

## **Impact of Principals' Instructional Leadership Practices on Trainees' Skill Acquisition in Engineering Courses in TVET Institutes- Lake Victoria Region, Kenya.**

**Dorcas A. Ojera**

*Rongo University, School of education*

**Enose M.W Simatwa**

*Tom Mboya University College, School of Education*

**Maurice A. Ndolo**

*Tom Mboya University College, School of Education*

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### **Abstract**

*Engineering courses prepare students with skills that promote self-employment. Despite the importance of engineering, student performance in Kenya National Examinations Council (KNEC) examinations has been below expectations. The objective of this publication was establishing impact of Principals' instructional leadership practices on trainees skill acquisition in engineering courses in TVET institutes in Lake Victoria Region, Kenya. This publication was anchored on the Skill Acquisition Theory of 2007 by Dekeyser. Concurrent Triangulation Research design was used to guide the publication. The population used was 5 principals, 56 trainers, 20 heads of department, and 828 trainees taking engineering courses in selected TVET Institutes. The sample size constituted 5 principals, 8 heads of departments, 16 trainers, and 251 trainees. However only 218 (88.21 percent) trainees out of 251 returned questionnaires. Instruments for data collection were questionnaires and interview schedules. Reliability of the instruments was established using test re-test method whereby an acceptable coefficient of 0.70 was achieved. Quantitative data collected using questionnaires was analyzed using means, frequencies, and percentages. Regression analysis was used to ascertain the impact of Principals' leadership factors. Qualitative data were analyzed by themes and sub-themes as they emerge from the interviews and document analysis. The publication's findings showed that in TVET institutions there is a statistically significant impact of principal's instructional leadership skills on skill acquisition of trainees in engineering courses. In summary, the publication variables had a positive impact on trainee skill acquisition. This conclusion supports the view that Technical Vocational Education and Training (TVET) is a vehicle through which a country can build a competitive workforce for key industries and socio-economic growth and hence promote self-employment which is critical for eradication of poverty in fulfillment of Sustainable Development Goals.*

**Keywords:** *Dropout, policy, Academic Achievement, Education and secondary Schools.*

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### **I. Introduction**

The role of the principal is to provide strategic direction in the school system. The principal directs the implementation of recommended curriculum, assesses teaching methods, monitors student achievement, encourages parental involvement, administers the budget, hires and evaluates staff, and oversees the upkeep of facilities. The principal's primary role is to promote the learning and success of all students and to create a vision of improved quality of education and the education system itself. The principal has to ensure academic success through the provision of material for training purposes and by collaborating with different individuals like educators, parents, students, and education policy makers. If the above roles are played within the confines of their workability, the output is always acceptable. In the lake region where skill acquisition as measured in outcomes in examination are low.

This study had a population sample of 5 Principals, 20 heads of department, 56 trainers, and 828 trainees. The present study will also have a variety of participants unlike the foregoing with only 4 teachers and the principals as respondents. This study also differs from O'Donnell and White (2005) who studied principals' instructional leadership in public middle schools, while this will be conducted in TVET institutions in the Lake Victoria Region of Kenya. The present study sought to examine the principal's instructional leadership practices

and how it correlates to trainees' skill acquisition in engineering courses. The study also sought to examine how other learning support factors such as trainer aptitude, physical facilities, and utilization of instructional materials in tandem with principal's leadership practices impact trainees' training on skill acquisition.

## **II. Literature Review**

Principal leadership practice is defined by Irvin and Flood (2004) as the ability to promote the success of all students by facilitating the development, articulation, implementation, and stewardship of a vision of learning. The Principal strives to make the school a center for learning by having high expectations of the students and the instructors. For colleges to be effective as tools of meeting social and economic needs as development institutions there is a need for the leaders of the institutions to get equipped with leadership skills and attitudes that can help them lead the colleges (Robertson, 2015). This view was also supported by Muijjs(2006) who asserted that the development of leadership is a key to having an effective educational organization. Boateng (2012) recommended changes in institutional administrators as they were responsible for the generation of ideas, formulation, and implementation of policies that ultimately affected the quality of learning and its relevance.

In a study on suggestions of teachers' self-perception as adult apprentices and professionals, their practices and professional advancement at Rift Valley University College situated in the country of Ethiopia, Abebe (2012) found that TVET educator's insights damagingly influenced their motivation to educate and their defiance towards their profession. In addition, the TVET college educators showed low motivation and morale for engaging in learning and professional progress and cited such extrinsic aspects as the level of wage and benefits as causative to their lack of enthusiasm in the work settings. The study resolved that TVET college educators' low motivation to educate affected negatively their overall trainee's skill acquisition during their work duty in the TVET colleges. However, these findings mirror the work experiences of TVET lecturers in a geographically different environment from community-based institutions in Nairobi region. Furthermore, the research evaluated the impact of inspiration on the overall performance of the tutors without particularly examining the educators' task of course implementation. Thus, the current study scrutinized the impact of the levels of motivation of Artisan and Craft teachers on the implementation of Artisan and Craft courses in TVET colleges.

In the Kenyan TVET college setting, Kelemba (2010), using a case research design, looked into how model formative years polytechnics or TVET institutions in Kenya were using Education for Sustainable Development (ESD). Data was gathered from a sample of two out of five model youth polytechnics. The study recognized lack of motivation among coaches and low rating of youth polytechnics in the societies as some of the blockades to execution of ESD. However, embracing the case study design denied the generalization of the findings that Teacher qualifications form a core part of student employability immediately after they graduate. In addition, Kelemba's (2010) study focused on the use of ESD in youth TVET colleges. Lack of educator motivation and low levels rating of TVET colleges imparted on the application of Artisan and Craft curriculum in community colleges. Teacher motivation together with their qualification is essential in aiding the churning out of employable graduates.

Various studies conducted internationally have shown that there is a significant impact of institutional leadership and trainees' skill acquisition. Drodge (2002) noted that leadership practices within community colleges in the USA affected the ethos within those institutions and subsequently the performance. This is also backed up by Cloud (2010) whose study found out that effective leadership within an educational institution improved trainees' skill acquisition. The study went further in asserting that leaders needed to adopt collaborative and integrated leadership practices to achieve effective transformation within TVET Colleges.

Over the last few years studies have looked into the role of leadership in educational institutions and two models have been observed, that is, instructional and transformational leadership styles (Hallinger, 2003). Kouzes and Posner's transformational leadership is deemed to be more suitable as conditions within TVETS are constantly changing. Kouzes and Posner's transformational leadership is based on "The Five Practices" of challenging the process, inspiring a shared vision, enabling action from others, modeling the way, and encouraging the heart (Kouzes and Posner, 2002). Snee and Hoerl (2004) noted that inspiring a shared vision is a key aspect of leadership since leaders are supposed to develop and communicate organizational strategy. They defined inspiring a vision as an act that involves passion to look into the future to make a difference and persuade others to own the same vision. Pearce and Robinson (2005) noted that leadership had an effect on trainees' skill acquisition and lack of it was a major barrier to ineffective implementation of the strategy. This finding was backed up by Jooste and Fourie (2006) whose study indicated that the lack of strategic leadership was a major barrier to the implementation of the strategy. The study recommended embracing transformational leadership to bring positive change that could lead to improved trainees skill acquisition s noting the need for a clear chain of command.

In the United Arab Emirate, Ibrahim and Al-Taneiji (2013) found there is a positive correlation between the Principals leadership practice and his effectiveness, while they found no correlation between principal leadership and trainees skill acquisition. In Indianapolis, Kelly and Daugherty (2005) said that effective school leadership has a significant impact on student achievement. The study was conducted in primary schools. In Kenya, Lydia and Nasongo (2009) found that principals' leadership styles had an impact on trainees' skill acquisition. They observed that when other factors were held constant, head teachers, provided adequate teaching and learning materials that enhanced student achievement.

The foregoing studies have indicated that the principal has a significant role to play in pupils' performance in public primary schools. The impact of principals' leadership practices on trainee skill acquisition in TVET institutions have yet to be investigated. The present study sought to establish the extent to which principals' leadership practices impacts on engineering trainees' skill acquisition. This was necessitated by the poor performance of trainees in TVET institutes. The study wanted to find out the impact of principal leadership practices on trainees' skill acquisition in TVET institutes. is in charge of the allocation of institutional resources, Motivation of trainers and trainees, supervision of curriculum implementation, and evaluation of output in TVET institutes in the Lake Victoria Region of Kenya.

### III. Methodology

#### Research method

The study utilized a concurrent triangulation research design (Mixed methods). The triangulation research design was selected since it offers the chance to inject both quantitative and qualitative data as a means to recreate a research outcome to find a solution to the relevant issues in a study. Also, Concurrent triangulation research design offered an exceptional means of data collection for this study on Impact of Principals' Instructional Leadership Practices on Trainees' Skill Acquisition in Engineering Courses in TVET Institutes-Lake Victoria Region, Kenya. Concurrent triangulation research design gave a pathway to collect both quantitative and qualitative data for data analysis. This view was advanced by Rothbauer and Poullette, (2008)

#### Sampling

The study adopted stratified sampling, where the student trainee population was divided into four engineering departments (Automotive engineering student, Civil engineering students, Mechanical engineering students, and Electrical & Electronic Engineering students) per TVET institutes. The students per department were individually more homogeneous than the total student trainee population. Kim (2013), stratified sampling results in more reliable and detailed information. Stratified sampling was used because it is an acceptable way of sampling when there is an imbalance in the characteristics of the sample (Creswell, 2014). The trainees were selected proportionately, in line with the recommendation by Orodho (2009),

#### Data collection

The instruments used in this study were the questionnaire and interview schedule. The questionnaire guarantees confidentiality Koul (2004) while interview schedules are flexible and can verify the information in the questionnaire. In-depth interviews are one of the methods used in descriptive designs to act as follow-up instruments for gathering more data (Kothari, 2004). There was the use of an interview schedule for principals, a questionnaire for students and trainers, and workshop technicians.

The study employed both primary and secondary data collection procedures. Primary data was collected using face-to-face interviews with the school principals. Further, self-administered questionnaires were used to collect data from the trainers and students. Questionnaires were used because they can help gather data in a short period and at minimum expense to be incurred by the researcher (Meller, 2001). Unlike interviews, questionnaires can be administered to a large number of respondents in different geographic locations in a short time yet guarantee high response rates with a diversity of information. Secondary data were found in document analysis to check on the entry grades of engineering trainees as permitted by institutions.

### IV. Data Analysis

The impact of principals based on instructional leadership skill ratings was considered in this research. The results were indicated in table 1 below

**Table 1: Impact of Principal Instructional Leadership Skills ratings**

Impact of Principal Instructional Leadership Skills ratings						
	Indicators	n	Likert Rating	Rating	%	Mean Rating
1	Communication interventions	29	77	1-3	71.1	<b>2.24</b>
2	Provision of training facilities	29	100	3-5	56.4	<b>3.59</b>

3	Effective maintenance of training facilities	29	94	3-5	54.1	<b>3.44</b>
4	Facilitation best methods for teaching	29	100	1-3	42.6	<b>2.94</b>
5	Provision of instructional materials	29	100	1-3	32.6	<b>3.17</b>
6	Motivation of trainers	29	102	1-3	30.3	<b>3.29</b>
7	The motivation of trainees by involving them in decision making	29	115	3-5	48.6	<b>3.28</b>

**Source:** Survey data (2021)

In summary, the principals' received a fairly lower rating (mean=2.24) on communication, with close to three out of ten constituting 71.1 percent of the trainers faulting their principals' communication process to both trainers and trainees on policies of the institution. On the provision of training facilities, the results of the survey established a rating of *mean*=3.59 but with a mixed reaction from the surveyed trainees. For instance, whereas 20.7 percent of the trainees who took part in the survey held a contrary opinion, 22.9 percent of them remained noncommittal, but 56.4 percent were in agreement that principals always ensure that buildings and facilities in departments of engineering are always maintained well.

Equally, more than a third constituting 34.7 percent of the sampled trainers which included the principals faulted principals for never upgrading or maintaining their engineering workshops, however, some 54.1 percent of the trainers rated their effort at *mean*=3.44 implying that they believed that their principals were effective.

On their leadership in regards to the quality of teaching and training, the principals received a low rating of *mean*=2.94 with 40.5 percent of the trainers agreeing that principals always advice trainers and trainees on the best methods of teaching at the schools/faculties/departments of engineering. However, 29.4 percent of the surveyed trainers did not believe that their principal's advice trainers on the best methods of teaching in the department of engineering. On the other hand, the principals received a relatively lower rating of *mean*=3.77 on the provision of instructional materials, with about a third 42.6 percent of trainers insisting that their principals hardly provide that trainers with adequate necessary instructional materials for their department of engineering but a bigger percentage of 57.4 agreed.

On the motivation of the trainers, the principals' effort was rated at *mean*=3.81, with 70.7 percent of the surveyed trainees accepting that their principal always appreciates and motivate trainers and students who excel in their areas of specialization, but 29.3 percent of them said that their principals never appreciated or motivated trainers and students.

Equally, their effort to motivate the trainees by involving them in decision-making in areas that affect the department was rated at *mean*=3.93. This was reflected by 78.6 percent of the trainees who confirmed that their principal sometimes engages them in decision-making in matters that directly affect them in the department of engineering. However, some 21.4 percent others refuted the claim that their principals always engage them in decision making in matters that directly affect them in the department of engineering.

#### **4.2.2 Regression Analysis: Impact of Principal Instructional Leadership Practices on TVET Trainees' Skills Acquisition.**

**H<sub>01</sub>:** *There is no statistically significant impact of principals' instructional leadership practices and TVET trainees' skills acquisition.*

Table 2 shows a regression model on the impact of principals' instructional leadership practices and TVET trainees' skills acquisition

**Table 2: Impact of Principals' Instructional Leadership Practices and TVET Trainees' Skills Acquisition.**  
Impact of Principals' Instructional Leadership Practices and TVET Trainees' Skills Acquisition

		Regression Coefficients				
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	18.816	1	18.816	9.610	.002 <sup>b</sup>
	Residual	422.909	250	1.958		
	Total	441.724	251			

a. *Dependent Variable: Trainees' Skill Acquisition*

b. *Predictors: (Constant), Principals' Instructional Leadership Practices*

**Source:** Survey data (2021)

From the regression model (ANOVA) output shown in Table 2, it is evident that the level of principals' instructional leadership practices is a significant predictor of skills acquisition,  $f(1, 250) = 9.610, p = .002$ . This means that the level of principals' instructional leadership practices can be significantly used to predict the level of skills acquisition among the TVET trainees.

Therefore, the null hypothesis was rejected and the conclusion reached that a significant difference exists.

The study which was to ascertain whether the principals always involve their trainers in decision-making in management of the institution, qualitative data show similar results. For example, one of the principals (P-2) reiterated that:

*The solid foundation of any successful organization is its people. Here trainers and departmental heads represent a source of knowledge and ideas, but oftentimes that resource can remain untapped by the principal when not careful. I believe that involving my staff in the decision-making process not only empowers them to contribute to the success of this institute but also saves the institute time and money in increased productivity and reduced outsourcing.*  
P-2

In summary, the study confirmed that principals instructional leadership practices were exploited in the lake region of Kenya.

## V. Discussion

In summary, the principals' received a fairly lower rating (mean=2.24) on communication, with close to three out of ten constituting 71.1 percent of the trainers faulting their principals' communication process to both trainers and trainees on policies of the institution. The study established that there is a statistically significant correlation between principal's instructional leadership skills and skill acquisition of trainees in diploma-level engineering courses at TVET Institutions. It was, therefore, possible to reject the hypothesis that there is no statistically significant relationship between Principal's Leadership Skills and Skill Acquisition of Trainees in Diploma-level Engineering Courses at TVET Institutions.

## VI. Conclusion

The study concluded that there was statistically significant impact of principal's instructional leadership skills where skill acquisition of trainees in diploma-level engineering courses at TVET Institutions were concerned. In addition, the study concluded that trainees in TVET institutions whose principals have high instructional leadership practices are likely to record high skills acquisition than those whose principals exhibit poor instructional leadership practices.

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