. With the aid of MAXQDA 2020, content analysis was used to analyse open-ended responses from the questionnaire. Codes were created inductively. In MAXQDA 2020, coding was done and later analysis and interpretation of features including sub code statistics were used to show occurrences of codes from trainers and learners about the extent of the obstacle on transmission and on acquisition of employability competencies during the learning process. The analysis method was supported by Neuman (2014) who underscored that in qualitative analysis, the investigator may assess evidence in the form of words and images and use numbers to interpret result. The reported obstacles ranged from very low to high under the following interpretation: 0-25% = very low, 26-50= low, 51 to 75 = high and 76 to 100% = very high.

## Findings

### Demographic Characteristics of Respondents

Demographic characteristics give a general picture on obstacles facing the acquisition of employment competencies. The findings indicate that 52(89.66%) of the learners were between 21 and 30 years while 6 (10.34%) were between 11 and 20. This implies that VET learners were youths since according to the labor and employment Act of 2008, youthful age ranges from 15 to 35 years old. The age of respondents corresponds with the VETA policy to prepare youth for work (The Technical Education and Training Policy, 1996). The results further correspond with REPOA (2020) and Ntallima (2014) that VET students are relatively youthful with the mean age of 21 years.

Learners' gender was 50(86.2%) for males and 8(13.8%) for females. Therefore, the masonry and carpentry courses were dominated by males probably because they demand physical ability to perform tasks. The finding are similar with the study findings of OECD (2020). In response to the main problem in this study, gender stereotyping is a factor that hinder the acquisition of vocational skills for females as Nkebukwa (2018, p. 91) reports the prevailing gender stereotype:

> Courses taught and learned at the VET are categorized into hard skills, referring to those courses or occupations involving the use of machines and sweating and soft skills which can be accomplished with no or very little use of machines. Hard skills such as carpentry and mechanics are male occupations while soft skills such as cookery and tailoring are for female occupation (p.91).

For entry qualification, 3(5.17%) were Standard Seven leavers, 54(93.10%) were Form Four leavers and 1(1.72%) was a Form Six leaver. Therefore, the majority of VET learners were Form Four leavers. The results correspond with the VETA- Tracer Study (2019) which indicates that 68% of candidates joined VET after completing Form Four. Likewise, Ntallima (2014) found that 56% of VET learners were Secondary School leavers. However the findings are contrary with VETA-Tracer Study (2010) which revealed that VET candidates were standard seven leavers by 53.2% and Form Four leavers by 35.1%. The better enrolment of form four leavers now than before is likely to be influenced by the establishment of subsidized ward secondary schools which has increased the catchment area for enrolling standard seven leavers (URT, 2014).

It was found that 3 (6%) of employees belonged to the group of 11 to 20 years, 13 (27%) to the group of 21 to 30 years, 19(40%) to the age group of 31 to 40 years, 11(23%) to the age group of 41 to 50 years and 2(4%) to the group of 50+ years. This implies that VET graduate employees were youth as majority (27% and 40% respectively) were between 21 and 40 years old. The labor market VETA-Tracer Study (2010) showed that most active age groups of

VET graduates are those belonging to ages from 20 to 34. In addition, ILO (2017) indicated that approximately 86% of the young labor force (15–29) will be in emerging and developing countries by 2030. This implies that from the findings, VET learner's age is likely to have a direct relationship with global and national objectives to transmit employability competencies to youth for work.

Trainers' competencies was among the factors for enhancing transmission of employability competencies to learners as it was found that 2(9.09%) of VETA trainers occupied certificates, 8(36.36%) occupied diploma, 2(9.09%) occupied advanced diploma, 7(31.82%) occupied bachelor degrees, 3(13.64%) occupied master's degree. The working experience for 7 (31.82%) trainers was 0 to 4 years, for 5 (22.73%) was 5 to 10 years, for 5 (22.73%) was 11 to 15 years, for 2(19.09%) was 16 to 20 years, for 1 (4.55%) was 21-25 years, for 1 (4.55%) was 26 to 30 years and for 1(4.55%) was 31 to 40 years. On gender, 19(86.36%) of trainers were males while 3 (13.64%) females. These findings show that the trainers had a variety of experiences in the training field.

Employers' education levels were as follows: 5(25%) having certificates, 2(10%) having diploma, 11(55%) having bachelor's degree, 1(5%) having a postgraduate diploma and 1(5%) having a master's degree. In terms of gender, there were 18 (90%) males and 2(10%) females. Work experience of employers ranged from 0-4 years with 5(25%) respondents, 5 to 10 years with 6 (30%) respondents, 11 to 15 years with 6 (30%) respondents and 16 to 20 years with 4(20%). This implies that employers were elite, having good work experience to detect possible obstacles facing learners' acquisition of employability competencies through field attachment or internship.

**Research Question 1:** What obstacles do trainers face in transmitting employability competencies to learners?

The researcher asked trainers to report obstacles they faced when delivering training content under the CBT approach.

**Table 1: Trainers opinions on Obstacles Encountered**

| Obstacles | f (N=22) | (%) | Interpretation |
|---|---|---|---|
| Trainees background | 14 | 64 | High |
| Inadequate training and learning resources | 11 | 50 | Low |
| Shortage of trainers | 8 | 36 | Low |
| Language problem | 7 | 32 | Very low |
| Outdated curriculum | 5 | 23 | Very low |
| Parents and learners' negative perception of VET programs | 4 | 18 | Very low |
| Internet problems | 4 | 18 | Very low |
| Field supervision problems | 4 | 18 | Very low |
| Speed of changes in technology | 4 | 18 | Very lows |
| Trainers' and learners' attitudes toward supporting modules | 3 | 14 | Very low |
| Many modules learnt per semester | 3 | 14 | Very low |
| Shortage of time | 3 | 14 | Very low |
| Political interference | 2 | 9 | Very low |
| Examination setting challenge | 2 | 9 | Very low |
| The inadequate budget for upgrading trainers' competencies | 1 | 5 | Very low |
| Low enrollment | 1 | 5 | Very low |
| Bureaucratic procedures in getting learning resource | 1 | 5 | Very low |
| Copping with CBT approach to trainers who were KBET oriented | 1 | 5 | Very low |
| Lack of recognition from management | 1 | 5 | Very low |
| Higher grading system | 1 | 5 | Very low |
| Staying long in one station | 1 | 5 | Very low |
| Domination of theories in the training process | 1 | 5 | Very low |
| **Number of Speakers (N)** | **22** | **100** | |

Based on findings in table 1, the highly ranked obstacle was trainee's academic background, with the score of 64% which is high. Through interview, one of the trainers reported poor academic

background of those who joined the training programs as an obstacle:

> Previously, selection based on ability for one to read and write; however sometimes we selected even those learners who were not able to read and write in order to transmit vocational skills so that they can be able to do something using their hands. Due to this background, it is difficult for those with lower academic qualifications in terms of ability to read and write to acquire required skills including ability to communicate and mathematical reasoning (Trainer 14, on 15/11/2021).

Another trainer had this to report: "Some learners are forced to join technical and vocational studies due failure to continue with upper secondary (form five); these are not psychologically prepared to capture what is being trained in class and hence failure to acquire trained employability competencies" (Trainer 3 on 2/10/2021).

The next critical obstacles were inadequate training and learning resources with the score of 50% and shortage of trainers with the score of 36%. According to UNESCO-UNVOC (2013) and Zinn et al. (2019), for CBT to be implemented effectively for learners to acquire employability competencies, it requires adequate training and learning resources including machines, books and other teaching tools. One of interviewees, who was an alumni revealed that "…in our time, training and learning materials included woods, steel and glasses but here we have only wood materials; therefore learners fail to acquire required competencies on how to make furniture of other products" (Interview, 1 on 30/9/2021).

Shortage of trainers was another revealed obstacles as appears in table 1. Through interview, one of the trainers reported,

> ….In our institute we have a shortage of trainers. For instance, in the masonry trade I, am the only trainer who is responsible to teach core modules from levels 1 to 3 plus short courses or special programs. These make me overloaded and sometimes I fail to attend sessions and leave students without assignments that would help them in acquiring employability competencies. (Trainer, 14 on 18/10/2021).

Furthermore, *English language* was applied as medium of learning and assessment in transmitting employability competencies. Trainers claimed that transmitting employability competencies was dominated by English as a medium of instruction during the entire learning process since all equipment and instruction manuals were written in English language. It is therefore an obstacle for VET learners who have limited skills in English language. For instance one trainer indicted that, "The main challenge in transmitting employability competencies is the use of English language; most of our students are not able to communicating in the English language. This affects negatively the ability of our learners to acquire competencies" (Trainer, 03 on 4/11/2021).

The findings were similar to the study of REPOA (2020) which found that the shift from primary school where training was conducted in Kiswahili language to VET training was a big constraint to learners to capture the taught competencies. This made it difficult for trainees in acquiring employability competencies.

In addition, outdated curriculum was found to be an obstacle in transmitting and acquiring employability competencies as per labor market demands. In order for VET graduates to meet labor market demand, curriculum was supposed to be changing continuously. Interviews with a labor officer analyst and a curriculum development officer revealed delays in reviews of VETA curriculum which had expired in 2018. The reason cited was the failure of VETA to have effective quality assurance mechanism for follow-up on the implementation of the curriculum. Similarly, the audit report revealed that the curriculum reviews and development were not adequately informed by labour market surveys (VETA National Audit Office Report, 2020).

**Research Question 2:** What obstacles do learners face in acquiring employability competencies?

The researcher asked trainers to report obstacles they faced. Based on findings in Table 2, the highly ranked obstacle was inadequate teaching and learning resources, with the score of 84% which is very high, meaning that learners perceived

inadequate teaching and learning resources as a major obstacle in enhancing transmission and acquisition of employability competencies in the teaching and learning processes.

**Table 2: Learners' opinions to obstacles they faced in acquiring Employability competencies**

| Obstacles | Frequency | (%) | Interpretation |
|---|---|---|---|
| Inadequate training and learning resources | 50 | 86 | Very high |
| shortage of trainers | 15 | 26 | Low |
| Language problem (English) | 8 | 14 | Very low |
| Field practical obstacles | 6 | 10 | Very low |
| Power instability | 5 | 9 | Very low |
| Application of old machines | 5 | 9 | Very low |
| Unsatisfactory relationship between trainers and trainees | 3 | 5 | Very low |
| outdated curriculum (training content) | 3 | 5 | Very low |
| internet problem network cut off) | 2 | 3 | Very low |
| Lack of cooperation with other institutes and experts | 2 | 3 | Very low |
| Higher grading system | 2 | 3 | Very low |
| shortage of food | 2 | 3 | Very low |
| Domination of theories than practical | 2 | 3 | Very low |
| Trainers carelessness | 2 | 3 | Very low |
| learning without understanding the need for the labor market | 2 | 2 | Very low |
| Distance from home to institute. | 2 | 3 | Very low |
| Women harassment | 1 | 2 | Very low |
| A negative perception of employers of VET graduates | 1 | 2 | Very low |
| shortage of clean water | 1 | 2 | Very low |
| The negative perception of VET | 1 | 2 | Very low |
| **Number of Respondents (N)** | **58** | **100** | |

Other obstacles which were ranked by learners included shortage of trainers, English language problem, field attachment, power instability and application of old machines. For instance the case of searching areas for field practical was revealed by one learner as,

> In most cases, when we students are request for field attachment to acquire work-based skills as part of employability competencies, employers do not trust us despite given forms from our institutes, thus sometimes we fail to get areas for field practical and attach ourselves to "local fundis" who may have minor works to be carried out for a short period of time and the rest time we stay at home waiting for the field practical session completion (Learner, 48 on 18/10/2021).

The findings from learners were supported by employers and employees as they indicated that,

> It is challenging for learners to look for field areas on their own. For example, I spent six months at home without finding an internship because businesses were skeptical about women operating heavy machinery. Therefore, in order to lessen this issue, VET institutions should assist learners with finding places for fieldwork to gain experience (Employee, 35 on 12/11/2021-Kilosa JV).

One of supervisors reported that "Sometimes when learners arrive at our work areas, their instructors or even students themselves fail to communicate what they are supposed to do. As a work supervisor, I fall behind on what should be given to the learner" (Employer, 20 on 17/11/2021- RCC).

The findings are similar to those by Njati (2015) and Kaushik (2014), who indicated that lack of clear guidelines on-field practice influenced learners' failure in acquiring areas for field practicals. The challenge affected learners negatively in acquiring work experience competencies which are among the employability competencies demanded for employment.

Moreover, it was noted that because of unsatisfactory defined guidelines during field attachment, sometimes field supervisors used learners as a mere mailman or photocopy clerks (Adjrah & Quashie, 2014). Similarly, AlMunifi and Aleryani (2019) indicate that in civil engineering

courses, the practical component of the program was missing, where about half of the interviewees did not get exposure to field experiments due to unsatisfactory supervision; this challenged the transmission and acquisition of employability competences. This implies that apart from field attachment being important for enhancing learners' acquisition of competencies, there were shortcomings. This implies is that failure in attaing field attachment places is an obstacle to transition and acquisition of competencies for employability.

## Conclusions and Recommendations

The study concludes that learners' academic background was a major obstacle to transmission of employability competencies as VET admitted learners with lower academic performance, thus it was difficulty for them to comprehend what was taught. Other critical obstacles included inadequate teaching and learning resources, language problem and shortage of trainers. Based on the conclusions, the study recommends that the government and VET stakeholders need to revisit learners' entry criteria to enhance learners' ability to comprehend what is taught. They also need to ensure that teaching and learning resources are available to enhance transmission and acquisition of employability competencies.

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