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## Effects of Trainee Field Attachment Skills Acquisition and Teamwork on Workplace Performance in Kenya

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## ABSTRACT

*The Technical and Vocational Education and Training (TVET) Programmes in Kenya include compulsory industrial/field attachment at all levels. The industrial attachment allows trainees to relate theory to practice and to prepare them for the ever-increasing and dynamic workforce requirements and further training. However, the trainees come out of the attachment period with little work skills which can lead to poor work performance in the labor market. The proposed study will assess the impact of TVET learners' field attachment skills acquisition on work performance in Kenya. The study objectives were to; determine the contribution of TVET learners' field attachment skills acquisition on workplace performance in Kenya, and, explore the influence of trainee teamwork in field attachment on workplace performance in Kenya. The study employed a descriptive research design. The unit of analysis for this study consisted of all the 9 TVET institutions in Uasin Gishu and Nandi Counties that have placed their trainees on field attachment. The target population was 442 with a sample of 206 field attachment supervisors. The study used questionnaires and interviews to collect data. Collected data was sorted, edited, coded, analyzed and presented in the form of frequency tables. Findings from the study revealed that; 53.4% and 46.6% of the respondents were male and female, respectively. Building and civil engineering department had 23.8% of the respondents, business and liberal studies department had 24.3% of the respondents and finally, electrical and electronics engineering department led with 27% of the respondents followed by mechanical engineering at 25%. The study also showed that majority of the trainees attended a period of 1-2 months (58.7%) and those who attended 2-3 months were 41.3%. Approximately 65% of the respondents noted that the trainee's field attachment skills acquisition and teamwork had significant positive impact on trainee's performance in the workplace.*

**Keywords:** Learner's field attachment, Work performance, TVET institutions, Competency-based training, Training strategies, Physical facilities, and Stakeholder perception.

## 1.1 Background

Field attachment of a learner is arguably the key method for linking the theoretical and actual working worlds. Both learners and industries benefit from industrial training. Industrial training truly benefits enterprises, as modest sources of able help, exceptionally energetic present representatives, and the opportunity to develop imminent workers. Frequently occupations are promptly accessible, yet the graduates lack what is expected to secure and keep positions (Warinda, 2013). Industrial training can give trainees advantages, for example, enhancements in profession-related skills, increased reasonable experience, improved attractiveness of graduates (Muhamad *et al.*, 2012). Besides, it gives them work desires, relational abilities, administration, and comprehension of the business applications of classroom learning.

TVET is becoming increasingly crucial in times of fast economic, social, and technical development around the world. Workers require more updated skills to participate in the knowledge economy, as the abilities they learn become increasingly obsolete (Neal, 2011). Education and growth are inclusive in both developed and fast emerging countries such as China, Singapore, and South Korea. Their rapid growth in labor-intensive, export-oriented industries has resulted in an increase in demand for TVET, which is critical to skill development (Neal, 2011). According to Afeti (2006), TVET is significant because of its orientation towards the world of work and the curriculum's emphasis on the acquisition of employable skills. TVET delivery systems are thus well positioned to train the competent and entrepreneurial workforce that Africa requires to generate wealth and lift itself out of poverty. Nonetheless, the labour market's demand for skilled graduates is not always met by acquired abilities. TVET is a well-known educational system that addresses economic and development concerns. Many nations globally, including Germany, Taiwan, China, India, Bangladesh, Australia, Ghana, South Africa and Botswana have chosen TVET as a common development model (Alam, 2008). TVET has been employed in Australia and Germany to provide adolescents with knowledge and skills to solve the unemployment problem (Iacovou and Arnstein, 2007). Taiwan, India and China have embraced TVET to assist the establishment of a skilled workforce (Subrahmanyam, 2020), resulting in increased productivity and economic growth. According to Rodzalan and Saat (2012), African organizations place a strong emphasis on communication, familiarity with the host organization's structure, function, and purpose, adaptation, and meeting requirements that go above and beyond what is required. Employers frequently believe that graduates starting careers in business should already have some company job experience. Since industrial training can assist trainees in bridging the gap between theoretical learning and real-world experience, they also want graduates to be more employable (Rodzalan & Saat, 2012). UNESCO (2010a) claims that African countries including Malawi, Ghana, Zambia, Kenya, and Tanzania have placed a major emphasis on TVET entrepreneurship to highlight the significance of self-employment training.

Post-primary, secondary, and postsecondary education and training are all included in TVET in Kenya. The Kenyan government regards TVET investment as a means to combat poverty and unemployment. The government is committed to reforming the industry in order to ensure that the programmes offered are relevant and that there is an adequate supply of critical skills and competencies for local and international labour markets, according to Kenya Vision 2030 and Session Paper No. 1 of 2005 on Education and Training Policy Framework (Mwangi, 2015). Technical education and training (TVET) in Kenya has seen institutional and curricular changes that have had an impact on graduates since the country's independence in 1963. TVET is required for the job. Most people expect to find work as a result of their education, and they find fulfilment in their career. According to Mwangi (2015), one of the major issues concerning the workplace, for which TVET must play an important role in providing solutions, is the question of what changes should be made to training curricula at all levels in order for young people to become

more work-oriented and acquire the basic skills required to perform productive work. One of the cornerstones of Vision 2030 is the integration of Science, Technology, and Innovation (STI) in national productive processes, which is crucial to the success of government programmes and programmes. This drive's primary purpose is to develop in Kenya a culture of creativity, innovation, and lifelong learning (Kenya Vision 2030). The importance of technical training institutes in enabling the realization of this aim cannot be overstated. At 39%, Kenya has the highest unemployment rate in East Africa. To address this issue, the government intends to create 1.3 million employment by 2022 under the Big 4 Agenda's manufacturing pillar.

As more businesses transition to automation and artificial intelligence, technological advances in industry are increasing the demand for new talents. To remain competitive in global marketplaces, manufacturers are more than ever keeping up with and implementing technological breakthroughs that improve efficiency. A McKinsey survey of young people and employers in the European Union found that 60% of respondents felt that new graduates were not adequately prepared for work, citing gaps in technical skills such as Science, Technical, Engineering, and Mathematics (STEM) courses, as well as a lack of adequate soft skills such as communication, attitude, and work ethics, all of which Kenyan manufacturers have raised. The lack of skills required to drive these discoveries results in high labour costs, low technological acceptance, minimal knowledge transfer, and high unemployment levels, particularly in technology-intensive sectors, affecting economic agenda achievement.

Kenya must develop the talent required to achieve the Big Four Agenda and other Sustainable Development Goals (SDGs) through Technical and Vocational Education and Training. County governments must collaborate with national governments to allocate adequate resources for modernizing infrastructure in TVET institutions, as well as training TVET instructors to ensure they are capable of teaching, assessing, and supervising students on Industrial Attachment Placement.

Industrial attachment is a type of learning in which students can acquire and apply knowledge, skills, and feelings in a real-world setting by engaging the body and mind through activity, reflection, and application, which adds depth and meaning to a learning/training system. The phrase 'industry attachment' refers to arrangements that allow practitioners to refill and enhance their skills in Asian and African TVET programmes. The industrial attachment is known by various different names. This sort of learning is referred to as on-the-job learning for instructors and trainers (e.g., Finland), return or back-to-industry programmes (e.g., Australia), and industrial placements or secondments (e.g., the United Kingdom) (Maclean and Wilson, 2009).

## **1.2 Statement of the Problem**

The TVET system, which is anticipated to play a crucial role in this quest by supplying necessary skills to drive industrialization processes, is in disarray. Few studies have been conducted to

investigate the relationship between required skills and acquired skills through TVET, particularly in emerging nations. The industrial attachment component of TVET programs in Kenya was designed to connect trainees with industries or businesses in order for them to gain practical skills and appropriate work ethics, as well as to familiarize themselves with how new technologies, machines, and equipment learned in their institutions work. However, in Kenya, little emphasis is paid to the supervision and evaluation of industry attachment in TVET. The assessment authorities, such as KNEC and TVET CDACC, do not appear to grade or certify industry attachment. As a result, several years after the program's incorporation into TVET curricula, no empirical study had been done to evaluate the attachment program in TVET institutions. An assessment of the learner's attachment is judged timely and appropriate to review concerns about the achievement of objectives, the benefits to stakeholders, any issues and challenges, and the skills acquired by trainees participating in the program. As a result, the purpose of this study was to determine the impact of TVET trainee field attachment skills development and trainee teamwork on workplace performance in Kenya.

### **1.3 Objectives of the Study**

To assess the effects of Trainee Field Attachment Skills Acquisition and Teamwork on Workplace Performance in Kenya

### **1.4 Specific Objectives**

- i. To determine the contribution of trainee field attachment skills acquisition on workplace performance in Kenya
- ii. To explore the influence of trainee teamwork in field attachment skills acquisition on workplace performance in Kenya

### **1.5 Scope of the Study**

The study was limited to determine the Effects of Trainee Field Attachment Skills Acquisition and Teamwork on Workplace Performance in Kenya in the sampled population.

## **2.0 Methodology**

The study employed a descriptive research design. A questionnaire was used to collect data from the sampled respondents (206). Stratified random sampling was employed to obtain a sample of respondents. Quantitative data collected was sorted, coded, cleaned, analyzed, and presented in the form of frequency tables. Quantitative data was analyzed using SPSS.

### **2.1 Results and Discussion**

The results and discussion of the specific objectives were presented in the subsequent sections as shown.

## 2.2 Impacts of TVET trainees’ field attachment skill acquisition on workplace performance

Table 1 presents the contribution of the trainee’s field attachment skills acquisition views by the respondents.

**Table 1: Contribution of trainee field attachment skills acquisition on workplace performance**

Statement	1	2	3	4	5	N
Increases practical knowledge of trainee’s	0(0.0%)	0(0.0%)	72(35.0%)	70(34.0%)	64(31.1%)	100
Enhances work exposure and on-job training	0(0.0%)	0(0.0%)	85(41.3%)	67(32.5%)	54(26.2%)	100
Building of social network in the subject discipline	0(0.0%)	0(0.0%)	77(37.4%)	67(32.5%)	62(30.1%)	100
Transferring theorized skills to hands-on skills	0(0.0%)	0(0.0%)	87(42.2%)	62(30.1%)	57(27.7%)	100
No substantial difference in help	0(0.0%)	0(0.0%)	68(33.0%)	63(30.6%)	75(36.4%)	100

1-Very low extent, 2-low extent, 3-moderate extent, 4-great extent, and 5-very great extent

The findings show that the benefits the trainees get from the field attachment specifically on the practical knowledge attained; 35.0% of the respondent gained the moderate extent, 34% of the respondent gained great extend while the remaining 31% gained very great extent. The study reveals that those with moderate extent that field attachment Enhances work exposure and on-job training were 85(41.3%),great extent were 67(32.5%), and very great extent were 54(26.2%).Furthermore, the study found that those with moderate extent that it builds the social network in the subject discipline were 77(37.4%), great extent were 67(32.5%), and very great extent were 62(30.1%).The results show that those with moderate extent on the Transferring theorized skills to hands-on skills were 87(42.2%), great extent were 62(30.1%), and very great extent were 57(27.7%).Lastly, the results illustrated that those with moderate extend that filed attachment had no substantial difference were 68(33.0%), great extent were 63(30.6%), and very great extent were 75(36.4%).

Furthermore, the study sought to determine the extent on how the respondents agree with the following trainee’s field attachment experiences on work performance, as shown in Table 2 below.

**Table 2: Extend of agreement on trainee’s field attachment experience on workplace performance**

Statement	1	2	3	4	5	N
The field knowledge is helpful	0(0.0%)	0(0.0%)	75(36.4%)	86(41.7%)	45(21.8%)	100
They have interacted with senior subject specialists in the field	0(0.0%)	0(0.0%)	69(33.5%)	93(45.1%)	44(21.4%)	100
There is no significant difference between class and field	53(25.7%)	126(61.2%)	18(8.7%)	9(4.4%)	0(0.0%)	100
They have learned extra practical skills from the field supervisors and mentors	0(0.0%)	0(0.0%)	44(21.4%)	96(46.6%)	66(32.0%)	100
They have been able to showcase their talent(s) in the field through work assignments	0(0.0%)	138(67.0%)	19(9.2%)	49(23.8%)	0(0.0%)	100

1-strongly disagree, 2-disagree, 3-neutral, 4-agree, 5-strongly agree

Table 2 shows the results of the claim the field knowledge being helpful to trainees. We had 75(36.4%) of the respondents being neutral to the claim, we had 86(41.7%) of the respondents who were the majority agreeing with that the field knowledge was helpful and finally, we had 45(21.8%) of the respondents strongly agreed with the claim. The study further revealed that 69(33.5%) of the trainees had neutral interaction with senior subjects’ specialist, we had 93(45.1%) of the trainees who agree to have interacted with the senior subject specialist and we had a total of 44(21.4%) of the respondents who strongly agree to have interacted with senior subject specialist in the field.

From the results, we had 53(25.7%) of the respondents strongly disagree with the statement there is no significance difference between class and field, we had 126(61.2%) disagreeing with the statement, 18(8.7%) of them were neutral with the claim and finally, 9(4.4%) were agreeing that the difference was insignificant between class and field as shown in Table 4.3.4.

Furthermore, the study showed that 44(21.4%) of the respondents were neutral about learning extra practical skills from the field supervisors and mentors, 96(46.6%) of the respondents agree and 66(32.0%) of the respondent strongly agree that they have gained extra skills from field supervisors and the mentors.

Lastly, the results indicate that 138(67%) of the respondents disagree that trainees they have been able to showcase their talents in the field through work assignments, 19(9.2%) of the respondents

were neutral about the claim and 49(23.8%) of the respondents agree to have showcase their talents in the field through work assignment.

### 2.3 Trainee Teamwork and Work Performance

The second objective is to explore the influence of trainee teamwork in field attachment skills acquisition on workplace performance in Kenya. The respondents were requested to give their views on whether field attachment trainees work on their own and if the company offer mentorship during the attachment period, and the trainee teamwork field attachment skills acquisition on workplace performance, and their responses were analyzed and presented in the subsequent Table 3, as shown below.

**Table 3: Responses on whether field attachment trainees work on their own and if the company offer mentorship during the attachment period**

Statement	Yes	No	N
Does field attachment trainees work on their own?	22(10.7%)	184(89.3%)	100
Does the organization/company offer mentorship during the attachment period?	145(70.4%)	61(29.6%)	100

The results above show that trainees working on their own implies that 22(10.7%) of the respondents work on their own in the field but the majority 184(89.3%) they get support from field supervisors and mentors. Also, the study shows that 61(29.6%) of the respondents did not have mentorship program while 145(70.4%) of the respondents had mentorship program during the attachment period as shown in Table 3.

Also, the study collected the data on how the organization promotes teamwork abilities and determine to what extent can the teamwork influence on workplace performance, and the responses were recorded and presented in the frequency Table 4, as shown below.

**Table 4: Organization Promotes Teamwork Abilities**

Statement	1	2	3	4	5	N
The organization allocates a mentor workmate	0(0.0%)	114(55.3%)	33(16.0%)	59(28.6%)	0(0.0%)	100
Issues group work assignments that enable collaborations	0(0.0%)	0(0.0%)	29(14.1%)	140(68.0%)	37(18.0%)	100

Provides resting room for work-related discussions & deliberations.	141(68.4%)	29(14.1%)	14(6.8%)	17(8.3%)	5(2.4%)	100
Encourages supervisor-supervisee feedback sessions	2(1.0%)	2(1.0%)	39(18.9%)	161(78.2%)	2(1.0%)	100
Encourages cross-departmental rotations	0(0.0%)	98(47.6%)	0(0.0%)	108(52.4%)	0(0.0%)	100
Rate of extent in teamwork's influence on work performance (Qn.16)	0(0.0%)	0(0.0%)	51(24.8%)	93(45.1%)	62(30.1%)	100

1-Very low extent, 2-low extent, 3-moderate extent, 4-great extent, 5-very great extent

The results in Table 4 above presents the responses on whether the organizations promote the teamwork abilities. The results of whether the organization allocates the mentors to the trainees and 114(55.3%) of the trainees they rarely got attached to mentors, 33(16%) of the respondents were moderately attached to mentors and 59(28.6%) of the trainees were greatly attached with the mentors in their organization.

The study revealed that 29(14.1%) of the trainees were moderately issued with group work assignment that enables collaboration, 140(68%) of the respondents were greatly issued with the group work that enhances collaboration and 37(18%) of the respondents had very great extent of the issue of the assignments that enables collaboration.

The results revealed that 141(68.4%) of the respondents in their organization had very low extent of having rooms for work related discussion with 29(14.1%) of them having low extent.17(8.3%) of the respondents had great extent of having rooms for discussion and 5(2.4%) of them having very great extent of securing rooms for work related discussions and deliberation.

From the results, it showed that very great and low extent of encouraging supervisor-supervisee feedback session had only 2(1.0%) of the respondents, we had 2(1% of the respondents with low extent, 39(18.9%) of the respondents with moderate extent and we had 161(78.2%) of the respondents with great extent of having supervisor-supervisee feedback session in their organization of attachment.

Furthermore, we had 47.6% of the respondents who had cross-departmental rotations in the organization by low extent and we had 52.4% of the respondents in their organization who had cross departmental rotation by great extent.

Lastly, the results of the extent to which teamwork has influenced the performance. 51(24.8%) of the teamwork influenced performance by moderate extent, 93(45.1%) of the teamwork influenced

performance by great extent and 62(30.1%) of the teamwork influenced performance by very great extent.

Furthermore, the study sought to on whether the field attachment experience enhances teamwork skills. The respondent’s responses were analyzed and recorder as shown in the Table 5 below.

**Table 5: Responses on whether the field attachment experience enhances teamwork skills**

Statement	1	2	3	4	5	N
Created social network with superior people in the organization	0(0.0%)	0(0.0%)	41(19.9%)	98(47.6%)	67(32.5%)	100
Learned importance of inquiry, assistance, and feedback provision.	0(0.0%)	0(0.0%)	53(25.7%)	89(43.2%)	64(31.1%)	100
Enhanced work efficiency through collaborative approaches	0(0.0%)	0(0.0%)	43(20.9%)	98(47.6%)	65(31.6%)	100
Operationalized teamwork skills through practical handling of tasks and providing public feedback presentations to peer attachés.	0(0.0%)	0(0.0%)	50(24.3%)	78(37.9%)	78(37.9%)	100

1-strongly disagree, 2-disagree, 3-neutral, 4-agree, 5-strongly agree

The results in Table 5 presents the responses on whether the field attachment experience enhances teamwork skills; it shows that 41(19.9%) of the respondents were neutral about creating social network with superior people in the organization, 98(47.6%) of the respondents agree to have created social network with superior people in the organization and 67(32.5%) of the respondents strongly agreed to have created a social network with superior people in the organization.

The study found that 53(25.7%) of the respondents were neutral about having learned the importance of inquiry, assistance and feedback provision in the organization. 89(43.2%) of the respondents agree to have learned and 64(31.1%) of the respondents strongly agree to have gained importance of inquiry, assistance and feedback provision in the organization.

Furthermore, the results revealed that 43(20.9%) of the respondents were neutral about having work efficiency through collaboration approach. 98(47.6%) agree to have enhanced work efficiency through collaboration approach and 65(31.6%) of the respondents strongly agree to have enhanced work efficiency through the collaboration approach.

Lastly, 50(24.3%) of the respondents were neutral about providing public feedback presentations, 78(37.9%) of them agree to have provide public feedback presentations and strongly agree to have operationalized teamwork skills through the practical handling of tasks and providing public feedback presentations to peers.

### **3.0 CONCLUSION**

The main aim of this study was to assess the impacts of TVET trainees' field attachment skill acquisition on workplace performance in Kenya; a case of Uasin Gishu and Nandi counties. The study interrogated several trainee field attachment acquisition skill aspects and established ow they influence their organizational workplace performance. The study observes that field attachment increases workplace performance as the trainees are exposed to practical knowledge through work exposure, on-job training as well as building social networks in their specialization. Therefore, it can be argued that timely field attachment work capacity building equips trainees with work pre-experiences which can increase their work output later in their career days. Also, trainees' attached organizations can enhance trainees' workplace performance through interactions, and feedback provisions.

In terms of trainee teamwork skills, the findings reveal that allocating field attachment mentors and encouraging group work assignments enable trainees with collaborative skills necessary for becoming a team player. Cross-departmental rotations help trainees with teamwork skills and influence their workplace performance.

### **4.0 Recommendations**

- i. Organizations should partner with TVET in ensuring cooperative training and field attachment exercise by trainees and allocated mentors from TVET college and attached organization. This was help in bridging the training and employability gap, thereby guaranteeing workplace performance.
- ii. Training institutions such as TVET should enhance capacity of attracting more trainees through favorable field attachment and program marketing. This was help organizations attract better prospective workforce wit practical skills.

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