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The Relationship Between Trainers 'Competence in Knowledge of Subject Content and acquisition of Skills among Trainees in TVET in Bungoma County, Kenya.

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ABSTRACT

This study set out to explore the relationship between trainers 'competence in knowledge of subject content and acquisition of skills among trainees in TVET in Bungoma County, Kenya. The study was guided by Social Learning Theory. The study employed descriptive survey design. The study targeted all the 800 Trainees enrolled for TVET courses and 400 Trainers of TVET in Bungoma County. Simple random sampling technique was used to arrive at the participants. A sample of 200 Trainees and 80 Trainers participated in the study. The study used questionnaires and Focused Group Discussion guides and interview to collect data. Test- retest technique was employed to ascertain reliability of the questionnaires at alpha 0.70. Quantitative data was analyzed using descriptive namely; percentages, frequencies, means and standard deviation and inferential statistics namely; correlation and Pearson coefficient. Statistical Package for Social Scientists (SPSS Version 25.0) was used to analyze data. Qualitative data was recorded, transcribed and reported thematically. The findings were presented using figures and tables. The study found that the multiple regression model with all the nine independent variables that were statistical correlated with the outcome variable produced an adjusted R-Square of 0.11, $F(7,68) = 1.224$, $p<0.05$. The coefficient results presented in Table 4.11 suggest that variables vartc1, vartc2 vartc4 and vartc11 were statistically significant at $p<0.05$. Otherwise, other variables namely vartc3 and vartc7 were not statistically, $p>0.05$. This means that the two variables were no more useful when fitted into the model. Hence the two variables had no contribution towards acquisition of skills among Trainees.researcher recommended that provision of specialized training for trainers in their respective fields to ensure they have a solid understanding of the subject matter they are teaching. This could involve collaborations with industry experts or higher education institutions to deliver advanced subject-specific training. Establish mechanisms for assessing the competence of TVET trainers in both subject content and instructional skills. This could involve regular evaluations, peer reviews, or performance assessments to ensure trainers meet the required standards. Ensure trainers have access to adequate resources and support to enhance their subject knowledge and instructional abilities. This could include access to updated curriculum materials, textbooks, technology, and mentorship programs. Encourage collaboration and networking among TVET trainers within Bungoma County and beyond. This can facilitate knowledge sharing, peer learning, and the exchange of best practices to improve both subject content knowledge and teaching skills.

Key words: ***Trainers, Competence, Subject Content, acquisition, Skills & Trainees***

1. INTRODUCTION

The link between theory and practice has often been identified as a possible weakness in the traditional system of TVET Trainer Training (Bünning, 2024). Balancing supply of skills with demand in the labour market constitutes one of the fundamental issues in skills development policy. Historically, however, since economic and technological change worldwide accelerated in the 1980s the inability of most TVET systems to adequately respond to these challenges can mostly be seen as a major skill mismatch due to an insufficient demand orientation in TVET.

This is still a challenge since the demand for skilled labour has risen significantly due to globalization, changes in technology, the organization of work, new development policies, including the transition to a low carbon economy, and the recent international financial crises and subsequent worldwide recession. (Lauglo, 2021) posits that qualified TVET human resources are

in chronic short supply in many countries and at the basic level is the problem of how best to Institutionalize initial instructor training and how best to recruit Instructor-Trainees to such training. Developing countries including Kenya encounter problems in designing provisions for instructor training in the many vocational specialties in such a way that they avoid underutilization of training capacity. Large and small systems have problems ensuring that the pedagogy part of such training is sufficiently relevant for the practicalities of skills teaching in the concerned vocational specialty (Lauglo, 2023).

In the present environment, many observers contend that different individual skills sets are needed. A more complete skills mix incorporates many generic skills such as the ability to think logically, to plan precisely, to anticipate difficulties and to be innovative and creative so as develop and update the necessary capacities and skills (individuals) need to enable them to be productively employed for their personal fulfillment and the common well-being (Kaufmann, 2008). Consequently, there is a demand for a more skilled labour force, with more autonomous, adaptable and multi-functional workers. A more effective delivery of TVET as well as assessment of its functional outcomes through cooperation in TVET systems between enterprises and colleges and with other stakeholders cannot be generally applied (Allais et al., 2019). However, the sharing of responsibility with employment stakeholders, especially when it comes to certification, measuring output-orientation of learning and better recognition of 22 prior learning can still be much improved. In many countries, though, TVET and existing labour market policies do not always facilitate the college to work transition, thereby handicapping young people especially in obtaining a head start in working life. For TVET systems to become more flexible and responsive to new skill demands would involve employment services, a labour market Institution that is a crucial link between the training provided, labour requirements and responsiveness to labour market conditions, therefore also for Trainers/Trainers and Trainees in order to make informed choices in the teaching/training dynamics. The key questions accordingly are what strategies are needed to address the lack of cooperation and create greater synergies between Trainer training and skills development producers, and public and private employers, in ways that render the transition from Institutions to work more responsive to job market needs? One set of responses has been provided in a recent ILO policy dialogue forum on sectoral training strategies. Examining global drivers of long-term change that bear on the provision of training and skills, a strategic framework that creates bridges between training and the world of work, and the essential building blocks of a robust training strategy, the strategy emphasizes the cornerstones of policies to expand skills and broaden access to skill formation: quality education as a foundation for future training; a close matching of skill supply to the needs of enterprises and labour markets; enabling workers and enterprises to adjust to changes in technology and markets; and anticipating and preparing for the skills of the future.

The strategy insists that, when applied successfully, the approach nurtures a virtuous circle in which more and better education and training fuels innovation, investment, economic diversification and competitiveness, as well as social and occupational mobility – and thus the creation of more but also more productive and rewarding jobs (ElObeidy, 2016). Skills challenge is more complex in Kenya due to such factors as: low quality of training which lays emphasis on theory and certification rather than on skills acquisition and proficiency testing, inadequate instructor training, obsolete training equipment, and lack of instructional materials. These combine

to reduce the effectiveness of training in meeting the required knowledge and skills objectives. It is however, understood that low investment in skill training for Trainer training Institutions is key may result to the skills mismatch being witnessed. Thus, graduates from these Institutions tend to get excluded from the world of work because they lack productive skills and core values and attitudes which translate into positive work ethics.

The gap between the TVET Trainer training Institutions and the work situation is a challenge that had to be confronted and resolved. It is believed that this study addressed some of these issues. (Nyerere, 2019) suggested the need for a national skills inventory, backed by an efficient labour market information system to ensure that training is based on the correct demands in the wage employment sector and promotion of self-employments in Technical Education with industry. This involves carrying out frequent needs assessment and tailoring of TVET Trainer training curriculum to meet the changing technological needs. It is important that the skills TVET Institutions provide coincide with the needs and opportunities in the world of work.

2.0 Social Learning Theory

Social Learning Theory Proposed by Albert Bandura (1962), this theory emphasizes the role of social interaction and observation in learning. Trainers who are knowledgeable about the subject content can serve as role models for trainees, demonstrating skills and behaviors that they can emulate and practice. Social Learning Theory, proposed by Albert Bandura, emphasizes the importance of social interactions, observation, and modeling in the learning process (Nwagu, 2018). It suggests that individuals learn by observing others' behaviors, attitudes, and outcomes of those behaviors. In the context of the relationship between trainers' competence in knowledge of subject content and the acquisition of skills among trainees in Technical and Vocational Education and Training (TVET) in Bungoma County, Kenya, Social Learning Theory can be highly relevant. Here's why: Trainers who demonstrate high competence in subject content serve as models for trainees

Trainees observe their trainers' behaviors, techniques, and expertise in the subject matter. According to Social Learning Theory, individuals are more likely to learn from models who are competent and credible in the domain. Trainees may imitate the skills and behaviors of competent trainers. When trainers effectively demonstrate skills and knowledge, trainees are more likely to replicate those behaviors. This process of modeling and imitation is central to Social Learning Theory. Social Learning Theory emphasizes the role of reinforcement and feedback in the learning process. Competent trainers can provide constructive feedback and positive reinforcement to trainees, which enhances learning and skill acquisition. This feedback loop contributes to the effectiveness of training programs in Eusocial Learning Theory underscores the significance of the social context in learning. In TVET settings, interactions between trainers and trainees create a social environment conducive to learning. Trainers' competence in subject content influences the quality of these interactions and, consequently, the effectiveness of skill acquisition among trainees (Lawrence, 2019).

Social Learning Theory introduces the concept of self-efficacy, which refers to individuals' beliefs in their capabilities to perform tasks. Competent trainers can enhance trainees' self-efficacy by

providing encouragement, support, and demonstrating mastery in the subject matter. Higher self-efficacy levels are associated with better learning outcomes and skill development. In summary, Social Learning Theory offers a theoretical framework to understand how trainers' competence in subject content influences the acquisition of skills among trainees in TVET settings. By emphasizing observational learning, modeling, reinforcement, and the social context of learning, this theory highlights the importance of competent trainers in facilitating effective skill development and learning experiences for trainees in Bungoma County, Kenya (Bandura, 2015).

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3. RESEARCH METHODOLOGY

3.1 Introduction

Methodology can be defined as the way of thinking about and studying social phenomena (Corbin & Strauss, 2008). Elaborating on this definition, Henning *et al*., (2004) emphasize that research methodology is about the various ways of bringing meaning to our world so as to improve our understanding of it. This chapter covers the research methodology. It captures the research design, study location, the target population, sampling procedures, sampling techniques and sample size. Data collection instruments, data collection procedures, validity and reliability of the research instruments, data analysis procedures and ethical issues are also considered under this chapter.

3.2 Research Design

The research design refers to the overall strategy that one chooses to integrate the different components of the study in a coherent and logical way, thereby, ensuring how you would effectively address the research problem; it constitutes the blueprint for the collection, measurement, and analysis of data Creswell *et al*., (2007). Following the same line of thought is (Coll & Chapman, 2000), who refers to research design as a plan or strategy for conducting research; as such it includes various aspects ranging from the selection of participants to the analysis of the data obtained.

The study adopted descriptive survey research design. According to Nwagu, (2005) a descriptive survey research design is used to collect data from well-defined population or systematically selected segment of the population for the purpose of determining and identifying the attributes and characteristics of the population of the study. The design has been considered suitable because the study would determine the Technical Trainers' competence and skills acquisition among Technical Trainees in Bungoma County, Kenya. The researcher also used the design to determine the prevailing conditions or needs of the Technology Education program and provide insight on which the desired decisions were based, in aiming to help improve the training.

2.3 The Study area

This study was conducted in Technical Training Colleges in Bungoma County, Kenya. The study area comprises of nine (9) sub-counties. Findings from a study by county innovation challenge fund (G.O.K 2016) show that Bungoma County covers an area of 3,032.2 sq. km, it has a population of 1,847,063 people, Bungoma County is located in Western Kenya and runs along the Kenya –Uganda border. The county borders Busia, Kakamega and Trans Nzoia Counties. Agriculture is the main economic activity in the county with sugar cane and maize farming being major crops. According to the national geospatial-intelligence agency (2012), Bungoma has latitude in degrees, minutes, and seconds of 00^{0} 45^{1} 00^{11} N and longitude in degrees, minutes and seconds of 34^{0} 35^{1} 00^{11} According to department of youth training, Bungoma County has 79 Youth Polytechnics, 3 Technical Training colleges and 1 college of Science and Technology. Figure 3.1 shows the map of Bungoma County.

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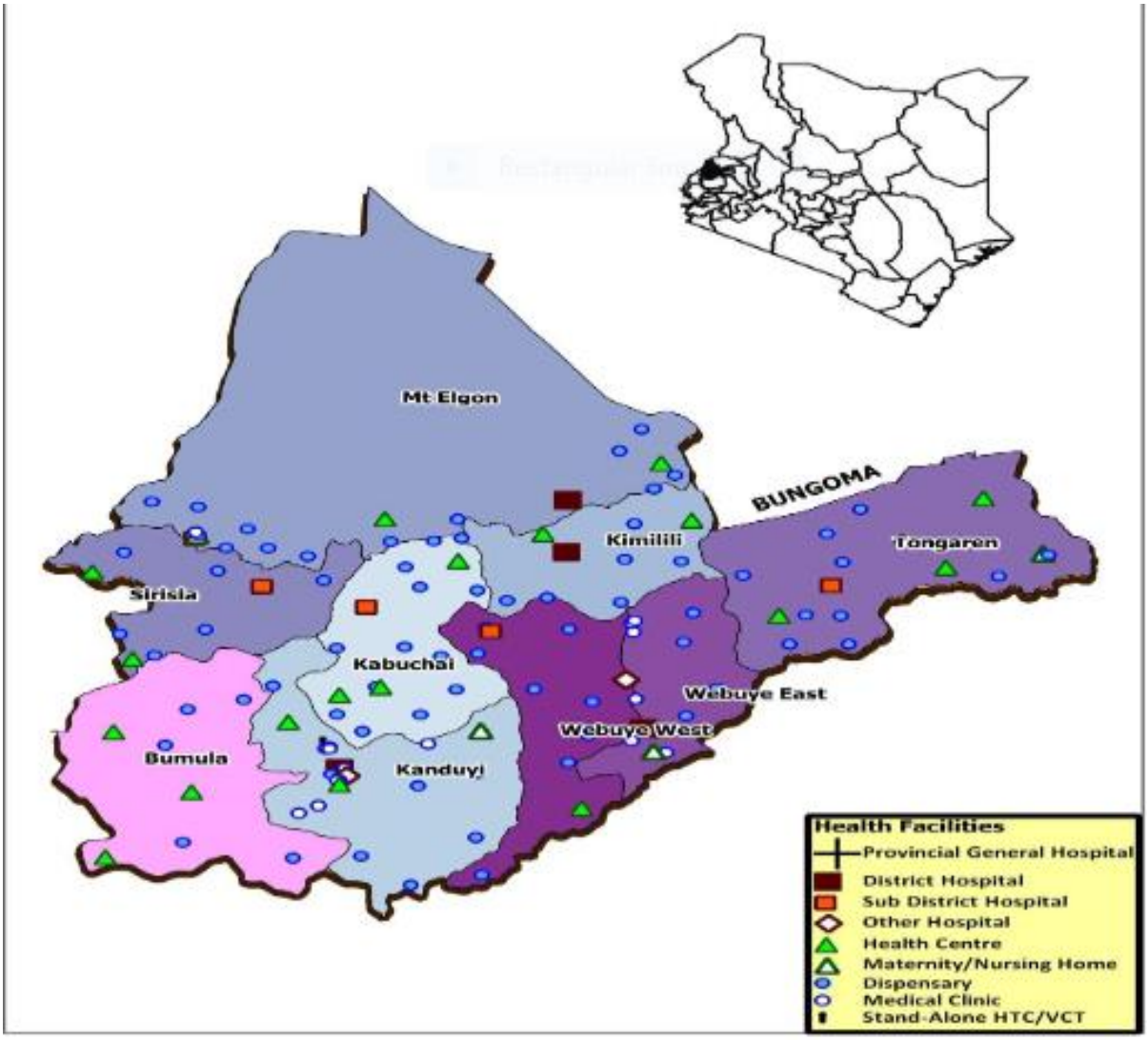


Figure 3.1 Map of Bungoma County.

3.4 Target Population

Target population is defined as all the members of a real or hypothetical set of people, events or objects to which a researcher wishes to generalize the results of the research study (Gall & Borg, 1989). Population is a group of individuals that display one or more characteristics in common and that are of interest to the researcher (Shahzadi et al., 2018). The target population in the current study comprised of 400 TVET Trainers and 800 Trainees.

This is shown in table 3.1 below.

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Table 3.1: Target Population

S/no.	Strata	Target Population
1.	TVET Trainers	400
2.	TVET Trainees	800
4.	TVET college Principals	85
Total		1285

3.5 Sampling Techniques

According to Amin *et al*., (2007), a Sampling Technique is a plan specifying how the sample was drawn from the target population. This study adopted stratified, simple random and purposive sampling techniques. Technical and Vocational Colleges were selected using stratified random sampling to ensure representation from each cadre of the strata. The strata were composed of Technical and Vocational Colleges, Institutes of Science and Technology, Vocational Training Centers (Former Youth Polytechnics). Principals, Heads of department and Trainees were selected using purposive sampling technique, so as to cater for the different categories of Institution as stated above. Purposive sampling requires access to key informants in the field who can help in identifying information rich cases (Suri, 2011). For Institutes of Science and Technology, Technical Training Institutes purposive sampling was done because Bungoma County had only one known Institute of Science and Technology and six Technical and Vocational Colleges (TVC) at the time of the study. One principal and one head of department were picked per Institute. The principal was picked because the Institute Principal is the central factor determining skills acquisition in the Institutions (Lydia & Nasongo, 2009), and the head of department was in charge of the practical sessions and the department in the colleges. The Trainers and the Trainees in Technical and Vocational Colleges were obtained using stratified Sampling Techniques to ensure equal representation of Males and Females.

3.6 Sample size

Sampling means selecting a given number of subjects from a defined population as representative of that population. According Mugenda & Mugenda, (2003), a sample size of 10%-30% of the target population is sufficient to form a study. Therefore, the sample in this study was made up of four hundred (400) Trainers and eight hundred (800) Trainees. Table 3.2 shows the summary of the participants who took part in the study.

Table 3.2: Sample size of Respondents

S/NO.	Respondents	Target Population	Sample size	%
1.	Trainers	400	80	20
2.	Trainees	800	200	25
Total		1200	280	

Source: Field Data (2023)

Information in Table 3.2 shows varied percentages in the sampling. This was according to Mugenda and Mugenda (2003), who discussed that a sample size of 10%- 30% of the target population is sufficient to form a study. Therefore, 25% of the total number of Trainees was 200, while 20% of Trainers were 80. This is within a sample size range of 10%-30%. (Ahmed et al., 2022), noted that the trainers to trainee's ratio is always low, as a result of the small nature of the population of the heads of department and principals, the entire population of 85(100%) was used respectively. The principals were picked because they are involved in the recruitment and management of Trainers. The head of department was picked because they are the central factor determining skills acquisition among Trainees' and the trainer is in charge of practical session's implementation. The Trainees were picked because they are literate and able to interrogate the items.

3.7 Data Collection Instruments

Research tool is a specific mechanism or strategy the researcher uses to collect, manipulate, or interpret data, Leedy & Ormrod (2015). They were constructed based on the nature of the data to be collected as well as the objectives of the study.

The study used questionnaires, Focused Group Discussions (FGDs) and Interview schedules to collect data. The instruments that were used to collect data are described in the sections that follow.

3.7.1 Questionnaire

The questionnaire is a carefully designed instrument for collecting data in accordance with the specifications of the research questions and hypothesis, Amin *et al*., (2007). According to Ashbaugh *et al*., (2004), questionnaire is used to collect basic descriptive information from a broad sample. Questionnaire method was preferred to other instruments because it deemed advantageous to both the researcher and the respondent.

Two sets of questionnaires were used for data collection. The questionnaires used were Trainee Skill Acquisition Questionnaire (TSAQ) and Trainers Competence Questionnaire (TCQ). The TSAQ was used to collect data from Trainees. The questionnaire was divided into four sections. Section A asked the respondents to provide their demographic information such as gender and age. Section B asked the respondent to give their opinion on the trainer's pedagogical competence.

Twenty (20) items were used to measure the trainer's pedagogical competence. Each item was scored on a five-point Likert scale where;

1= very little extent,

2= Little extent,

3= Somewhat extent,

4 = Large extent

5= Very large extent.

Section C of the trainee's questionnaire requested the respondent to rate the trainer's competence in subject knowledge competence. This section contained eleven items each scored on a five-point Likert scale where;

1= very little extent,
2= Little extent,
3= Somewhat extent,
4 = Large extent
5= Very large extent.

Section D of the trainee's questionnaire sought to gain information of the trainee's skills acquisition. The section contained five items that were used to measure the extent to which Trainees have gained specific skills. Each of the five items were also scored on a five-point Likert scale where; **1= very little extent, 2= Little extent, 3= Somewhat extent, 4 = Large extent and 5= Very** large extent.

The TCQ had four sections. Section A was used to collect demographic information of the trainer. Section B asked the trainer to give own assessment of pedagogical competence. Twenty (20) items were used to measure the trainer's pedagogical competence. Each item was scored on a five-point Likert scale where; **1= very little extent, 2= Little extent, 3= Somewhat extent, 4 = Large extent and 5= Very** large extent.

Section C of the TCAQ requested the respondent to rate her or his own competence in subject knowledge competence. The section contained eleven items each scored on a five-point Likert scale where; **1= very little extent, 2= Little extent, 3= Somewhat extent, 4 = Large extent and 5= Very** large extent. Section D of the trainee's questionnaire sought to gain information of the trainee's skills acquisition. The section contained five items that were used to measure the extent to which Trainees have gained specific skills. Each of the five items were also scored on a five point Likert scale where; **1= very little extent, 2= Little extent, 3= Somewhat extent, 4 = Large extent and 5= Very** large extent

2.7.2 Focused Group Discussion Form

Focused group discussion (FGD) was used to collect qualitative data from both the Trainees and the Trainers. The membership of the FGD consisted of participants representing gender. In addition, the FGD allowed the study to gather information on a wide range of issues and concerns facing the Trainees and Trainers in Technical and Vocational Education and Training in Bungoma County.

3.8 Pilot Study

According to Chatzitheochari *et al.*, (2018), the most common error in doing research is not to conduct a pilot study. In reality, a pilot study can be regarded as a small-scale trial run of all the aspects planned for use in the main enquiry. According to UNESCO, (2005), the purpose of piloting is to assess whether a questionnaire has been designed and in a manner that would elicit the required information from targeted respondents, enabling weakness in the questionnaire such as ambiguities in the phrasing of questions, excessive complexity in the language used, inappropriate responses on categories for some questions and redundant questions are discarded. It also involves assessing whether items can be understood by the respondents, that the items are pitched at the appropriate level of complexity and provide a stable measure of respondents' ability.

To check for the validity and reliability of the study instruments, a pilot study was conducted out involving Principals', Trainers and Trainees' drawn from Technical Training Institutions outside the study area. Pre-testing the measurement instrument is a critical component of minimizing measurement errors in a survey research, Boateng *et al*., (2018). This process helps to determine internal consistency as well as to get feedback on issues such as language clarity in the interview schedules and questionnaires, the time it would take to fill the questionnaires and adequacy of the provided space.

3.9 Validity of the Research Instruments

In order to reduce the risk of obtaining incorrect answers to research questions, emphasis on two particular research aspects was considered namely, validity and reliability, Saunders *et al*., (2009).

Validity is the ability of a chosen instrument to measure what it is supposed to measure. (Mugenda & Mugenda, 2003) explain validity as the degree to which results obtained from analysis of data, represent the phenomenon under the study. For content and concurrent variables validity the researcher involved the supervisors' and experienced researchers in the department of educational planning and management to ensure the instruments bring out valid data.

For construct validity, the Validators thus the experts and colleagues, were requested to check the items for clarity and to ensure that each item of the instrument elicited the right responses from the respondents which are based on the study objective. The inputs of the experts and colleagues was used to adjust and update the instruments before they are administered to the respondents.

3.10 Reliability of the Instruments

Reliability of an instrument can be thought of as consistency. It shows whether the instrument consistently measures what it is intended to measure. It is recommended that before an instrument is used in the actual study, one has to determine its reliability. The study used test-retest method

to ascertained the reliability of certain sections of the Trainers' questionnaire and trainee's questionnaires.

Section B of the trainee's questionnaire had twenty (20) items which were used to measure trainer's pedagogical competence. On a scale of 1-5, where 1; = very little extent, 2= little extent, 3= somewhat extent, 4= large extent and 5 = very large extent, respondents were asked to give their opinion on trainer's pedagogical competence. The Cronbach Reliability Coefficient for this section of the Trainee's Questionnaire was 0.678. This was considered good enough.

Section C of the trainee's questionnaire had eleven items that were used to measure trainer's competence in subject content. On a scale of 1-5, where 1; = very little extent, 2= little extent, 3= somewhat extent, 4= large extent and 5 = very large extent, respondents were asked to give their opinion on trainer's competence in subject content. The reliability of this section of the Trainee's Questionnaire yielded a Cronbach Reliability Coefficient of 0.816. This was considered quite good.

Section D of the trainee's questionnaire yielded a reliability coefficient of 0.766. This section sought to determine the trainee's skills acquisition. The reliability of the items in section D of the Trainee's Questionnaire yielded a Cronbach Reliability Coefficient of 0.767. Apparently, this section reflected the highest reliability of all.

The overall reliability of the trainee's questionnaire was then computed by getting the mean of the coefficients obtained under each section. This yielded an overall reliability coefficient of 0.783. With this result, the study considered the instrument appropriate for use in the actual study.

Sections B, C and D of the trainer's questionnaire was also subjected to test re-test to ascertain its reliability. The three sections had similar questions items as those asked under the Trainee's Questionnaire. Section B, C and D yielded reliability coefficients of 0.693, 0.773 and 0.815 respectively. The overall reliability coefficient for the Trainer's Questionnaire was 0.760. With these results, the study considered the instrument good enough to use in the actual study.

3.11 Ethical Consideration

(Swazey et al., 1993) refers to several crucial issues pertaining to ethical standards that a researcher should consider. Some of these issues essential in this study included informed consent, honesty, voluntary participation, confidentiality, right to privacy, and respecting the participant's time. This study put into consideration at each stage of its implementation ethical issues involved in research as follows:

First, the study obtained an approval letter from the school of Graduate Studies of Kibabii University. The letter was used to seek for a research permit from National Commission for Science, Technology and Innovation (NACOSTI) to conduct the research. The research permit from NACOSTI was then used to get authorization from Bungoma County Commissioner, Bungoma County Director of Technical and Vocational Education (TVET) and Ministry of Education.

Secondly, the study ensured that there was informed consent during data collection. The study ensured that the involvement of participants was voluntary. Prior to their involvement, the potential participants were informed about the purpose of the study, potential risks and benefits. Further to this, all participants were asked to sign an Informed Consent Form. Informed Consent Forms were available both in English and in the relevant local language as appropriate.

Thirdly, the study guaranteed the privacy and confidentiality of the participants' information. The participants were assured that the information provided for the study would be confidential. Thus, anonymity would be carefully observed in reporting the research findings by not disclosing the participants' names and/or identities.

Fourthly, the study ensured that other people's/researcher's ideas such as theories, models and any other information in this study was acknowledged through citations/references. The study also ensured that there was no fabrication and falsification of the information when reporting the study findings.

Lastly, the study ensured that the data collected was precisely recorded through voice recorders and notebooks, after obtaining the consent of the participants. The recorded information was safely kept and processed until the production of the generation of the final study report, and later archived.

3.12 Data Analysis procedure

Quantitative data that was collected for the purpose of the study was first coded, sorted and cleaned for completeness and accuracy of information. After coding the data was then transferred into an excel work sheet for preliminary analysis. Thereafter, the data was exported into SPSS version 25 for further analysis. Using SPSS version 25 software, the data was analyzed in two stages. The first stage involved descriptive analysis which included; frequencies and percentages, mean, standard deviations and standard error of the mean. The purpose of the descriptive analysis was to assist the study to gain the general trends of the data sets and prepare the data for advanced analysis. The second stage of analysis was carried out using inferential statistics. The purpose of the inferential analysis was to assist the study to address the objectives of the study and to test the hypothesis. At this stage, the study used various inferential techniques for analysis. The analysis involved the use of independent sample t-test, Pearson correlation coefficient, ANOVA and Chi-Square tests.

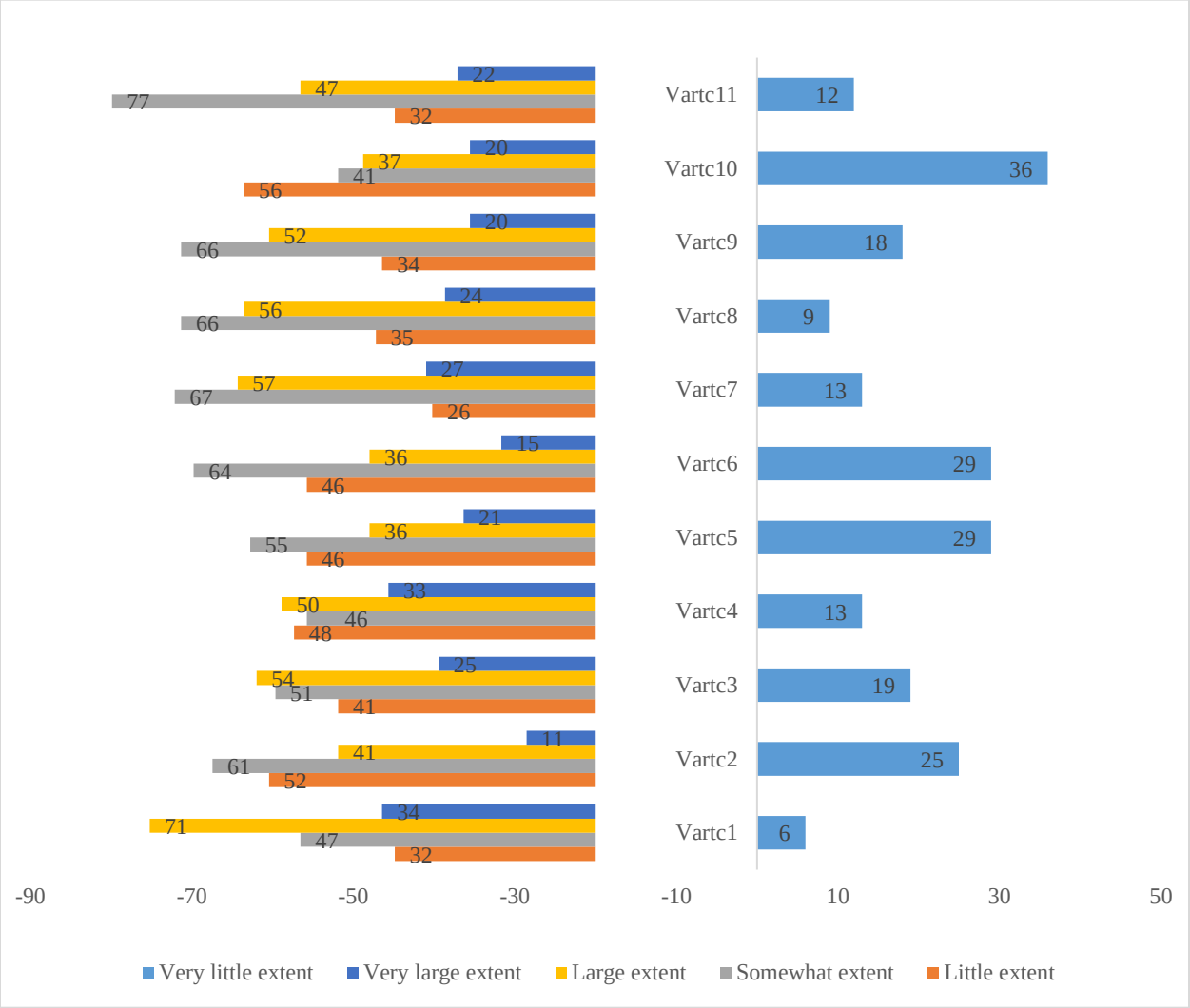
4. DATA PRESENTATION, INTERPRETATION AND DISCUSSION OF FINDINGS

4.1 Extent of TVET Trainers' competence in knowledge of subject content.

The study sought to establish the extent of TVET Trainers' competence in knowledge of subject content. The responses gathered from Trainees were analyzed and summarized in form of frequencies and percentages. Figure 4.6 displays the Trainees' responses on Trainers' competence in knowledge of subject content.

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The results presented in Figure 4. 6 reveal that majority of the Trainees 61 (32.1%) reported that Trainers were to somewhat extent knowledgeable of current technologies in their areas of specialization (vartc2). Another 55 (28.9%) of the Trainees were of the view that Trainers had adequate knowledge of Trainees needs (vartc5).

From Figure 4.6, it can also be noted that 64 (33%) of the Trainees felt that TVET Trainers to somewhat extent, could easily relate theoretical concepts to practical aspects (vartc6). 67 (35.3%) and 66 (34.7%) of the Trainees reported that Trainers were somewhat extent competent in adjusting their teaching based on context (vartc7) and could simplify technical concepts to match Trainees needs (vartc8) respectively. In addition, the study found that majority of the Trainees were of the opinion that Trainers could somewhat extent relate classroom content to workshop experiences (vartc9).

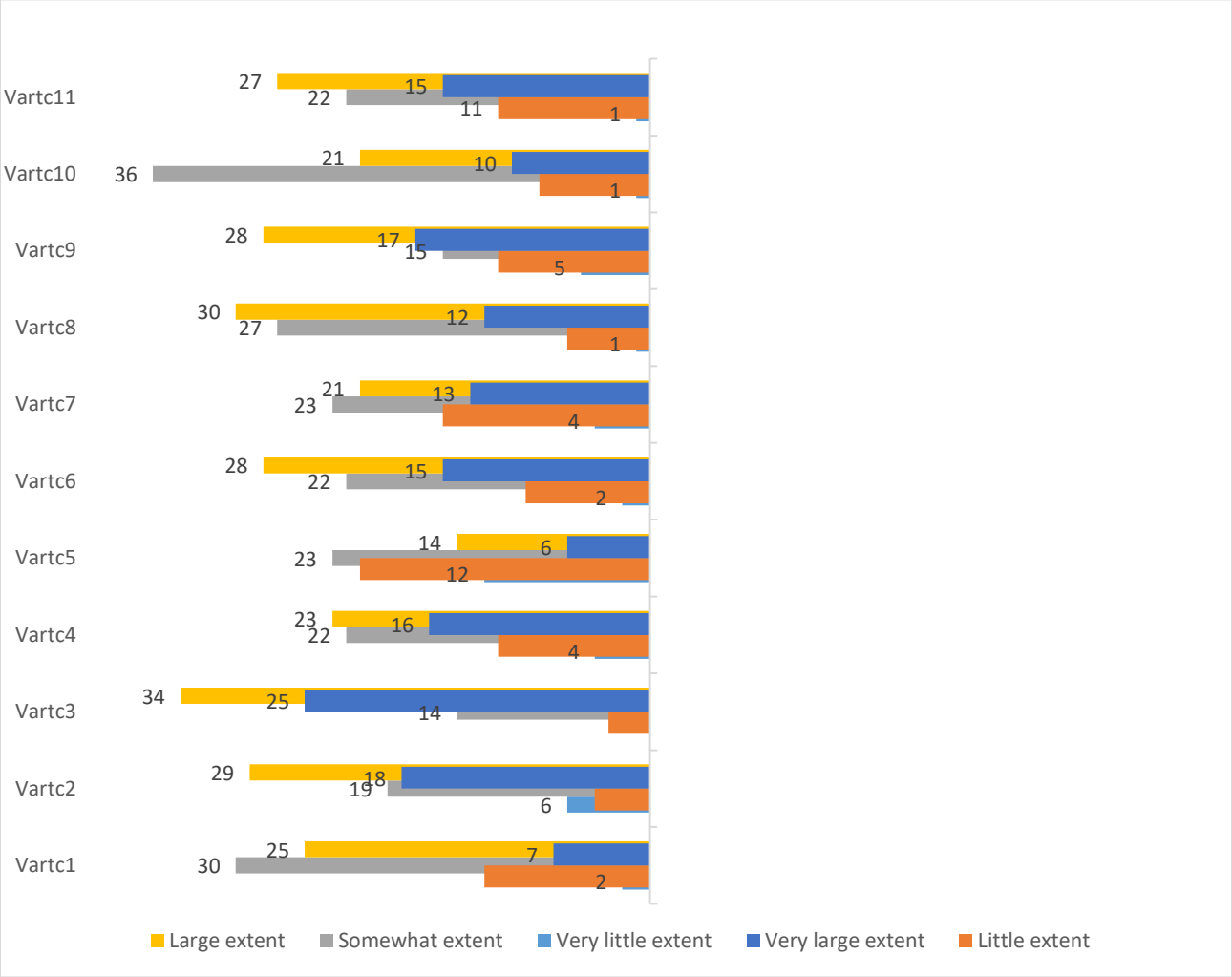
As to whether Trainers had adequate subject content (vartc1), the study found that majority of the Trainees, 71 (37.3%) were affirmative thus reporting that Trainers to a large extent had adequate

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subject content. However, the findings displayed in Figure 4.6 suggest that 36 (18.9%) of the Trainees were of the view that TVET Trainers could design teaching activities to promote learning (vartc10) to a very little extent. This could be interpreted to mean that TVET Trainers were not competent in designing teaching activities that could promote learning.

The study further sought to gain insight of the Trainers own opinion regarding their competence in knowledge of subject content. This was necessary so as to triangulate and validate the data collected from Trainees. Figure 4.6 depicts the responses of the Trainers on how they assessed their own competence in knowledge of subject content.



The results presented in Figure 4.4 suggest that 36 (47.4%) and 30 (39.5%) of the Trainers were of the opinion that TVET Trainers could somewhat design teaching activities to promote learning (vartc10) and had adequate subject content respectively. 25 (32.9%) of the Trainers reported that they were knowledgeable of competent based assessments (vartc3) to a very large extent.

From the results shown in Figure 4.4, the study also revealed that trainer's competence was to a very large extent four other aspects namely; subject content (vartc1), adjusting their teaching based

on context (vartc7), relating subject content to skills required in the job market (vartc4) and knowledge of current technologies in their areas of specialization (vartc2).

As a way of checking whether the respondents had provided reliable information, the study computed an independent samples t- test to determine whether there was a statistically significant difference in the responses provided by the Trainers and Trainees concerning trainer's competence in knowledge of subject content. To achieve this, the Trainees and trainer's responses on the eleven items that had been used to measure Trainers' competence in knowledge of subject content were collapsed into single numerical values for each group of respondents. This was done using the Transform>Compute Variable>Statistical>Median SPSS syntax.

Table 4.1 presents the overall rating for Trainer's competence in knowledge of subject content

		N	Mean	SD	SE
Overall rating of Trainers competence in knowledge of subject content	Trainee	190	2.74	0.923	0.067
	Trainer	76	2.66	1.312	0.150

Source: Field Data (2022)

The findings displayed in Table 4.4 indicate that the Trainees rated Trainers' competence in knowledge competence at M= 2.74; SD= 0.923 while the Trainers rated themselves at M= 2.66; SD= 1.312. On a scale of 1-5, where 1= very little extent, 2= little extent, 3= somewhat extent, 4= large extent and 5 = very large extent, the findings can be construed to mean that overall, both Trainers and Trainees agreed that TVET Trainers in Bungoma County were somewhat competent in knowledge of subject content. This also agreed with (Kigwilu & Githinji, 2015), who revealed that Trainer qualifications, teaching experience and Trainer motivation have a high influence on the implementation of Artisan and Craft curriculum.

The relationship between Trainers 'competence in knowledge of subject content and acquisition of skills.

The fourth objective sought to establish the relationship between TVET Trainers' competence in knowledge of subject content and acquisition of skills among Trainees in Bungoma County. Pearson Product moment coefficient was used to determine the strength of the correlation at $\alpha = 0.05$. The second phase involved a regression analysis to establish the effect of the independent variable. The study found out of the eleven variables that were used to measure trainer's competence in knowledge of content, six variables were statistically associated with the dependent variables (VarD). The study revealed that the strongest positive correlation existed between variable labelled vartc1, [Trainers have adequate subject content] and acquisition of skills among Trainees (VarD) [r= 0.724, p<0.000). Other variables that were positively correlated with the dependent variable were; Trainers are knowledgeable of current technologies in their areas of specialization (vartc2) [0.581, p<0.000], Trainers are knowledgeable of competent based assessments (vartc3) [0.690, p<0.000] and, Trainers relate subject content to skills required in the job market (vartc4) [0.332]. The study therefore subjected the independent variables that were statistically correlated into a simple multiple regression.

The hypothesis being tested was;

H02: There is no statistically significant relationship between TVET Trainers' competence in knowledge of subject content and acquisition of skills among Technical Trainees in Bungoma County

The study found that the multiple regression model with all the nine independent variables that were statistical correlated with the outcome variable produced an adjusted R-Square of 0.11, $F(7,68) = 1.224$, $p<0.05$. The coefficient results presented in Table 4.11 suggest that variables vartc1, vartc2 vartc4 and vartc11 were statistically significant at $p<0.05$. Otherwise, other variables namely vartc3 and vartc7 were not statistically, $p>0.05$. This means that the two variables were no more useful when fitted into the model. Hence the two variables had no contribution towards acquisition of skills among Trainees.

5. SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary

The study sought to examine the Trainers' competence and acquisition of skills among Trainees in Technical and Vocational Education in Bungoma County, Kenya. The specific objectives of the study were to; establish the extent of TVET Trainer's pedagogical competence in Bungoma County, Kenya, examine the extent of TVET Trainers' competence in knowledge of subject content in Bungoma County, Kenya, determine the relationship between Trainers 'competence in knowledge of subject content and acquisition of skills among Trainees in TVET in Bungoma County, Kenya; ascertain the relationship between Trainers' pedagogical competence and acquisition of skills among Trainees in TVET in Bungoma County, Kenya and establish the challenges facing provision of Technical and Vocational Education and Training in Bungoma County.

5.2 Conclusions of the study

Based on the findings of the study it was concluded that;

Trainers could develop Trainees critical thinking skills to a little extent

5.3 Recommendations

The researcher recommended that provision of specialized training for trainers in their respective fields to ensure they have a solid understanding of the subject matter they are teaching. This could involve collaborations with industry experts or higher education institutions to deliver advanced subject-specific training.

Establish mechanisms for assessing the competence of TVET trainers in both subject content and instructional skills. This could involve regular evaluations, peer reviews, or performance assessments to ensure trainers meet the required standards.

Ensure trainers have access to adequate resources and support to enhance their subject knowledge and instructional abilities. This could include access to updated curriculum materials, textbooks, technology, and mentorship programs.

Encourage collaboration and networking among TVET trainers within Bungoma County and beyond. This can facilitate knowledge sharing, peer learning, and the exchange of best practices to improve both subject content knowledge and teaching skills.

Ensure that the subject content taught by trainers is aligned with the current needs of industries in Bungoma County and the broader Kenyan context. This may involve regular consultations with industry stakeholders to identify skill gaps and adjust training programs accordingly.

Emphasize hands-on learning and practical application of skills in TVET programs. Trainers should not only possess theoretical knowledge but also be able to effectively demonstrate and facilitate the application of skills in real-world contexts.

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