

Effect of Career Mentorship on Career Progression in Public Technical Vocational Education and Training Institutions in Machakos County, Kenya

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Abstract

The effects of Career Mentorship on career progression of TVET trainers in Machakos County, Kenya. The study was guided by Wenger's Social Learning Theory and a mixed-methods research design. The target population comprised six principals, twelve Deputy Principals, six Registrars, six Deans of students, 50 Heads of departments, and 150 TVET trainers working in Machakos County, Kenya. The study used a census for principals, Deputy Principals, Registrars, Deans of students, and simple and stratified random sampling for the Heads of departments, and trainers. The sample size from a finite population of 200 respondents, was calculated using Krejcie and Morgan table to obtain a sample size of 162 participants. Both questionnaires and interviews were used to collect the primary data. The questionnaire was piloted at Wote Technical Training Institute to test for reliability and validity. Data was then analyzed using descriptive and inferential statistics using Statistical Package of Social Sciences (SPSS 29.0). Qualitative data was analyzed thematically. The coefficient of determination ($R^2 = 0.285$) indicated that career mentorship explained 28.5% of the variation in career progression. The findings further showed that career mentorship had a statistically significant positive effect on career progression in among TVET trainers in Machakos County, Kenya ($B = 0.574$, $t = 6.775$, $p < 0.001$). The study concludes that by embedding career mentorship within institutional structures, TVET institutions can ensure that trainers are not only technically competent but also strategically guided, motivated, and equipped to advance their careers, thereby enhancing overall institutional performance and quality of education. Thus, The Ministry of Education, institutional administrators, the Technical and Vocational Education and Training Authority (TVETA), the Kenya National Qualifications Authority (KNQA), and TVET institutions should develop and institutionalize comprehensive career mentorship policies.

Keywords: Technical and Vocational Education and Training (TVET), career mentorship, and career progression

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I. Introduction

Career mentorship and career development have emerged as significant issues within Technical and Vocational Education and Training (TVET), given that the effectiveness of TVET institutions depends not only on the availability of qualified trainers but also on their continuous professional development and career advancement (Ovais & Jain, 2025). TVET trainers are required to maintain up-to-date technical competencies, pedagogical capabilities, and industry-oriented knowledge while simultaneously advancing into positions involving greater professional responsibilities. In this context, career mentorship is increasingly viewed as an important strategy for facilitating professional learning, career development, and career progression, particularly within education and training institutions where continuous improvement of knowledge, skills, and professional competencies is essential (Ventimiglia, Setti, & Maffoni, 2026).

Career progression refers to the movement of an employee from one stage, position or level of responsibility to another within an occupational or organizational career pathway (Abga & Bello, 2023). In the context of TVET, career progression can be conceptualized in terms of promotion to higher job grades, increased professional responsibilities, advancement into leadership and management positions, acquisition of higher qualifications, professional competence and access to new career opportunities. Career progression is therefore not limited to a change in job title but encompasses the cumulative development of knowledge, skills, professional identity, responsibilities and opportunities throughout a trainer's career. Accordingly, Kay and Karmowska, (2025) found that mentoring contributed significantly to career development through leadership development, access to professional resources and networks, and guidance on navigating career opportunities. In this regard mentors serve as role models and help mentees identify opportunities for further study and employment, demonstrating that mentorship can facilitate both professional growth and career advancement.

Career mentorship involves developmental support provided by experienced professionals to less experienced colleagues through guidance, role modelling, career advice, networking, coaching and psychosocial support (Ivey & Kathryne, 2022). Career mentorship refers to the developmental assistance offered by experienced professionals to less-experienced colleagues through activities such as career guidance, role modelling, coaching, networking opportunities, professional advice, and psychosocial support. Career mentorship is a structured relationship where experienced professionals guide less experienced individuals to enhance their career growth (Ferrari, Mari, Capelli, & Spolverato, 2022). Career mentorship provides a wide range of benefits for the majority of professionals, which include skill development and competency enhancement. Mentorship provides opportunities for mentees to learn new teaching techniques, industry-relevant skills, and administrative competencies. Structured programs offer targeted support that builds professional capacity aligned with career advancement and increased job satisfaction, and motivation (Putra, Renaldo, Purnama, Putri, & Suhardjo, 2024).

Mentors offer guidance, encouragement, and emotional support, which enhances job satisfaction. Motivated and satisfied trainers are more likely to pursue career development opportunities. Mentorship connects mentees with professional networks and career advancement opportunities. Structured programs often involve planned interactions with industry stakeholders and educational leaders, which open doors for promotions and collaborations. Within Technical and Vocational Education and Training (TVET), career mentorship is particularly important because trainers are expected to continuously update their technical, pedagogical and professional competencies in response to changing industry requirements. Although teachers valued mentorship, the practice was largely restricted to introductions and incidental supportive interactions. Besides, an absence of adequate guidelines for structuring and sustaining mentorship, resulting in inadequate mentoring of new teachers (Njenga, 2023).

Recent evidence from other TVET contexts further reinforces the potential contribution of mentorship to career development. Hlatjwako, Makwara, Sibanda, and Ndlovu (2025) through a systematic review focusing on lecturers in South African TVET colleges, found that coaching and mentoring can enhance pedagogical, personal, social and professional competencies and recommended the formal integration of mentoring frameworks into institutional policies. Similarly, Kay and Karmowska (2025) demonstrate that mentorship can support career identity, leadership development, access to professional networks and navigation of career opportunities within the Kenyan context. Additionally Njenga, (2023) found that vocational teachers in Kenya participate in both formal and informal professional learning activities, highlighting the importance of workplace-based learning and professional interaction in developing teacher competencies. In Kenya, the issue is particularly important because the education reform process has identified the lack of clear career progression guidelines for TVET trainers and reported that many trainers have experienced stagnation in one job group (Republic of Kenya, 2023). Recent evidence from Kenya indicates that mentoring can play an important role in shaping career identity and professional trajectories. Despite this evidence, existing studies have largely focused on professional development, mentoring practices and competency development, rather than empirically establishing the extent to which career mentorship influences the career development and progression of TVET trainers.

Objective

To analyze the effect of career mentorship on career progression of TVET trainers in Machakos county, Kenya.

II. Literature Review

Effect of Career Mentorship on Career Progression

Empirical studies highlight the significant impact of career mentorship on career progression in TVET institutions. Jones and Brown (2019) conducted a study on vocational trainers in the United Kingdom and Germany, finding that mentored TVET trainers were 40% more likely to advance into leadership positions than their non-mentored counterparts. The study revealed that career mentorship enhances professional confidence, industry networking, and career planning skills. Similarly, Miller and Roberts (2021) examined career mentorship programs in Canadian TVET institutions and found that structured mentorship led to a 30% increase in job retention and career satisfaction among trainers. The study highlighted that mentorship provides trainers with industry exposure, professional development opportunities, and guidance on career transitions. However, the studies were conducted in the context of developing countries whose TVET management would be different from the Kenyan context.

In Africa, research emphasizes the role of career mentorship in professional development and career mobility for TVET trainers. Adebayo and Okechukwu (2020) analyzed mentorship programs in Nigerian polytechnics and technical colleges. Their study surveyed 300 TVET trainers and found that mentored trainers had higher promotion rates and stronger industry connections, leading to better career opportunities. In South Africa, Mthembu and Ndlovu (2022) investigated the effectiveness of career mentorship in TVET institutions. They found that 75% of trainers who received structured mentorship progressed to senior roles within five years, compared to 50% of non-mentored trainers. The study concluded that career mentorship bridges the gap between

academia and industry, ensuring trainers remain relevant in the job market. Kenyan studies further affirm the importance of career mentorship in career progression. Mutua and Wanjiru (2023) examined career mentorship initiatives in public TVET institutions and found that trainers with access to mentorship had a 60% higher likelihood of being promoted than those without mentorship. The study emphasized that career mentorship provided trainers with guidance on professional development, research opportunities, and leadership training.

Additionally, Mwangi et al. (2023) researched career mentorship in TVET institutions in Machakos County, revealing that trainers who participated in mentorship programs were more engaged in networking, industry collaborations, and professional certifications, leading to enhanced career prospects. The study recommended that career mentorship be institutionalized as a key component of TVET professional development programs. Several key findings emerge from the reviewed empirical studies: Career Growth and Leadership Development: Career mentorship increases trainers' chances of securing leadership roles and career advancements.

Mentorship and career development in Kenya's public universities were studied by Ng'ang'a and Otara (2012). The findings indicate that structured mentorship led to enhanced research capacity, leadership readiness, and clarity in career paths among academic staff. Highlighted the need for stronger institutional frameworks to support mentorship in Kenyan institutions. Mentorship facilitates connections between trainers and industry professionals, enhancing job mobility. The reviewed literature provides strong empirical evidence that career mentorship contributes to leadership development, professional competence, industry linkages, and upward mobility among TVET trainers (Jones & Brown, 2019; Miller & Roberts, 2021; Adebayo & Okechukwu, 2020; Mthembu & Ndlovu, 2022; Mutua & Wanjiru, 2023). However, most of these studies are situated in non-Kenyan or broadly national contexts and therefore do not adequately account for the institutional, administrative, and policy-specific dynamics of public TVET institutions in Machakos County. Further, existing studies predominantly report mentorship outcomes descriptively, with limited empirical effort to conceptualize career mentorship as a systematic predictor of career progression, measured through promotion, leadership appointment, professional mobility, and access to career development opportunities. Although preliminary evidence from Machakos County indicates that mentorship enhances networking and professional certification among trainers (Mwangi et al., 2023), there remains a paucity of localized, empirical studies that establish the magnitude and direction of this relationship within public TVET institutions. Consequently, this study addresses this gap by explicitly positioning career mentorship as an explanatory variable influencing career progression among trainers in public TVET institutions in Machakos County. In doing so, the study contributes context-specific evidence to strengthen mentorship policy formulation, institutional professional development frameworks, and human resource practices within Kenya's TVET sector.

Conceptual Framework

According to Van der Walddt (2020), a Conceptual framework serves as a visual and theoretical guide that connects key concepts and variables in a study, outlining how they relate to one another. In this study, the framework illustrates the link between career peer mentorship and it effects on career progression. The framework helped understand how career peer mentorship contribute to the Career Progression of TVET trainers.

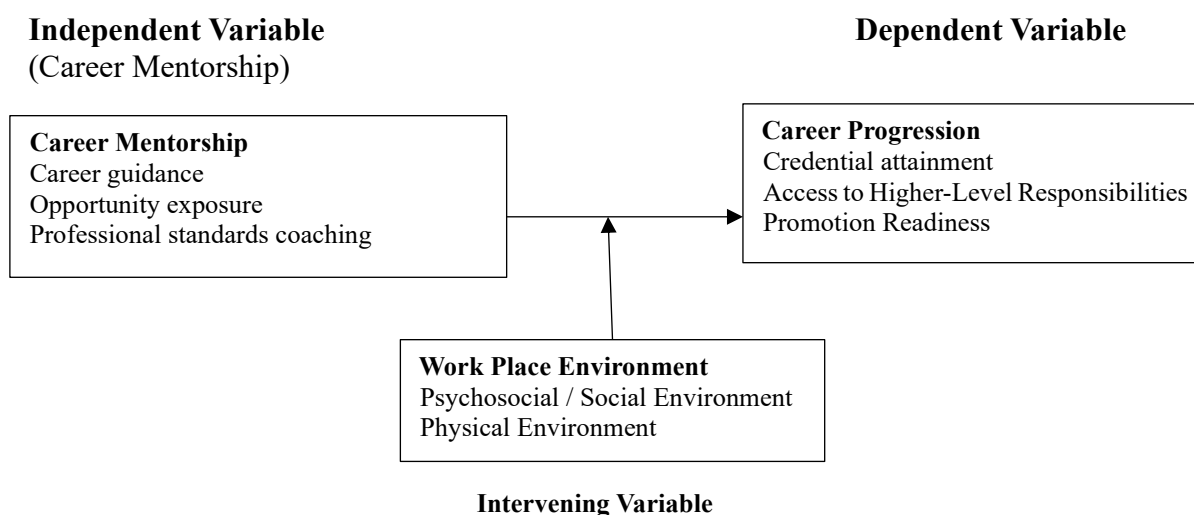


Figure 1 Conceptual framework showing the relationship between Career Mentorship Programs and Career Progression.

Source (Author, 2026)

Career Mentorship operationalises key components of CoP, particularly mutual engagement and community access. Through career guidance, exposure to networks, and instruction on professional norms (Deng, Wu, Zhang, Yu, & Xu, 2022), mentees are integrated into vocational communities, expanding their access to opportunities. These processes align with CoP's emphasis on learning through participation in shared enterprise and accessing the community's resources for growth. Career Mentorship was measured in terms of career guidance, exposure to networks, and instruction on professional norms.

III. METHODOLOGY

Research Design: The study adopted a descriptive research design which blended quantitative and qualitative data to provide relevant and accurate information on how structured mentorship programs influence the career progression of TVET trainers in Machakos County, Kenya. The use of a mixed-method approach helped to strengthen the validity of findings and complement the weaknesses of each method (Nanthagopan, 2021).

Target Population: The target population comprised six principals, twelve Deputy Principals, six Registrars, six Deans of students, 50 Heads of departments, and 150 TVET trainers working in Machakos County, Kenya. The table below shows the distribution of the target population as shown in Table 3.1.

Sample and the sampling techniques: the sample frame included academic staff of TVET institutions in Machakos County, categorized by cadres as principals, Deputy Principals, Registrars, Deans of students, Heads of departments, and trainers. The study used a census for principals, Deputy Principals, Registrars, Deans of students. The study used a stratified random sampling for the Heads of departments, and trainers.

The total population of heads of departments and trainers of public TVET institutions in Machakos County is 230. To calculate the sample size from a finite population of 200 respondents, Krejcie and Morgan table was used to obtain a sample size of 132.

After the proportion allocation formula was used to distribute the sample size in each stratum. Proportional allocation sets the sample size in each stratum equal to be proportional to the number of sampling units in that stratum (Gupt, Lalthlamuanpuii, & Ahamed, 2021).

That is.

$$n_h = (N_h / N) * n.$$

Where n_h = sample size for stratum h ,

N_h = population size for stratum h ,

N = total population size,

n = total sample size

This was added to the 30 principals, deputy principals, registrars, deans of students who were considered for qualitative data, totaling 162 participants as presented in table 1:

Table 1 Summary of Sample Size and Sampling Techniques

Category of Participants	Target Population	Sample Size	Sampling Technique
Principals	6	6	Census
Deputy Principals	12	12	Census
Registrars	6	6	Census
Dean of Students	6	6	Census
Head of Department	50	33	Stratified and Simple random sampling
Trainers	150	99	Stratified and Simple random sampling
Total	230	162	

Source (TVET institutional records, 2025)

Data Collection: Both questionnaires and interviews was used to collect the primary data. An interview schedule was used to get information from key informants who included principals, deputy principals, registrars, and deans of students, while questionnaires were administered to the other cadres of academic staff in TVET which were involved in this study who are heads of departments and trainers.

Data Collection Procedures: Before commencement of the study, clearance from Machakos University was sought. A research permit from the National Commission for Science, Technology, and Innovation (NACOSTI) was obtained. Further approval and authorization from the Machakos County Director of TVET was sought to undertake the study. Visits to the institutions for approval, introductions, and making appointments for the days to administer the questionnaires and interviews. This enhanced the legitimacy of the study.

Data Analysis: Once filled questionnaires are collected, each questionnaire was assigned a unique identification to avoid double entry and to facilitate coding of variables. All the data collected was coded and entered into an SPSS sheet, organized, and cleaned for any inconsistencies. The data was processed using Statistical Packages for

Social Sciences software (SPSS 29.0). Data was analysed using descriptive and inferential statistics using the Statistical Package of Social Sciences (SPSS 29.0). Simple linear regression model was as follows:

$$Y = \beta_0 + \beta_1 X_1 + \epsilon \dots \dots \dots \text{Equation 3.1}$$

Where Y is career progression, dependent variable X represented career mentorship, and β_1 is the unstandardized regression coefficients.

β_0 represents the y-intercept

Y represents career progression

X_1 represents career mentorship

Qualitative data collected through interviews were analyzed using thematic analysis.

Ethical Considerations : Necessary ethical concerns ensured that the authorities are informed, and permission to conduct the research was obtained. The main aim of observing ethical issues is to enhance the integrity of the findings obtained. Honesty and integrity when conducting the study was maintained by ensuring that the data used was credible. The research standards were followed, and reference materials was duly cited. The principles of informed consent and voluntary participation was adhered to. The respondents took part in this study on a voluntary basis without any form of external pressure.

IV. DATA ANALYSIS , PRESENTATION AND INTERPRETATION

Career Mentorship in in TVET institution in Machakos County

Career Mentorship is a structured developmental relationship in which a more experienced individual (mentor) supports a less experienced person (mentee) in advancing their career, building competencies, and achieving professional goals (Ferrari, Mari, Capelli, & Spolverato, 2022). It focuses on career growth, skill acquisition, networking, and progression opportunities, complementing psychosocial support. According to the study findings presented in Table 2 the researcher sought to know the status of career mentorship amongst trainers in TVET institutions in Machakos County, Kenya.

Table 2:
Career Mentorship amongst Trainers in TVET institution

Responses	SD %	D %	UD %	A %	SA %	Mean	SD
My mentor provides clear guidance that helps me plan my long-term career path in the TVET sector.	1.7	13.7	0.0	23.9	60.7	4.28	1.113
I receive valuable advice from my mentor on how to progress professionally within my institution.	0.0	0.0	0.0	46.2	53.8	4.54	.501
My mentor informs me about available career development opportunities such as workshops, training, or scholarships.	0.0	0.0	5.1	21.4	73.5	4.68	.567
I am exposed to professional networks and events through my mentor's recommendations.	2.6	6.0	5.1	25.6	60.7	4.36	1.004
My mentor coaches me on the professional norms and standards expected in the TVET teaching profession.	0.0	9.4	27.4	29.9	33.3	3.87	.987
My mentor regularly guides me on how to meet institutional expectations and ethical requirements.	7.7	7.7	30.8	38.5	15.4	3.46	1.087
Career Mentorship						4.20	.425

Source: Field Data (2026)

KEY: 5 = Strongly Agree (SA) 4 = Agree (A) 3 = Undecided (UD) 2 = Disagree (D) 1 = Strongly Disagree (SD)

From the findings 84.6% of the respondents agreed and strongly agreed that their mentors provide clear guidance that helps them plan their long-term career path in the TVET sector 15.4% strongly disagreed and disagreed with (M=4.28). There was a deviation from the mean (SD=1.113), where the responses ranged from strong disagreement and strong agreement. Besides, 100% of the respondents agreed and strongly agreed that they receive valuable advice from their mentor on how to progress professionally within their institution (M=4.54). There was a deviation from the mean (SD=.501), where the responses ranged from agreement and strong agreement. These insights reinforce that career mentorship strengthens career clarity, strategic decision-making, and upward mobility, thereby embedding a culture of professional role modelling and continuous development. This was further expounded by interview responses, where the administrators consistently indicated that; *"Mentors instill discipline, accountability, and commitment among trainers. Over time, trainers develop a strong professional identity, which positively influences their performance and career advancement."* In addition another interviewee had this to say;

“Mentors demonstrate high levels of professionalism in teaching, assessment, and conduct, which trainers tend to emulate. This exposure helps trainers align with institutional expectations and improves their readiness for higher responsibilities.”

Besides another interviewee had this to say;

“Mentors act as practical examples of effective teaching and administrative skills. Trainers learn by observing and replicating these practices, which enhances their competence and prepares them for career growth.”

Additionally, another interviewee had this to say;

“Mentors guide trainers on the steps required for career advancement, including further studies and leadership roles. As a result, trainers become more focused and proactive in planning their career progression.”

These implies that career mentors play a transformative role beyond supervision by actively shaping trainers' career orientation, professional identity, and advancement trajectory. Through professional role modelling, structured career guidance, encouragement, and the internalization of work values and ethics, mentorship becomes a mechanism for transmitting both competence and professional culture within TVET institutions. Jones and Brown (2019) underscore that career mentorship enhances professional confidence, industry networking, and career planning skills. Similarly, Miller and Roberts (2021) Mutua and Wanjiru (2023) notes that career mentorship provides trainers with industry exposure, professional development opportunities, and guidance on career transitions, research opportunities, and leadership training. Thus, by embedding career mentorship into policy and institutional practice, TVET systems can transform mentorship into a strategic human resource development tool, ensuring trainers are not only technically competent but also career-oriented, motivated, and prepared for leadership and advancement within the sector.

In addition, 94.9% of the respondents were in agreement with $M=4.68$ that their mentors inform them about available career development opportunities such as workshops, training, or scholarships with $SD=0.567$, responses ranged from "Undecided" to "Strongly Agree", but no one selected "Strongly Disagree". This implies that career mentors are not passive advisors but active career enablers and information brokers, who strategically expose mentees to professional development avenues such as workshops, training programmes, and scholarships. Through this role, mentors enhance trainers' career visibility, preparedness, and competitiveness, which are critical for career progression within TVET institutions. This was further expounded by interview responses, where the administrators consistently indicated that;

“Mentors consistently demonstrate how to identify and utilize career development opportunities such as trainings and workshops. Trainers observe this behavior and become more proactive in seeking similar opportunities, which enhances their career growth.”

Additionally, 86.3% of the respondents agreed and strongly agreed that they are exposed to professional networks and events through their mentor's recommendations ($M=4.36$) while 8.6% were in disagreement. There was a deviation from the mean ($SD=1.004$), where the responses ranged from strong disagreement and strong agreement.

Additionally, 63.2% of the respondents agreed and strongly agreed that their mentors coach them on the professional norms and standards expected in the TVET teaching profession ($M=3.87$) while 9.4% were in disagreement and 27.4% undecided. There was a deviation from the mean ($SD=.987$), where the responses ranged from disagreement and strong agreement.

Lastly, 54.3% of the respondents agreed and strongly agreed that their mentors regularly guides them on how to meet institutional expectations and ethical requirements ($M=3.46$) while 15.4% were in disagreement and 30.8% undecided. There was a deviation from the mean ($SD=1.087$), where the responses ranged from Strong disagreement and strong agreement. In fine respondents were in agreement with all the statements on career mentorship with a mean of 4.20 and SD and .425. The implications of these results are that the respondents confirmed the presence of the aspects of career mentorship in TVET institutions. These qualitative insights reinforce the quantitative findings by showing that mentors act as active conduits of career information, role models of opportunity utilization, and catalysts for proactive career behavior. Basing on the findings the, TVET institutions should TVET institutions should strategically strengthen and institutionalize career mentorship as a core driver of trainers' career progression.

Status of Career Progression in TVET institution in Machakos County

In the context of TVET institutions, career progression reflects a trainer's growth in technical competence, instructional effectiveness, administrative capacity, and overall professional development (Diao, Han, Zhou, & Wang, 2023). According to the study findings presented in Table 3 the researcher sought to know the status of career progression amongst trainers in TVET institutions in Machakos County, Kenya.

Table 3:
Career Progression amongst Trainers in TVET institution

Responses	SD %	D %	UD %	A %	SA %	Mean	SD
I have obtained additional professional certifications that enhance my qualifications as a TVET trainer.	0.0	1.7	18.8	33.3	46.2	4.24	.816
My institution encourages and supports me in pursuing higher-level credentials relevant to my teaching field.	0.0	0.0	2.6	26.5	70.9	4.68	.519
I am increasingly assigned advanced duties such as leading programs, supervising trainees, or coordinating activities.	0.0	0.9	4.3	47.9	47.0	4.41	.618
My responsibilities at work have expanded over time, reflecting trust in my professional capabilities	2.6	5.1	10.3	36.8	45.3	4.17	.985
I believe I possess the competence and experience required to qualify for promotion within the institution.	0.9	3.4	24.8	25.6	45.3	4.11	.954
My mentor and supervisors consider me ready for higher positions or leadership roles.	7.7	1.7	6.8	10.3	73.5	4.40	.789
I am confident in my preparedness to take on more senior roles in the TVET system.	0.0	17.1	0.0	67.5	15.4	3.81	.900
Career Progression				4.26	.674	4.26	.674

Source: Field Data (2026)

KEY: 5 = Strongly Agree (SA) 4 = Agree (A) 3 = Undecided (UD) 2 = Disagree (D) 1 = Strongly Disagree (SD)
According to the findings presented in Table 3 majority of the respondents (79.5%) agreed and strongly agreed that they have obtained additional professional certifications that enhance their qualifications as TVET trainers (M=4.24) while 1.7% were in disagreement and 18.8% undecided. There was a deviation from the mean (SD=0.816), where the responses ranged from disagreement and strong agreement. Additionally, majority of the respondents (97.4%) agreed and strongly agreed that their institutions encourage and supports them in pursuing higher-level credentials relevant to their teaching field (M=4.68) while 2.6% were undecided. There was a deviation from the mean (SD=.519), where the responses ranged from undecided and strong agreement. Besides, majority of the respondents (94.9%) agreed and strongly agreed that they increasingly assigned advanced duties such as leading programs, supervising trainees, or coordinating activities (M=4.41) while 0.9% were in disagreement and 4.3% undecided. There was a deviation from the mean (SD=.618), where the responses ranged from disagreement and strong.

Thus, career progression amongst trainers in TVET has been significantly enhanced through structured mentorship, exposure to advanced duties, and continuous professional development, enabling trainers to acquire the skills, experience, and qualifications necessary for higher-level responsibilities and promotions. This implies that career progression is not merely a function of tenure but is actively facilitated by mentorship programs, professional guidance, and institutional support, which collectively improve trainers' competence, confidence, and readiness for leadership or specialized roles. It was further expounded by interview responses on what ways do mentors create opportunities for trainers to gain exposure to new responsibilities or experiences? where the administrators consistently indicated that;

"Mentors often asks trainner to coordinate student training sessions and manage departmental projects, which exposes me to leadership tasks I wouldn't normally handle."

Additionally, another respondent noted that

"Through mentors, trainers are invited to a regional TVET workshop, where they meet other trainers and learn new teaching methods."

Besides another respondent noted that

"My mentor involves me in planning departmental programs, helping me understand how decisions are made and executed."

From these responses mentors actively facilitate career progression by giving trainers hands-on experiences, building professional networks, broadening skill sets, involving them in decision-making, and enhancing visibility within the institution. Additionally, majority of the respondents (82.1%) agreed and strongly agreed that their responsibilities at work have expanded over time, reflecting trust in their professional capabilities (M=4.17) while 7.8% were in disagreement and 10.3% undecided. There was a deviation from the mean (SD=0.985), where the responses ranged from strong disagreement and strong agreement. Besides, a majority the respondents (70.9%) agreed and strongly agreed that they possess the competence and experience required to qualify for promotion within the institution (M=4.11) while 4.3% were in disagreement while 24.8% were undecided. There was a deviation from the mean (SD=0.954). A majority the respondents (83.8%) agreed and strongly agreed that their

mentors and supervisors consider them ready for higher positions or leadership roles while 9.4% were in disagreement and 6.8% undecided ($M=4.40, SD=.789$). In line with these responses interviewees were asked in what ways has mentorship enabled trainers to access higher-level responsibilities within the institution?. the administrators consistently indicated that;

“Some trainers are assigned to coordinate assessment exercises and manage student projects, responsibilities which they wouldn’t have received without mentorship.”

Additionally;

“Through structured guidance, some trainers now understand what is required to apply for senior trainer positions and feel prepared to take on those roles.”

Besides;

“Some mentors include trainers in the planning meetings for new programs, which helped them understand decision-making at a higher level.”

In these regard mentorship directly facilitates career progression by giving trainers structured access to leadership roles, advanced tasks, decision-making, and visibility effectively preparing them for higher-level responsibilities within TVET institutions. Lastly, majority of the respondents (82.9%) were in agreement with ($M=3.81$) that they are confident in their preparedness to take on more senior roles in the TVET system while 17.1% were in disagreement with ($SD=0.900$). Respondents were in agreement with virtually all the statements with a mean of 4.26 and SD and .67. Thus it is evident that career progression is in TVET institutions in Machakos County.

Simple Linear Regression Analysis of Effect of structured mentorship programs on (career progression) of TVET trainers in Machakos County, Kenya

Simple linear regression was used for data analysis. The model assumes that the relationship between the variables is linear and can be described by a straight line. Simple linear regression is a statistical method used to model the relationship between one independent variable (X) and one dependent variable (Y) (Roback & Legler, 2021). The study also examined the effect of career mentorship on the dependent variable (career progression) of TVET trainers in Machakos County, Kenya.

Table 4:
Model Summary of career mentorship programs and career progression

Model	R	R Square	Adjusted Square	RStd. Error of the Estimate	of R Square Change	F Change	Sig. F Change	Durbin-Watson
1	.534 ^a	.285	.279	.388	.285	45.897	0.000	1.636

a. Predictors: (Constant) career mentorship

b. Dependent Variable: career progression

Source: Research Data, (2024)

In table 4 The model showed that career mentorship is positively related to career progression with $R=0.534^a$. The model summary of simple linear regressions showed that career mentorship explained 28.5 percent variation on career progression. This showed there is a probability of 28.5percent ($R^2=0.285$) in predicting on career progression. This implies that career mentorship improved the prediction on career progression among TVET trainers in Machakos County, Kenya.

The coefficients of career mentorship and career progression are presented in table 5.

Table 5:
Coefficients of career mentorship programs and career progression

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1 (Constant)	1.852	.357		5.182	.000
Career Mentorship	.574	.085	.534	6.775	.000

Dependent Variable: Career progression

Source: Field Data (2026)

From the results on table 5, There was some form of career progression based on the constant value of 1.852, without career mentorship as a predictor.

A unit change in career mentorship led to 0.574 units of statistically significant ($t= 6.775$; $p<0.05$) positive change in career progression amongst trainers in TVET institutions in TVET institutions in Machakos County while holding all other variables constant. The study confirms that career mentorship significantly affect

career progression in TVET institutions. From the foregoing, the career mentorship under study and career progression model can now be presented as follows:

$$Y = 1.852 + 0.574X_1 + \varepsilon \dots\dots\dots \text{Eq. 2}$$

V. Conclusion

Based on the research questions on what is the contribution of career mentorship to the career progression of TVET trainers in Machakos County, Kenya?. The study concludes that career mentorship has a statistically significant effect on career progression amongst trainers in TVET institutions in Machakos County, Kenya. These findings are supported by Adebayo and Okechukwu (2020), Mthembu and Ndlovu (2022) and Mutua and Wanjiru (2023) who also found that Career Mentorship significantly affects Career Progression. This implies that career mentorship is a critical enabler of trainers' professional growth, serving not only as a mechanism for skill development and opportunity awareness but also as a strategic pathway for structured career advancement. It reinforces the notion that trainers who are actively guided, supported, and exposed to career development opportunities are more likely to progress in their professional roles within TVET institutions.

The statistically significant effect ($p = 0.000$) demonstrates that when trainers receive career mentorship, they gain clarity on career pathways, access to professional development opportunities, and motivation to pursue leadership and promotion prospects. By observing and emulating mentors, trainers internalize professional behaviors, decision-making strategies, and proactive career attitudes, consistent with Wenger's Social Learning Theory, which posits that individuals learn by observing and modeling the behavior of others. By embedding career mentorship within institutional structures, TVET institutions can ensure that trainers are not only technically competent but also strategically guided, motivated, and equipped to advance their careers, thereby enhancing overall institutional performance and quality of education.

VI. Recommendations

The administrators should institutionalize structured career mentorship programmes by developing formal mentorship programmes with clearly defined objectives, roles, and responsibilities for mentors and mentees. Besides, the administrators should ensure regular mentor-mentee engagements focusing on career guidance, professional skills, and exposure to development opportunities. Additionally, the administrators should promote career opportunity awareness by facilitating structured mechanisms for trainers to access these opportunities, such as career briefings, newsletters, or online portals and embed career mentorship in performance appraisal.

The administrators should Facilitate industry linkages to promote career mentorship by promoting collaborations between TVET institutions and industry partners to expand mentorship networks and career advancement opportunities for trainers. Develop Policy Frameworks for Career Mentorship by formulating national guidelines that recognize career mentorship as an essential component of TVET human resource development. Promote Collaboration Between Academia and TVET Institutions to facilitate career mentorship capacity-building workshops and joint professional development initiatives to enhance trainers' career competencies.

References

- [1]. Abga, M. M., & Bello, M. F. (2023). Career progression and workers' motivation in the Nigerian public service. . *International Journal of Public Administration and Management Research*, 8(5), 52-63.
- [2]. Adebayo, T. O., & Yusuf, M. A. (2019). Peer mentoring and professional development among TVET trainers in Nigerian polytechnics. *African Journal of Technical and Vocational Education*, 7(2), 87–104.
- [3]. Adebayo, T., & Okechukwu, L. (2018). Effect of mentorship programs on professional development of TVET trainers in Nigerian polytechnics and technical colleges. *Journal of Vocational and Technical Education Research*, 10(2), 55–70.
- [4]. Deng, H., Wu, W., Zhang, Y., Yu, Z., & Xu, H. (2022). Exploring the differential effects of career and psychosocial mentoring on newcomer socialization. *Frontiers in Psychology*, 13, Article 975064. <https://doi.org/10.3389/fpsyg.2022.975064>.
- [5]. Deng, J., Deng, Y., & Cheong, K. H. (2021). Combining conflicting evidence based on Pearson correlation coefficient and weighted graph. *International Journal of Intelligent Systems*, 36(12), 7443-7460.
- [6]. Ferrari, L., Mari, V., Capelli, G., & Spolverato, G. (2022). Mentorship and early career mentorship. *Artificial Intelligence Surgery*, 2(4), 177-185.
- [7]. Gupta, B. K., Lalithamuanpuui, F., & Ahamed, M. I. (2021). Choice of strata boundaries for allocation proportional to stratum cluster totals in stratified cluster sampling. *Mathematics and Statistics*, 9(5), 697-710.
- [8]. Ivey, G., & Kathryn, E. D. (2022). "Workplace mentorship: A critical review." *Journal of Career Development*, 49.3 (2022): 714-729.
- [9]. Jones, T. L., & Brown, S. K. (2019). Career mentorship and leadership advancement among vocational trainers in the United Kingdom and Germany. *International Journal of Training and Development*, 23(4), 289–305.
- [10]. Kay, S., & Karmowska, J. (2025). Personal factors in the career development of early career researchers in Kenya and implications for models of mentoring practice. *Higher Education*, 90, 1105–1122.
- [11]. Miller, A. J., & Roberts, D. L. (2021). Career mentorship and professional development outcomes among TVET trainers in Canada. *Journal of Vocational Education Research*, 14(2), 98–115.

- [12]. Mthembu, S. T., & Ndlovu, P. M. (2022). Career mentorship and professional advancement among TVET trainers: Bridging academic and industry competencies. *Journal of Technical and Vocational Education and Training Studies*, 9(1), 72–89.
- [13]. Mutua, J. M., & Mwangi, P. K. (2022). Effectiveness of peer mentorship in enhancing industry linkages and career advancement among trainers in public TVET institutions in Kenya. *East African Journal of Technical and Vocational Education*, 5(3), 120–137.
- [14]. Mutua, J. M., & Wanjiru, L. K. (2022). Psychosocial mentorship and career outcomes among trainers in public TVET institutions in Kenya. *East African Journal of Technical and Vocational Education*, 5(2), 78–94.
- [15]. Nanthagopan, Y. (2021). Review and comparison of multi-method and mixed method application in research studies. *Journal of Advanced Research*, 2(3), 55-78.
- [16]. Ng'ang'a, J. W., & Otara, A. (2012). Mentorship and career development in Kenya's public universities: Implications for academic staff growth and institutional support systems. *Journal of Higher Education in Africa*, 10(3), 55–72.
- [17]. Njenga, M. (2023).). How do vocational teachers learn? Formal and informal learning by vocational teachers in Kenya. . *International Journal for Research in Vocational Education and Training (IJRVET)*, 10(1), 24-45.
- [18]. Njenga, M. (2023). TVET teacher mentoring in Kenya: valued but poorly implemented. . *International Journal of Mentoring and Coaching in Education*, 12(2), 113-127.
- [19]. Ovais, D., & Jain, R. (2025). Designing mentorship and coaching programs to support career development and innovation in higher educational institutions: a systematic literature review. . *Cultivating Creativity and Navigating Talent Management in Academia*, 91-116.
- [20]. Putra, R., Renaldo, N., Purnama, I., Putri, N. Y., & Suhardjo, S. (2024). Enhancing Teacher Performance through Capacity Building: A Comprehensive Analysis of Professional Development, Mentoring, and Organizational Support. *Reflection: Education and Pedagogical Insights*, 2(1), 1-8.
- [21]. Roback, P., & Legler, J. (2021). Beyond multiple linear regression: applied generalized linear models and multilevel models in R. *Chapman and Hall/CRC*.
- [22]. Van der Waltd, G. (2020). Constructing conceptual frameworks in social science research. TD. *The Journal for Transdisciplinary Research in Southern Africa*, 16(1), 1-9.
- [23]. Ventimiglia, G., Setti, I., & Maffoni, M. (2026). Mentoring in Hospital Settings: A Systematic Review of Guidance, Care, and Professional Development. *In Healthcare*, 14(4), 505.
- [24]. Wanjiru, M. (2023). Structured mentorship programs and career advancement of TVET trainers in Machakos County, Kenya. *Journal of Technical Education and Training*, 15(1), 23–38.