UNIVERSITY FOR DEVELOPMENT STUDIES

EFFECTS OF TRAINING IN IMPROVING JUNIOR STAFF PERFORMANCE IN TAMALE TECHNICAL UNIVERSITY IN THE SAGNERIGU MUNICIPALITY

LATIF OSMAN

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JANUARY, 2025

DECLARATION

Student

I hereby declare that this thesis is the result of my original work and that no part of it has been presented for another degree in this University or elsewhere.

Candidate:

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Supervisor

I hereby declare that the preparation and presentation of the thesis was supervised following the guidelines on supervision of thesis laid down by the University for Development Studies.

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ABSTRACT

This study examines the effects of training in improving junior staff performance in Tamale Technical University (TaTU). The study employed a quantitative research design. The sampling strategy used was stratified random sampling. This approach involved dividing the junior staff population into different strata based on relevant characteristics such as department, job role, and experience level. A random sample was then drawn from each stratum to ensure representation across these categories. A total of 268 junior staff members were surveyed. A questionnaire was designed to capture data on various training factors related to staff performance metrics such as productivity, attendance, and work quality. The data collected through the questionnaires were analyzed using regression analysis. Training needs assessment was found to have a positive impact on training outcomes. Training design shows a positive but not significant relationship with training outcomes. Training delivery style has a negative impact on training outcomes. Training evaluation has a small positive impact on training outcomes, but this effect is not statistically significant. These findings provide insights into the relative importance of various training factors in influencing performance outcomes at TaTU. It is recommended that the HR Department and Training Coordinators of TaTU conduct comprehensive and frequent training needs assessments to better identify skill gaps, and design, deliver and evaluate training programmes.

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DEDICATION

This work is dedicated to my family for their unwavering support.

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CHAPTER ONE

1.0 Introduction

This chapter contains background of the study, the problem statement, purpose of the study, research objectives and questions, hypothesis of the study significance of the study, study limitation, delimitation, operational definition of terms and chapter summary.

1.1 Background to the Study

In the fast-paced global business landscape of today, human resources are fundamental and represent the most valuable assets for organizations. As employee performance replaces other measures as the primary determinant of corporate success, the significance of human resources has increased in recent times. Employee performance determines both an organization's successes and its difficulties (Mwena & Gachunga, 2014). Well-trained personnel who can carry out their jobs effectively are essential for effective organizational performance (Devis & Shaik, 2012).

Training is viewed as a brief, methodical procedure that assists non-managerial employees in gaining specific knowledge and abilities for specific tasks (Vidyavihar, 2019). In addition to improving knowledge, training offers networking opportunities (Wang et al., 2021). According to Nassazi (2013), it is a planned event intended to teach new knowledge or abilities, frequently to newly hired or promoted staff members. Formal approaches are used in training to give workers the skills and information they need to do their jobs well (Armstrong, 2020). By aligning employees' skills with job requirements, it helps them modify their behaviours and knowledge. According to Malayu and Hasibuan (2016), training is acknowledged as a highly effective way to improve skills, confidence, capabilities, and competencies in today's knowledge-based economy.

Training programmes and activities are commonly implemented in organizations due to the necessity for high-performing employees to achieve superior organizational outcomes (Hughes et al., 2019). Many organizations strive for high performance, which fundamentally relies on the efforts of their employees. To attain and maintain organizational success, it is essential to envision,

develop, implement, and sustain initiatives led by well-trained staff. Organizations can gain a competitive edge by concentrating on enhancing employee performance (Munteanu, 2015). This necessitates a strategic approach to training that aims to boost employees' capabilities, knowledge, and skills. A successful training strategy must first focus on improving employee performance to achieve organizational goals (Ruttledge & Cathcart, 2019).

Employees are invaluable assets for any organization, contributing significantly to its reputation and profitability (Elnaga & Imran, 2013). Effective employee training plays a critical role in human resource functions and helps organizations meet their objectives (Boxall & Macky, 2009). Beyond enhancing company culture, increasing productivity, and reducing turnover, training also offers networking opportunities and improves performance at individual, team, and organizational levels (Wang et al., 2021). Proper training can enhance the effectiveness of individuals, groups, and the organization as a whole (Jehanzeb & Bashir, 2013).

In the dynamic business landscape, training helps optimize employee potential to achieve desired outcomes (Burhan et al., 2021). It focuses on developing specific knowledge, skills, and techniques necessary for executing predetermined tasks in well-defined job contexts. Training is task-oriented and aims to improve performance in current or future roles. When executed effectively, training can lead to rapid improvements in employee performance (Dessler, 2020).

Training influences organizational performance, income, and competitiveness (Amir & Imran, 2013). This indicates that, among other things, training has a big impact on both individual and organizational performance. Training has received a lot of attention lately due to its importance (Afroz, 2018; Garavan et al., 2020). Numerous studies have shown that training has a favourable impact on company results, such as improved managerial abilities, increased productivity, lower

production costs, increased profitability, and a wider market reach (Kessy & Temu, 2010). A correlation between training and performance was shown by Adeyi and Okere (2018), suggesting that training is essential to the accomplishment of human resource management tasks. Poor performance from employees raises concerns about the efficacy and efficiency of the training that was given. Training is acknowledged as a successful strategy for enhancing human capital, contributing to the development of abilities, competences, skills, and confidence (Malayu & Hasibuan, 2016). Training equips workers with current information pertinent to their positions. This is especially important in rapidly changing industries where being up to date has a direct impact on organizational competitiveness and job effectiveness.

According to Isaac, Herremans, and Kline (2010), human capital includes the expertise, aptitudes, and inventiveness of an organization's workforce, all of which help to generate the important knowledge capital needed for success. Increasing the stock of human capital in a country requires the development of human capital through education. Countries are refocusing their efforts on creating knowledge through research and development (R&D) rather than just manufacturing knowledge-based products in today's knowledge-driven global economy. As a result, countries are placing a greater emphasis on and value higher education institutions, such as technical universities, because of their contribution to the human capital required for knowledge production and dissemination. Technical universities are specialized institutions focused on engineering, technology, and applied sciences. Their role in advancing technological innovation and preparing highly skilled professionals is crucial. Technical universities often adopt distinctive educational models tailored to their focus on practical and applied sciences. Technical universities can improve the human capital that is essential for the development of a country by providing training to its staff. It is critical that these organizations put in place efficient training programmes that give their

employees the know-how, abilities, and skills they need to effectively contribute to the achievement of technical universities' objectives and vision.

It is generally held that technical universities face several challenges, including developing and maintaining well-trained staff who can contribute effectively towards their organizational goals and objectives. A well-trained staff base can help technical universities gain a competitive edge in the education sector by delivering superior services and programmes. Training can lower turnover rates and related hiring expenses by fostering greater work satisfaction and loyalty.

The importance of staff training in technical universities in Ghana cannot be overemphasized given that technical universities play a vital role in technological advancement and education. Despite facing challenges such as funding and curriculum development, they continue to innovate and impact both students and society positively (Amoah et al., 2023). Providing their employees with effective training is essential to raising employee and institution-wide performance. Employee efficiency, motivation, and job happiness are all improved by training, which also gives them the skills and knowledge they need. It is crucial to comprehend how training can improve employee performance as the university strives to meet its strategic goals and uphold its stellar reputation. This research aimed at looking into how training helps junior staff of TaTU perform better.

1.2 Statement of the Problem

As Tamale's technical university, TaTU seeks to equip students for success in the country's modern knowledge-based economy. To maximize the return on human capital investment and improve its capacity for knowledge generation, this goal necessitates continuous training investment. Training is defined in this study as an organized intervention intended to enhance each employee's

performance. Giving staff members the tools they need to achieve their own goals and support TaTU's performance goals is its main goal. According to Elnaga and Imran (2013), this notion is consistent with the idea that training is a process by which human resources develop or hone the skills and abilities required to meet organizational objectives.

Raising performance of junior employees of technical universities like TaTU may be crucial to increasing the efficacy and efficiency of knowledge transmission. Research on how training affects employee performance in Ghana's technical universities has been lacking since they switched from polytechnics to technical universities. Therefore, it appears that little is known about how training affects worker performance in these establishments.

The impact of training on employee development in Ghanaian technical universities is still largely unknown, despite a wealth of study on the subject of training and employee performance. Given that firms operating in complicated market settings tend to have the strongest training programmes, this issue is especially notable (Sahinidis & Bouris, 2008). Organizational performance, according to Hickman and Silva (2018), as referenced in Khalid et al. (2019), is essential to management since companies cannot exist if they are unable to achieve their set goals and objectives. Although there is a perception that training and performance are related, there is not enough actual data about Ghana's technical universities, especially those in the Northern Region, to support the idea that training improves employee performance. Like any other organization, TaTU needs top performers to meet its objectives for developing its human capital and advancing northern Ghana. TaTU's HR experts' methods for determining employee requirements, creating, delivering, and assessing training initiatives to boost worker productivity are unknown.

The purpose of this research is to fill this information gap by studying junior staff, including early-career faculty and administrative personnel, who play a crucial role in the functioning and success of technical universities. Their performance can significantly influence institutional effectiveness, student outcomes, and overall academic excellence. Training programmes can include leadership development components, preparing junior staff for future leadership roles and responsibilities. The performance of junior staff in technical universities is crucial for maintaining the quality of education and research. Effective training programmes can enhance their skills, competencies, and overall performance. However, it has not been fully examined if TaTU's training programmes are successful in raising junior staff members' performance. A number of questions concerning the function of training at TaTU remain unresolved, despite the university's dedication to offering high-quality technical and vocational education.

Junior staff of technical universities face many challenges. There are challenges relating to role clarity, which is fundamental to job performance. According to Rolewicz (2021), junior staff in academic settings often face challenges due to ambiguous role expectations and responsibilities. Effective training can lead to improved job performance and career advancement. However, do trainers at TaTU conduct a thorough needs assessment to tailor training programmes to the specific needs of junior staff? Do they deliver training programmes well? Do they ensure adequate resources are allocated for training, including time, finances, and access to high-quality training materials and facilitators? Do they regularly evaluate the effectiveness of training programmes and make adjustments based on feedback and performance metrics? Do training programmes include leadership development components, preparing junior staff for future leadership roles and responsibilities?

It is argued that it can be challenging to ascertain whether training is accomplishing its goals and improving employee performance if there is no systematic evaluation or structured method for evaluating the efficacy of training programmes. Furthermore, training initiatives may fall short in addressing employees' individual skills and knowledge gaps if the training requirements of junior personnel are not properly evaluated. The training material and the real job requirements may become out of alignment as a result. Additionally, it is thought that training programmes might not be well planned or executed. Staff development and training efficacy might be hampered by problems including out-of-date content, subpar teaching techniques, or a lack of engagement strategies.

Evaluation of training results and follow-up may be insufficient. It is difficult to gauge how training affects performance and make the required programme improvements without thorough evaluation. Junior employees might not be completely motivated or engaged by training programmes. The effectiveness of training and its influence on performance might be diminished by a lack of interest or perceived relevance. The quality and execution of training programmes may be impacted by TaTU's resource constraints, which include time, money, and qualified instructors. It is possible that there are not enough precise measurements or benchmarks to assess how training has improved employee performance. Because of this, it is challenging to evaluate the effectiveness of training programmes and how they affect overall performance.

The aforementioned discussion makes it abundantly evident that, in spite of training's critical significance in organizational success, its effect on employee performance is frequently not systematically evaluated. The effectiveness of training programmes requires empirical data. In order to close this gap, this study looked at how junior staff members' performance at TaTU is impacted by various training components, including needs assessment, design, delivery, and

evaluation. The study offers insights into how training can be adjusted to improve staff performance and support the overall success of the university by examining these dimensions. This study's main challenge was to determine and address the factors influencing how well TaTU training programmes improve junior staff performance. This is because there are not many studies that specifically focus on TaTU. In order to determine how well the training meets staff needs, the study identified difficulties in designing, implementing, and evaluating training and ways to improve the process.

1.3 Objectives of Study

The objective of the study was to investigate the role of training in improving the performance of employees of TaTU. The specific objectives include:

(1) Investigate how training needs assessment affects performance of junior staff at TaTU.

(2) Examine the effect of training design on performance of junior staff at TaTU.

(3) Find out the effect of training delivery style on performance of junior staff at TaTU.

(4) Identify the effect of training evaluation on performance of junior staff at TaTU.

1.4 Research Questions

The study sought to answer the following questions:

(1) How does training needs assessment affect performance of junior staff at TaTU?

(2) What is the effect of training design on performance of junior staff at TaTU?

(3) How does training delivery style affect performance of junior staff at TaTU?

(4) What is the effect of training evaluation on performance of junior staff at TaTU?

1.5 Significance of the Study

The study sought to demonstrate how training affects performance measures. It will benefit many stakeholders; management of TaTU, junior staff, students, and researchers, among others. TaTU's management will be able to create employee training programmes that will improve performance thanks to the found statistical significance. For a number of stakeholders, including the university administration, employees, and the larger academic community, the study on how training affects junior staff performance at TaTU is extremely important. Better training can directly improve junior employees' performance, which will increase university production and efficiency. The study provides evidence-based suggestions that can help HR specialists and university administrators make well-informed choices on the distribution of resources and training plans. This guarantees the best possible results from training efforts. The university can create a more contented and engaged staff and maybe lower turnover rates by attending to training demands and raising the calibre of training. Better training initiatives aid in coordinating employee performance and skill sets with the university's strategic goals. Providing excellent technical and vocational education is the university's objective, and this alignment is essential to fulfilling it.

Other higher educational institutions in northern Ghana and beyond dealing with comparable issues may find the study's conclusions to be a useful resource. TaTU can support the field of technical and vocational education more broadly by exchanging best practices and lessons gained. The study assists in locating and resolving any resource limitations that affect the efficacy of

training. Making the best use of available resources guarantees that training initiatives are both economical and provide the most possible advantages.

1.6 Delimitation of the Study

This study's primary goal was to investigate the effects of training on junior employees' performance at TaTU. It excludes comparisons with other universities or institutions and instead concentrates on this particular one. The study concentrated exclusively on this organization. The study especially looks at how training impacts the performance of junior employees at TaTU. Unless their duties involve training lower people, it does not apply to senior management or administrative personnel. Institutional development and staff enhancement both benefit from the emphasis on junior staff performance and the effects of training.

To guarantee the validity and trustworthiness of the findings, the study used a clearly established approach. The research employed a quantitative methodology to gather data. This includes an explanation of the data collection techniques and research methodology. The study covers four important aspects of training: training needs assessment, which identifies how junior staff members' training needs are identified; training design, which assesses the structure and content of training programmes; training delivery style, which examines the delivery methods and approaches; and training evaluation, which evaluates how the effectiveness of training programmes is measured and reviewed.

The study was carried out from January 2023 to June 2024, a span of six months. TaTU's recent and present training methods are examined in the study. It does not go into further detail on past

training methods than is required to comprehend the current situation. The scope covers all of TaTU's training programmes, including those for vocational training, technical skill improvement, and professional growth. What is not included in TaTU's training initiatives was not covered by the study. The study looked into how training affects junior employee performance indicators like output, effectiveness, and job satisfaction. It excluded other performance indicators that are not closely related to training results. Discussion of the results' relevance to other organizations or environments is not appropriate. Tamale Technical University is the only institution to which the results can be applied. The study includes TaTU's junior employees, training coordinators, and pertinent human resources professionals. Understanding how training affects employee performance requires an awareness of different groups' viewpoints. The goal of the study was to use the results to offer practical suggestions for improving training programmes. It emphasizes doable enhancements that can be applied while staying within the parameters of the university.

1.7 Limitations of the Study

The research exclusively employed a quantitative method, utilizing performance reviews of junior TaTU employees conducted before and after training. This was a limitation since it may the researcher use surveys and performance metrics in the data collection process and measure performance changes using statistical techniques (STATA). The study looked at how training is now conducted and how it affects performance right away. Training's long-term consequences and how training programmes have changed over time are not discussed, which could lead to an omission of the long-term effects of training on performance.

There were restrictions on the resources available to carry out the investigation, including money, time, and access to thorough data. These limitations affected the scope and depth of the study. Therefore, drawing consistent conclusions regarding the overall efficacy of training across various programmes might be difficult due to these limitations. Beyond training, a variety of external factors, including management styles, corporate culture, and individual situations, can affect junior employees' performance. The results were impacted as these outside factors were not fully taken into consideration in the study. The quality and completeness of the data gathered were impacted by respondents' varying levels of survey participation. However, incomplete or low response rates did not reduce the findings' credibility and dependability.

1.8 Organization of the Study

The research is organized into five primary chapters. In Chapter One, the study's background, problem description, aims, research questions, scope, significance, and limits are outlined. Chapter Two provides an overview of pertinent literature on the subject. The research design, study population, sampling strategies, data collection processes, and data analysis techniques are all covered in detail in Chapter Three. The findings and their consequences are presented in Chapter four. In Chapter Five, the results are compiled, conclusions are drawn, suggestions are made, and future research directions are suggested.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

Enhancing employee performance is mostly dependent on training. Organizational behaviour and human resource management have conducted a great deal of study on the impact of training on worker performance. In this review, theoretical frameworks and empirical studies are synthesized to identify variables that affect the link between training and employee performance. Examining the most recent studies, the researcher focuses on training design, delivery methods, assessment of training needs, and training evaluation. The creation of a conceptual framework was aided by reviews of theoretical and empirical research.

2.1 Theoretical Framework

The foundation of the study is the human capital theory and the resource-based perspective (RBV). Both Human Capital Theory (HCT) and the Resource-Based View (RBV) offer a solid theoretical framework for evaluating the impact of training on junior staff performance. HCT highlights training as a strategic investment that enhances employee productivity, while RBV considers training a valuable internal resource that strengthens an organization's competitive edge. By integrating these perspectives, the study effectively analysed how training programmes contribute to improving the performance of junior staff at Tamale Technical University.

Information on the use of these theories in the context of human resource training in developing nations, like Ghana is lacking. Using these theories in this study offers a framework for comprehending how training affects performance in the context of developing country HEI.

2.1.1 Resource Based View

Concepts and theories from larger strategic literature have been adopted as a result of the move in Human Resource Management (HRM) from a traditional to a strategic focus, known as Strategic Human Resource Management (SHRM) (Allen & Wright, 2006). The organization's Resource-Based View (RBV) is one such idea. The integration of SHRM with RBV has been fuelled by the growing realization that a company's internal resources can yield a competitive advantage (Wright et al., 2001). A valuable, uncommon, hard to replicate, and non-substitutable internal resource can give a company a long-term competitive advantage, according to RBV, a well-known theory of competitiveness (Barney, Wright & Ketchen, 2001).

RBV is founded on two fundamental ideas. The first is that different organizations have different and unequal resource endowments, which causes disparities in performance. The second concept is that an organization can sustain a competitive advantage by having better resources and capabilities. When resources and competencies are hard to copy and when market failures happen, this advantage is shielded from rivals (Priem & Butler, 2001).

According to RBV, organizational resources have to fulfil four basic requirements: they have to add value to the company, stand out from the competition, be hard to duplicate, and not be readily replaced by other resources (Priem & Butler, 2001). This viewpoint holds that a business can gain a competitive edge by improving internal capabilities, such as control systems, and the abilities, know-how, and conduct of its human resources. Human resources' strategic function and how it

affects organizational performance have received a lot of attention lately. HR is essential to success and is in charge of improving organizational effectiveness (Boxall & Macky 1996).

RBV has had a significant impact on HRM's strategic facets (Barney et al., 2001). It has also clarified how HRM contributes to a firm's success, which has helped to theoretically correlate HRM and organizational performance (Wright et al., 2001). According to the RBV hypothesis, employees' behaviour, in particular, plays a role in creating a competitive advantage (Pološki & Vidović, 2007) HRM practices are a significant internal element influencing organizational success, according to Sabiu, Tang, and Joarder (2016), because they enable the effective use of an organization's internal resources. The substantial effect that HRM has on organizational performance is supported by research. Karami, Sahebalzamani, and Sarabi (2015) discovered that effective HR procedures, such as training, have a favourable impact on organizational performance.

The Resource-Based View (RBV) theory aligns with the study in several ways:

- Training as a Strategic Resource: The knowledge and skills acquired through training enhance the capabilities of junior staff, turning them into valuable assets for the organization and improving overall performance.
- Competitive Advantage: A well-trained workforce boosts operational efficiency, enabling Tamale Technical University to maintain a strong position in delivering quality technical education.
- Organizational Performance: According to RBV, investing in employee development fosters innovation, enhances service delivery, and strengthens institutional effectiveness.

By applying the RBV framework, this study can examine how training junior staff acts as a strategic internal resource, ultimately improving performance and supporting the university's long-term sustainability.

2.1.2 Human Capital Theory

According to human capital theory, training expenditures improve workers' abilities, which raises their output and effectiveness. An organization's competitiveness is largely determined by its human capital. The Resource-Based View Theory (Wright, Dunford, & Snell, 2001) states that it has a major impact on sustainable competitive advantage. Luo (2000) asserts that the human capital approach considers training to be an investment in human capital. According to Campbell and Kuncel (2002), one of the most widely used interventions for human capital development is training. When the benefits of increased production justify the expenses, training is pursued. Armstrong (2020) views human capital as an organization's most precious asset and emphasizes that investing in people will pay off handsomely. It is the knowledge, skills, and competencies that employees possess. In addition to intellectual capital, which consists of employees' knowledge, creativity, and ability to think critically and make decisions, human capital also comprises the total worth of employees' abilities, knowledge, skills, experiences, and motivation (Mathis & Jackson, 2016).

In the context of studying how training impacts the performance of junior staff at Tamale Technical University, HCT provides a solid theoretical foundation in several key ways:

- Investment in Training: The theory underscores the importance of training junior staff to enhance their competencies, making them more efficient and effective in their roles.

- Improved Performance: As junior staff members acquire new knowledge and skills, they become more proficient in carrying out their responsibilities, contributing to the university's overall operational success.
- Long-Term Organizational Benefits: A well-trained workforce strengthens service delivery and boosts institutional effectiveness over time.

By applying HCT, this study explored how training contributes to the development of human capital at Tamale Technical University, ultimately leading to improved job performance among junior staff.

2.2 Review of Concepts and Key Issues

This section reviews the main concepts covered in the study. The notion of Human Resource Development (HRD) and its training and development components are examined.

2.2.1 Human Resource Development

A part of the management process called human resource management (HRM) is responsible for making sure that an organization's human resources give it a competitive edge (Duke & Udono, 2012). Within HRM, Human Resource Development (HRD) has become a distinct subfield that focuses on employee training and development. The goal of HRD is to equip human resources to support the organization in its ongoing evolution and transformation. HRC gives workers the abilities and information they need to carry out their current jobs more successfully (Noe, 2017). HRD is essential for directing, inspiring, and developing workers' abilities and skills. It entails

organizing and presenting chances for staff members to progress in their careers within the organization (Kurniawan (2012).

According to Cummings and Worley (2014), a business can gain a competitive edge by keeping its HRD practices up to date with changes in the market and organizational structure. By offering learning opportunities and resources for career planning, it supports the professional goals of its employees (Greenhaus, Callanan & Godshalk, 2010). Despite being a relatively new academic discipline, human resource development (HRD) includes a broad range of organizational practices, such as career development, workplace learning, training, learning and development, organizational development, and organizational knowledge. In the last few decades, HRD has significantly changed. Previous views claimed that employee development fell exclusively under the purview of the employer. According to Mankin (2009), organizational learning, individual learning, and lifelong learning are now all included in HRD. Human resource development (HRD) is a strategic approach to training and development that is in line with important organizational initiatives. It incorporates components of human capital theory. In order to improve employees' effectiveness on the job now and position them for future jobs, training is a crucial part of human resources. HRD assists in creating career development strategies and training materials that complement company objectives (Gilley et al., 2009). HRD assists in carrying out development activities and training sessions in accordance with the created plans (Greenhaus et al., 2010).

2.3 Training and Development Conceptualized

Training and development are crucial components of organizational management that attempts to enhance employees' skills and productivity. A methodical procedure intended to enhance workers'

job performance and capacities is called training. Development is a more comprehensive, continuous process that readies workers for more responsibility and career progression (Noe, 2017). While development primarily focuses on preparing individuals for future roles and organizational growth, training usually concentrates on providing employees with the specific skills needed for their current job roles. According to Werner and DeSimone (2012), development is a continual, long-term process that aims to improve workers' general competencies and position them for future jobs. It includes formal education, coaching, and mentorship among others.

In order to close the performance gap between present performance and desired results, training and development are essential HRM activities (Nassazi, 2013). According to Jehanzeb and Bashir (2013), training and development initiatives help businesses attract and retain talent, stand out from the competition, become more reputable as top employers, and increase overall organizational effectiveness. Training and development are integral to organizational success and employee growth. By employing systematic processes and aligning training with organizational goals, companies can enhance employee performance.

The ability of personnel to perform at high levels and adjust to changing job positions is essential to an organization's long-term efficacy and efficiency, making training more and more important. The process of learning and skill acquisition through a variety of methods, including coaching, official and informal education, and planned experiences, is referred to as development. Businesses must spend in training and development if they want to create a staff that is knowledgeable, driven, and involved (Rajasekar & Khan, 2014). According to Truitt (2011), training and development activities are those that are intended to improve workers' performance in their current positions and get them ready for future responsibilities, thus meeting the organization's long-term needs. According to Bala, Aklahyel, and Ibrahim (2014), the main objective of these programmes is to

accomplish both organizational and individual employee goals. As organizational changes cause worker skills to continuously alter, training and development are essential to organizational strategy and essentially help close performance gaps among employees.

Literature demonstrates that competitive advantage and training and development go hand in hand (Divya & Gomathi, 2015; Sabiu et al., 2016). These programmes are essential for helping workers complete jobs quickly and like what they do, which can boost morale and lower attrition (Wahab et al., 2014; Mabindisa, 2013). According to Kiyonaga (2004), companies looking to gain a long-term competitive edge should incorporate training and development into their strategic planning process.

Organizational survival in the contemporary business climate now depends on training and development (Kirkpatrick, 2016). The purpose of these programmes is to improve staff competencies and, consequently, organizational performance. Organizations must consistently spend in the training and development of their human capital due to the competitive nature of today's market (Subedi, 2006). Generally speaking, training programmes are utilized to acquire a higher position within the industry, acknowledge good performance, accomplish corporate goals, and increase performance (Subedi, 2006). Training is an investment in the performance and productivity of the organization as well as in human resources.

2.3.1 Benefits of Training and Development

For an organization to flourish and for employees to be satisfied, training and development are essential. They support increased productivity, contentment at work, and efficacy of the organization. The advantages of training and development are highlighted in this portion of the review, with an emphasis on how feedback improves these results.

Organisations that make training and development investments can acquire a competitive advantage. Effective training programmes strengthen organizational capacities and result in better overall performance (Becker & Gerhart, 1996). Businesses with well-trained staff members are better able to innovate and adjust to market changes faster.

Programmes for employee training and development are intended to increase knowledge and skills, which will improve job performance. Salas, Tannenbaum, Kraiger, and Smith-Jentsch (2012) assert that improved work performance is a direct result of training interventions that are successful. Employees can work more productively and efficiently by learning new skills and knowledge. According to Nassazi (2013): (1) It boosts employees' morale, motivation, and sense of self; (2) It lowers production costs because people can reduce waste; (3) By promoting a sense of stability, it reduces turnover and absenteeism; (4) By providing workers with the necessary abilities to adjust to new and challenging situations, it increases their involvement in the change process; (5) It creates the possibility of recognition, higher pay, and advancement prospects; and (6) It assists the organization in improving the quality and accessibility of its personnel. According to Babna, Langer, Mehra, Gopal, and Gupta (2013), it is crucial to remember that training and development programmes that improve people's skills and talents lead to increased productivity.

Through training and development programmes, employees can get ready for more responsibility as they acquire the skills necessary for both their present and future jobs. One form of training allows workers to progress from apprentices to higher-level positions. Possibilities for growth and training increase job happiness. According to Noe (2017), employees feel more competent and appreciated when they receive proper training, which raises their level of job satisfaction overall. A greater sense of motivation and involvement in their employment can result from this sense of competence.

Retaining employees also involves training and development. Research demonstrates that companies that invest in staff development have reduced employee turnover rates (Kaleberg & Marsden, 2012). Employee retention is higher in companies that provide growth and advancement possibilities.

Collaboration and team relations can be enhanced through training and development. Team-based training programmes improve communication and teamwork, which improves overall team performance and productivity (Salas et al., 2012).

2.4 Training in Focus

Training and the acquisition of new competencies geared toward individual development are included in employee development (Jehanzeb & Bashir, 2013). This idea is more expansive and concentrates on an individual's long-term, holistic development in order to get them ready for tasks and responsibilities in the future (Nassazi, 2013). It entails a methodical and controlled approach over a long period of time, enabling staff and management to acquire knowledge and abilities for wider applications. Employee development goes beyond simply improving performance in their current roles to promote employees' entire growth. Employee development has a forward-looking view, preparing workers for future job demands, whereas training frequently addresses urgent skill gaps and present performance concerns (Bernadin & Russell, 2013). Organizational performance and staff development are closely related; a successful organization needs a good plan for employee development (Burhan et al., 2021).

Human resources planning (HRP) must include employee training and development since it improves individual performance and draws in better talent for the company (Bapna, Langer,

Mehra, Gopal & Gupta, 2013). With the goal of achieving practical application on the job, training entails an intentional effort by the business to give employees the information, skills, abilities, and attitudes needed for their professions (Noe & Hollenbeck, 2019). Through learning processes, it methodically alters behaviour, empowering people to improve their knowledge, abilities, and credentials to carry out their jobs more successfully. Employee and organizational performance are subsequently improved as a result (Khan et al., 2011).

Khan et al. (2016) assert that training facilitates employees' smooth transition to new technologies, boosting productivity and efficiency for both the company and its members. The significance of training is emphasized by Abeeha and Bariha (2012) in deciding who needs training, what programmes and techniques should be employed, and whether the training goals are being achieved. Although formal training is a crucial tool for promoting learning, there are other ways to guarantee that learning takes place (Armstrong, 2014).

2.4.1 Training Methods and Approaches

Training is a carefully thought-out, brief activity designed to transfer particular knowledge, skills, and attitudes (KSAs) relevant to a job. It covers a broad range of topics, such as executive growth, managerial, supervisory, sales, customer service, and interpersonal skills, in addition to required compliance. At every level of a company, training can be implemented. At lower levels, it frequently entails instructing students in particular skills, including operating machinery (Handoko, 2016). The goal of education, on the other hand, is to build broad, generic KSAs that might not be immediately tied to a job. Training and education both use conscious and unconscious learning to help people grow as individuals. Education and training can be divided into three

categories: (1) formal schooling; (2) workplace training, which includes both general and specialized training; and (3) other knowledge acquisition methods.

According to Walters and Rodriguez (2017), training is an investment in organizational personnel that yields advantages for the organization; and according to Zhou and Li (2021), the main result of training is an improvement in staff capacities, which boosts production. Training is essential for businesses and their staff because it increases the organization's knowledge base, encourages the use of cutting-edge technology and innovation, and makes it easier to learn from outside sources. Furthermore, training helps organizations grow and operate more effectively (Rahman et al., 2013) and offers professional assistance in achieving organizational objectives (Haney & Lutters, 2023). According to Idris and Dollard (2011), it also reduces employee turnover and absenteeism. Training investments result in increased motivation (Mansour & Tremblay, 2019), reduced workplace stress (Zadow et al., 2021), improved performance and the closure of skill gaps (Becher & Dollard, 2016). Training improves an employee's adaptability, confidence, thoroughness, motivation, dedication, and loyalty in addition to producing a workforce that is well-trained, effective, and productive (Rahman et al., 2013).

Additionally, training develops self-awareness and self-esteem, increases employees' qualifications and marketability in a competitive labour market, and empowers workers to confidently use new technology (Devi & Shaik, 2012). According to Dearden et al. (2006), the impact of training on productivity development is around five times more than that of pay alone. Different economic returns can be used to quantify the return on investment from training and education (p. 212). According to Redline Group (2024), training shows a company's dedication to its workers by indicating a plan to keep and use their talents throughout time (p. 51). Training is critical to raising employees' levels of knowledge, competence, and skill which in turn raises

production and productivity within the company. Employee investment boosts productivity and benefits the company financially while also providing workers with increased income, more security, and better job opportunities (Nafukho, Hairston & Brooks, 2004).

The usefulness of various training techniques in raising junior staff performance has been investigated. OJT, or on-the-job training, is well known for its hands-on approach, which enables employees to learn in actual work settings. According to a study by Zhang and Huang (2022), on-the-job training (OJT) facilitates the direct application of skills and offers experiences handling real-world problems (Zhang & Huang, 2022). Frequent seminars and workshops are another popular approach. These sessions are helpful in promoting a collaborative learning atmosphere and offering current knowledge, claim Lee and Chen (2021). It is often known that mentoring plays a vital part in professional development. According to Smith et al. (2020), structured mentorship programmes that provide direction and assistance considerably increase junior staff members' job happiness and performance.

2.4.2 Distinction between General and Specific Training

One of the fundamental theoretical concepts in human capital analysis is the differentiation between general and specialized training. Comprehending the differences between these kinds is essential to creating training plans that work and accomplishing organizational objectives. This distinction contributes to the explanation of why workers with highly specialized abilities tend to stay in their jobs longer and are frequently among the last to be let go during recessions. It also becomes clear why internal promotions predominate over external hires.

General training, also known as broad or transferable training, is designed to enhance skills and knowledge that are not tied to a particular job or organizational context. It focuses on developing competencies that can be applied across various roles and industries. For example, general training might cover areas such as leadership skills, communication, problem-solving, or project management. These transferable abilities are useful in a variety of companies and can be rented or temporarily supplied to others, but the original provider retains ownership (Dearden et al., 2006). The abilities gained from this kind of training are transferable, increasing an individual's productivity across several firms. Employees can utilize these skills in different roles or career paths, which can be beneficial for their overall career development.

General training often requires a higher initial investment as it aims to provide broad-based skills. However, it can yield long-term benefits by preparing employees for various roles and career advancement. General training contributes to the employee's overall career development by providing versatile skills that can be applied in multiple contexts. Research indicates that general training can lead to improved overall employee competencies and adaptability. A study by Kalleberg and Marsden (2012) found that general training contributes to employees' career advancement and increases their employability across different sectors.

Specific training, sometimes known as work-specific or targeted training, concentrates on information and abilities that are directly applicable to certain organizational procedures or job responsibilities. This kind of training is designed to satisfy the particular needs of a certain position or function inside the company. Specific training involves knowledge or abilities that are specifically applicable to a specific industry or business.

Training is designed to address specific tasks or technologies relevant to the employee's current job or a particular organizational context. Employees apply the skills learned immediately in their current roles, which can lead to enhanced job performance and efficiency. Specific training typically involves a lower investment in terms of customization but focuses on immediate job performance improvements and operational benefits. It can lead to immediate improvements in job performance and productivity as it enhances employees' ability to perform specific tasks and contribute to organizational goals more effectively in their current roles. A study by Alasmari et al. (2023) demonstrated that specific training has a strong correlation with enhanced task performance and operational efficiency, particularly when it is closely aligned with job requirements.

Most skills usually combine both general and specialized elements, which begs the question of how businesses manage both kinds of training. Both general and specific training play essential roles in organizational development. General training prepares employees for a range of roles and enhances their overall career potential, while specific training focuses on improving performance and efficiency in particular job functions. Balancing both types of training can lead to a well-rounded development strategy that supports both individual career growth and organizational success. There are distinct policy consequences for the investment behaviours linked to general versus specialist training in terms of who should pay for and gain from these investments. While organizations are encouraged to offer targeted training that supports their goals, the public educational system should ideally manage general training because of its wide range of applications. Employees are frequently given both types of training by organizations.

Nassazi (2013) highlighted several approaches to staff training and development. The problem-centred approach concentrates on identifying and resolving performance problems brought on by

a lack of abilities. (1) According to Nassazi (2013), the profile comparison aligns employees' competencies with either new or current job requirements. (2) The official training programmes are scheduled and comprise learning solutions and performance evaluations; they can take place during or after work hours for a predetermined amount of time (Nassazi, 2013). (3) While a person is employed, they receive job rotations, transfers, coaching, and mentorship are all examples of on-the-job training (Nassazi, 2013). (4) Workers who engage in off-the-job training are removed from the workplace to focus on training, which may involve role-playing and conferences (Nassazi, 2013). (5) Peers promote each other's development while a coaching and mentoring strategy builds specific skills linked to task performance and fosters positive relationships (Nassazi, 2013; Elnaga & Imran, 2013). (6) Job rotation and transfers involve switching workers between tasks or locations so they can learn about a variety of operations (Nassazi, 2013). (7) During orientation, new hires are introduced about their jobs, responsibilities, office layout, culture, benefits, technology, and processes (Nassazi, 2013). (8) Presentations on a range of subjects are made to groups during conferences, yet this may not guarantee a thorough comprehension (Nassazi, 2013). (9) Role-playing gives workers stress-free situations to improve their ability to make decisions; this technique is frequently used to build managerial, support, sales, and customer service skills (Nassazi, 2013). (10) Career planning and goal setting assist individuals in managing various phases of their professional lives by determining job priorities and the skills necessary for advancement or specific objectives (Jehanzeb & Bashir, 2013).

2.5 Systematic Approach to Training Process

A systematic approach to training is necessary for businesses to ensure its effectiveness. A systematic training methodology often includes the following steps: determining the training needs, developing the training curriculum, choosing the delivery method, and evaluating the training outcomes (Mathis & Jackson, 2016). According to employees, training is most effective when it is highly motivating, enhances job performance, and fosters a positive work attitude (Balogun, 2011). Armstrong (2014) emphasized that training must be systematic, tailored to specific needs, delivered by qualified instructors, and its outcomes should be carefully evaluated.

According to Mathis and Jackson (2016) and Mondy and Martocchio (2016), a comprehensive training process consists of four crucial steps: identifying the need for training, developing the curriculum, carrying out the instruction, and evaluating the outcomes. By following these steps, organizations can create effective training programmes that meet learning objectives, close performance gaps, and yield the desired results. Continuous evaluation and improvement are necessary to keep training activities effective and relevant.

2.5.1. Training Needs Assessment

The first stage in creating successful training programmes is training needs assessment (TNA). It helps identify gaps between current performance and desired performance. Needs assessment involves: determining what skills, knowledge, or behaviours need to be developed. This can be done through performance reviews, surveys, job analyses, and feedback from managers and employees; and analyse the gap by comparing the current performance level with the desired

performance level to understand the specific gaps that need to be addressed. This involves helps in understanding organizational, job, and individual needs.

Needs analysis is essential for matching organizational objectives with training goals and making sure that resources are distributed efficiently, according to Goldstein and Ford (2002). TNA helps businesses customize their training efforts to meet individual needs by identifying the gap between present and planned performance levels (Goldstein & Ford, 2002).

Training programmes are made more relevant and focused by a well-run TNA, which improves performance outcomes (Goldstein & Ford, 2002). The process of determining the unique needs of employees and ensuring that training programmes are in line with those demands makes training needs assessments (TNAs) extremely important. Studies demonstrate that comprehensive needs assessments support more relevant and focused training interventions, which can ultimately result in enhanced performance outcomes (Goldstein & Ford, 2002).

Training needs assessment can be done in a number of ways, such as through surveys, interviews, job analyses, and performance reviews. Choosing the right level, kind, and length of training is essential at this point because it is driven by unique demands. The diagnostic stage of establishing training goals begins with determining the needs for organizational training. According to Khan and Masrek (2017) and Priyadarshini and Dave (2013), assessing training needs is a strategic process that comprises identifying gaps between the desired future state and the current state, assessing competency data, determining the organization's and industry's goals, and evaluating the data. To ascertain whether training is required, this assessment phase should address performance issues with both employers and employees. According to Mondy and Martocchio (2016), a rigorous approach to evaluate training needs comprises looking at the corporate strategies, strategic

mission, goals, and aims of the organization as well as the consequences of strategic human resource planning organizational structure, and physical work environment also need to be taken into account. Organizations can use this technique to determine whether training is necessary.

Training needs assessment, according to Lussier and Hendon (2020), is the process of comparing present job performance to what is required now or in the future, taking into account the operations and strategic goals of the business. Training requirements analysis often involves three types: organizational analysis, task/job analysis, and person analysis (Lussier & Hendon, 2020; Noe & Hollenbeck, 2019; Hartoyo & Efendy, 2017).

2.5.2. Training Design

Clear and quantifiable training objectives should be established when needs have been recognized, since they serve as a roadmap for the creation of training techniques and material. According to Mager and Pipe (1984), clearly defined objectives help create training programmes that are specifically tailored to address knowledge and skill gaps. Training design consists of: (1) setting goals: creating specific, measurable learning objectives that align with identified needs - SMART stands for specific, measurable, achievable, and time-bound goals; (2) developing training content: the process of creating or selecting the materials that will help achieve the training goals: this could include case studies, e-learning modules, manuals, and presentations; (3) selecting training techniques: selecting the best techniques for the given topic and target audience; and (4) developing assessment strategies: organizing the process for determining the training's efficacy: this could include questionnaires, performance indicators, and pre- and post-training evaluations.

Various learning theories and techniques are incorporated into training design (Mathis & Jackson, 2016). Training design is the process of organizing a programme's content and techniques to enhance application and learning. A requirements assessment informs the design of effective training programmes, which also involve content development, delivery mode selection, and goal setting (Baldwin & Ford, 1988). Relevance and flexibility to the needs of the participants' learning styles and jobs are hallmarks of effective training design. Research shows that training programmes with a strong design have a higher chance of producing favourable performance results (Clark & Mayer, 2016; Noe, 2017).

The audience and learning objectives should be taken into consideration while selecting training techniques. Classroom instruction, online learning, role-playing, and on-the-job training are some of the methods. According to Clark and Mayer (2016), the integration of multimedia learning principles into instructional design can improve its efficacy, particularly in online learning environments.

A well-designed training programme is essential to improving staff performance. Kirkpatrick (1994) asserts that training design entails producing information that is both interesting and pertinent. It includes choosing learning goals, organizing information, and creating teaching resources. According to research by Salas et al. (2012), in order to maximize the effectiveness of training programmes, practical, hands-on experiences must be included. To continuously enhance the training process, a well-designed training programme should also take into account various learning styles and include feedback mechanisms.

Training design is one of the major aspects that research has found to be important in impacting training (Abeeha & Bariha, 2012). In order to improve the transfer of skills from training to the

workplace, a good training design considers the needs of the learners as well as instructional methodologies (Mathis & Jackson, 2016). Training methods include a range of approaches such as instructor-led training, e-learning, case studies, behaviour modelling, role-playing, training games, in-basket training, on-the-job training, and apprenticeships (Mondy & Martoccho, 2016; Noe & Hollenbeck, 2019; Mathis & Jackson, 2016; Lussier & Hendon, 2020; Abu Dagar & Constantinovits, 2021).

Simamora (2015) divided training into various categories. The first is skill training, whose efficacy is evaluated in relation to predetermined goals and concentrates on resolving particular requirements or inadequacies found through evaluations. Retraining is the second kind, which tries to provide workers the abilities they need to adapt to changing work requirements. The third kind of training involves teaching staff members how to carry out duties that are not related to their regular responsibilities. Team management training, the fourth type, is designed for teams, research groups, and temporary task forces working together to accomplish shared goals. Finally, brainstorming sessions and other forms of creativity training help individuals to freely generate ideas and improve their creative abilities.

2.5.3. Training Delivery Style

The effectiveness of training is greatly impacted by the manner and style of delivery. Training Delivery encompasses the methods and approaches used to convey training content to employees. The effectiveness of training delivery significantly impacts the success of the training programme. Research suggests that engaging and interactive delivery methods enhance learning and retention, thus improving training outcomes (Salas, Tannenbaum, Kraiger & Smith-Jentsch, 2012). Effective delivery of training involves selecting qualified trainers, preparing materials, and organizing

sessions. Training delivery should engage participants through interactive and practical exercises. Salas et al. (2015) suggest that training delivery methods should match the content and context to maximize learning outcomes. Engaging participants during training is essential for effective learning. Strategies include interactive activities, discussions, and real-life scenarios.

According to Clark and Mayer (2016), contemporary strategies like e-learning and blended learning are complementing more conventional techniques like lectures and workshops. Interactive and participatory training approaches are more successful than passive ones at involving employees and enhancing their performance, according to studies by Noe et al. (2014). Training could be improved by combining online courses, interactive seminars, and hands-on activities.

The next stage after designing a training programme is to start putting it into practice, claim Mathis and Jackson (2016). To make sure the training properly satisfies the indicated needs, it is typically advised to conduct a pilot test or trial run of the programme. Because it affects how the training affects the learners, the delivery technique is important. The training can be delivered in a variety of ways, utilizing distinct training resources, adult learning principles, and learning styles. Mondy and Martocchio (2016) state that corporate training facilities strive to advance both individual employees and organizational growth by emphasizing company-specific training, employee development, and adult learning concepts. This is how they hope to drive organizational change.

Employees receive training as they work in their actual workplace as part of on-the-job training, or OTJ. The goal is to acquaint workers with the routine tasks associated with their jobs, such as operating machines, handling supplies, and so forth. Employees that receive this kind of training are more equipped to handle issues that may come up at work. It places a strong emphasis on "learning by doing," where trainees pick up skills by watching and imitating the actions of a

supervisor or seasoned colleague who demonstrates tasks. On-the-Job training is a teaching by experienced staff that is directly relevant to the job, which may also include organizing seminars or peer teaching sessions (Anwar & Abdullah, 2021). This approach is frequently less expensive and disruptive because employees continue to work while receiving training, using the same tools and following established standards (Raheja, 2015).

On-the-job training motivates workers, increases their flexibility, and lowers absenteeism (Namusonge, Sakataka, & Nyagechi, 2015). Additionally, it reduces employment turnover, increases worker safety, and develops a workforce that is able to adjust to changing technology.

According to Raheja (2015), off-the-job training entails using external training sites, providing study materials, focusing solely on learning rather than work, and allowing for open discussion. Important off-the-job training methods include lectures, conferences, vestibule training, and sensitivity training. In contrast, off-the-job training occurs outside of the typical work environment and consists of specialized training sessions in a separate location where employees learn skills and techniques relevant to their job roles.

Delivering vast volumes of knowledge to a huge number of people is frequently accomplished through lectures and conferences. Amoah-Mensah and Darkwa (2016), referencing Ahammad (2013), say that these approaches work well for teaching big classes or covering a lot of ground. Although conferences and lectures are frequently used in training programmes, their effectiveness depends on how well they are given and how engaging they are. For the training to be both educational and inspiring, the speaker needs to be extremely knowledgeable. University settings commonly use lectures and seminars.

2.5.4. Training Evaluation

The last phase of a training programme is evaluation, which determines its efficacy by evaluating how well personnel are doing their tasks in light of the training they have received. Training evaluation is the process of evaluating a programme's efficacy to ascertain whether the intended results are achieved. Evaluation measures response, learning, behaviour, and results. Models like Kirkpatrick's Four-Level Training Evaluation Model (Kirkpatrick & Kirkpatrick, 2006) are used to evaluate the efficacy of training programmes. Critical evaluation of the training's effectiveness and potential improvement areas is provided via the Kirkpatrick model (Kirkpatrick & Kirkpatrick, 2016; Holton, 2005). Measuring the effect of training programmes on employee performance involves training evaluation. To evaluate the efficacy of training, many people adopt Kirkpatrick's Four-Level Training Evaluation Model (1994). The concept includes evaluating reaction (trainee satisfaction), learning (knowledge acquisition), behaviour (application of skills on the job), and results (impact on organizational performance). Adding a fifth level return on investment (ROI) provides a holistic perspective of the financial benefits of training. Evaluating these aspects helps in refining training programmes.

Human resource development is seen as an investment with the aim of increasing employee performance to fulfil corporate objectives, and evaluation is commonly understood as assessing how well a programme accomplishes its stated goals (Balogun, 2011). This involves comparing the training outcomes with the pre-training objectives given by managers, trainers, and trainees (Mathis & Jackson, 2016). Evaluation measures the organization's training programme's cost-benefit ratio. Evaluating is important, but it's often forgotten, like the need to brush your teeth after eating. However, assessment is still an essential part of training since it compares the changes that come from training to the predetermined goals (Armstrong, 2014). A number of measures,

such as participant feedback, learning outcomes, behavioural changes, training goal achievement, return on investment, and benchmarking, were outlined by Mondy and Martocchio (2016) as ways to assess training. Reaction, learning, behaviour, and results are the four levels that evaluations normally cover (Lussier & Hendon, 2020; Noe & Hollenbeck, 2019; Dessler, 2020).

Comparing the financial gains from training to its expenses is the process of determining the return on investment, or ROI. Methodologies for measuring ROI are provided by Phillips and Phillips (2007), who emphasize the need of taking into account both direct and indirect effects.

The input from evaluations should be used to regularly analyse and enhance training programmes. Training is kept current and efficient over time by this iterative procedure. It critical it is to use assessment findings to improve and hone training techniques. Based on evaluation findings and new organizational demands, managers or training coordinators must make the required modifications (Gilley et al., 2009).

2.6 Effectiveness of Training Programmes

Training initiatives, which seek to raise performance and skill levels among staff members, are essential to organizational development. The results for individuals and organizations can be greatly impacted by the efficacy of these initiatives. The main study findings about the efficacy of training programmes are reviewed in this section, with an emphasis on various approaches, standards for evaluation, and results. There are several ways to gauge the success of training programmes, including skill development, job satisfaction, and performance improvement.

Employee training programmes are intended to enhance performance, knowledge, and abilities, and a number of studies have shown how effective they are in this regard. The results of staff training might be influenced by various circumstances. Noe, Tews, and Dachner (2013) list a number of important variables, such as the trainee's drive, the training setting, and the supervisors' assistance. According to their findings, workers who receive encouragement and support from their managers are more likely to gain from training initiatives.

Burke and Hutchins (2007) assert that well-designed training initiatives can produce notable enhancements in both organizational and job performance. Training efficacy is influenced by a number of elements, including the training design, delivery mode, and alignment with corporate goals, according to their meta-analysis of training evaluation studies. Brown and Wilson's (2019) study looked at how junior faculty performance was affected by an extensive training programme. The productivity of research and the quality of instruction both significantly improved, according to the results (Brown & Wilson, 2019). Positive results have been reported from training programmes that concentrate on particular abilities, including research procedures or teaching strategies. According to Kim and Park's (2021) report, specific skill development improves performance in research and teaching activities. Another significant result of training is raising job satisfaction. According to a survey conducted by Patel and Sharma (2023), junior staff turnover rates are reduced and job satisfaction is greater in companies with well-designed training programmes.

One popular approach where employees learn skills directly while carrying out their responsibilities is called "on-the-job training" (OJT). Opportunities for practice, regular feedback, and well-defined objectives are all necessary for on-the-job training (OJT) to be successful in

enhancing job performance. According to their meta-analysis, on-the-job training (OJT) can be very helpful in acquiring job-specific skills, but it may not transfer as well for wider competences.

Because of its accessibility and flexibility, e-learning has become more and more popular. According to Clark and Mayer (2016), e-learning that is created with multimedia learning concepts in mind can be just as successful as traditional training. Their study highlights the value of cognitive engagement and interactive components in online learning environments.

Creating realistic environments for learners to practice skills is known as simulation-based training. Salas et al. (2015) point out that by offering realistic and practical experiences, simulations can improve the transfer of skills. However, the simulation's authenticity and its conformance to real-world requirements determine how effective it is. Furthermore, the relevance of training transfer and the significance of creating training programmes that support the transfer of acquired skills to the workplace are highlighted in the work of Salas, Tannenbaum, Kraiger, and Smith-Jentsch (2012). They contend that in order to increase the possibility of a successful transfer, efficient training programmes should incorporate opportunities for skill application, performance evaluation, and follow-up activities.

The Kirkpatrick (1994) model is a well-known paradigm for assessing the efficacy of training. Reaction, learning, conduct, and results are its four levels. The model’s efficacy in evaluating training effects is supported by research by Kraiger, Ford, and Salas (1993), particularly in capturing both instant reactions and long-term consequences.

The ratio of the financial gains from training to its expenses is called return on investment, or ROI. While ROI can offer a quantitative indicator of training efficacy, Phillips and Phillips (2007) contend that it necessitates thorough evaluation of indirect benefits and long-term effects.

Several studies have shown that job performance is improved by training programmes that are effective. A prominent study by Arthur, Bennett, Edens, and Bell (2003) discovered that training has a moderate to substantial impact on work performance after conducting a meta-analysis of training outcomes. According to their research, training regimens that incorporate behavioural as well as cognitive elements typically result in greater performance gains. Employee retention and satisfaction may also be impacted by training initiatives. According to Baldwin and Magjuka's (1991) research, workers who value their training are more likely to be satisfied with their jobs and stick with the company. According to a study by Colquitt, Lepine, and Noe (2000), opportunities for practice and application of newly acquired abilities on the job following training contribute significantly to improved job performance. This emphasizes how crucial it is to make sure that workers get the chance to put what they have learned into practice in the workplace in addition to offering training.

A number of variables, such as the training technique, assessment standards, and degree to which the training is in line with corporate objectives, affect how effective training programmes are. While there are differences in the benefits that OJT, e-learning, and simulations give, their efficacy can be increased by using thorough evaluation models like Kirkpatrick’s and taking ROI into account. All things considered, effectively created training initiatives can greatly enhance work output, worker retention, and satisfaction.

Training increases workers' capacity to complete tasks on the job, which has a favorable impact on productivity (Vokshi, 2020). Training programmes that are well-designed and in line with workplace needs frequently lead to increased productivity because they make it possible for employees to apply what they have learned to their daily work. The benefits of training are as follows: it boosts employee morale, encourages job stability and contentment, raises possibilities of promotion because employees gain efficiency and skills throughout training, making them more valuable assets to the company and eligible for promotions; increased productivity: Employee efficiency and productivity are enhanced by training; skilled workers exhibit both quantity and quality of work. When employees receive the right training, there is less waste of time, money, and resources. An employee's willingness to contribute to the success of the company will increase with his level of satisfaction and morale. The likelihood of an employee having an accident at work decreases with increased training.

2.7 Challenges in Training Implementation

Implementing training is a crucial step in building organizational capabilities and personnel skills that are effective. Despite its significance, a number of obstacles may prevent it from being implemented successfully. This study of the literature examines these issues and provides a thorough summary by referencing a number of sources.

Lack of resources is one of the main issues with training implementation. Programme breadth and quality may be limited by financial constraints. Noe (2017) asserts that budgetary limitations frequently result in subpar training materials and limited access to knowledgeable instructors,

which can compromise the efficacy of training programmes. Insufficient finance, according to Rogers (2020), may limit the creation and implementation of comprehensive training programmes.

The implementation of training can be greatly impacted by employee resistance. Ford, Weissbein, and Pearce (2018) contend that employees who are resistant to new training programmes may be less likely to engage fully or apply what they have learned, leading to lower training effectiveness. It is important to identify and address the reasons behind resistance before attempting to overcome it. Gupta and Singh (2022) discuss strategies to overcome resistance, including staff involvement in the planning process and clear communication of the benefits.

A comprehensive assessment of training needs is the foundation of any successful training programme. But a lot of companies neglect to perform a thorough study of training needs, which results in programmes that are not well focused. Inadequate needs assessments can lead to training that is not in line with employees' real needs or job requirements, which lessens the impact of the training, as noted by Brown and Sitzmann (2019).

For training programmes to be implemented successfully, management support is essential. However, a lot of training programmes fail because organizational leaders do not support them enough. According to Caffarella (2018), supervisors who do not actively encourage or take part in training may see a decline in employee engagement and motivation, which could negatively affect the performance of the programme as a whole.

Assessing the efficacy of training initiatives has a unique set of difficulties. Kirkpatrick and Kirkpatrick (2016) talk about how hard it is to measure the results of training and how crucial it is to use the right assessment models to figure out how training affects worker performance and organizational objectives.

The execution of training is beset with issues, such as a lack of resources, opposition to change, poor needs assessments, a lack of management support, and challenges with evaluation. The successful implementation of training programmes necessitates a strategic approach that includes careful planning, stakeholder engagement, and efficient means of evaluation.

2.8 Improving Employee Training

Employee training is a pivotal aspect of organizational development, influencing both individual performance and overall organizational success. This section of the review examines key strategies and practices for improving employee training, drawing from recent research and theoretical perspectives.

There is the need to enhance training design and delivery. To achieve this, several things can be done, some of which are discussed below.

2.8.1 Instructional Design

Effective training programmes are often characterized by well-developed instructional design. According to Carey (2015), the ADDIE paradigm (Analysis, Design, Development, Implementation, Evaluation) gives an organized way to producing training programmes This model emphasizes the importance of systematically analysing training needs, designing relevant content, developing materials, implementing training, and evaluating its effectiveness.

2.8.2 Active Learning Techniques

Incorporating active learning techniques into training programmes can significantly enhance learning outcomes. Mayer (2004) highlights methods such as simulations, role-playing, and interactive exercises promote deeper engagement and better retention of information compared to passive learning methods like lectures. These techniques help learners apply concepts in practical scenarios, improving their ability to transfer skills to the job.

2.8.3 Technology Integration

The integration of technology in training programmes has gained considerable attention. A study by Salas, Tannenbaum, Kraiger, and Smith-Jentsch (2012) demonstrates that technology-enhanced training methods, including e-learning and virtual reality, offer flexible and immersive learning experiences. Technology can also facilitate remote training, making it accessible to a broader audience and allowing for real-time feedback and assessment.

There is also the need for customization and relevance and this can be achieved by doing the following.

2.8.4 Needs Assessment

Conducting a thorough needs assessment is crucial for tailoring training programmes to address specific skill gaps and organizational goals. Noe (2017) argues that a well-executed needs assessment ensures that training content is relevant and targeted, thereby increasing the likelihood

of achieving desired outcomes. This involves analysing job requirements, employee performance, and organizational objectives.

2.8.5 Personalized Learning

Personalized learning approaches, such as adaptive learning technologies and individualized training paths, are becoming increasingly popular. According to Chen, Wang, and Zheng (2021), personalized learning adapts to the learner's pace, preferences, and prior knowledge, enhancing engagement and effectiveness. Tailoring training to individual needs helps in addressing varying skill levels and learning styles. Blanchard and Thacker (2013) emphasize the importance of incorporating adult learning principles and ensuring that training content is relevant to employees' job roles. They contend that training initiatives that are adapted to the unique requirements of staff members and created with learners' engagement in mind are more likely to provide favourable results.

There is the need for evaluation and feedback. Feedback is a crucial component of effective training and development. Kluger and DeNisi (1996) argue that feedback helps employees understand their performance relative to expectations and provides opportunities for continuous improvement. Regular feedback enables employees to adjust their learning strategies and enhance their skills. Incorporating continuous feedback mechanisms into training programmes can enhance learning and development. According to Kluger and DeNisi (1996), feedback is critical for improving performance and motivation. Regular feedback during and after training sessions help learners understand their progress, adjust their learning strategies, and apply new skills more effectively.

Feedback also plays a significant role in learning and retention. According to Hattie and Timperley (2007), feedback provides learners with specific information about their performance, helping them to correct mistakes and consolidate learning. Effective feedback promotes deeper learning and better retention of skills and knowledge.

Feedback can also impact employee motivation and engagement. Research by Steelman, Levy, and Snell (2004) shows that timely and constructive feedback helps maintain motivation by clarifying goals and expectations. Positive feedback increases the likelihood that workers will be involved and dedicated to their own growth. Organizational support and follow-up are very crucial.

2.8.6 Managerial Support

Support from managers and supervisors plays a significant role in the success of training programmes. Saks and Belcourt (2006) noted that managerial support includes providing encouragement, resources, and opportunities for employees to apply new skills. This support is crucial for reinforcing training and ensuring that learning translates into improved job performance.

2.8.7 Post-Training Follow-Up

Post-training follow-up activities, such as refresher courses and coaching, can help sustain training benefits. A study by Baldwin and Ford (1988) emphasizes the importance of follow-up interventions in facilitating the transfer of training to the workplace. Follow-up activities ensure that skills are continuously applied and refined, contributing to long-term effectiveness.

Improving employee training involves a multifaceted approach that includes effective instructional design, active learning techniques, technology integration, customization, thorough evaluation,

and robust organizational support. By adopting these strategies, organizations can enhance the impact of their training programmes, leading to better employee performance and organizational outcomes.

2.9 Junior Staff Performance in Technical Universities

This section of the literature review examines key factors influencing junior staff performance in technical universities and explores strategies for enhancing their effectiveness. The review covers factors influencing performance, strategies for enhancement, and the impact of various interventions. Junior staff, including early-career faculty and administrative personnel, play a crucial role in the functioning and success of technical universities. Their performance can significantly influence institutional effectiveness, student outcomes, and overall academic excellence. Many key factors influence junior staff performance in technical universities. Some of these are reviewed below.

2.9.1 Role Clarity and Expectations

Role clarity is fundamental to job performance. According to Rolewicz (2021), junior staff in academic settings often face challenges due to ambiguous role expectations and responsibilities. Clear communication of job roles and expectations can improve performance and job satisfaction.

2.9.2 Professional Development

Professional development is a critical factor in enhancing junior staff performance. A study by Jansen, Van der Meer, and Moolenaar (2021) found that ongoing professional development

opportunities, including workshops and training, significantly impact junior staff performance by equipping them with the skills and knowledge needed for their roles.

2.9.3 Mentoring and Support

Positive feedback enhances the possibility that workers will be involved and dedicated to their personal advancement. According to Mazerolle, Eason, and Goodman (2018), mentorship programmes provide guidance, support, and feedback, which are essential for the professional growth of junior staff. Effective mentoring can lead to improved job performance and career advancement.

2.9.4 Structured Onboarding Programmes

Structured onboarding programmes help junior staff acclimate to their roles and the organizational culture. A study by Allen and Shanock (2013) highlighted that well-designed onboarding programmes improve job satisfaction and performance by providing new employees with the necessary tools and information to succeed.

2.9.5 Regular Performance Feedback

Regular and constructive feedback is crucial for performance improvement. According to Kluger and DeNisi (1996), feedback interventions positively influence job performance by helping employees understand their strengths and areas for improvement. Implementing a feedback-rich environment can enhance junior staff performance.

2.9.6 Supportive Work Environment

Creating a supportive work atmosphere is vital for increasing junior staff performance. Research by Rhoades and Eisenberger (2002) suggests that perceived organizational support, including recognition and resources, leads to higher levels of job performance and satisfaction among junior staff.

There are many manifestations of the impact of interventions.

1. Performance-Based Incentives

Performance-based incentives can motivate junior staff and improve performance. A study by Lazear (2000) found that performance-based pay and incentives are effective in enhancing employee productivity and job satisfaction. Implementing such incentives in technical universities can help align staff efforts with institutional objectives.

2. Work-Life Balance Initiatives

Promoting work-life balance is important for maintaining junior staff performance and well-being. According to Greenhaus and Allen (2011), work-life balance initiatives, such as flexible working hours and remote work options, contribute to better job performance and lower stress levels.

3. Career Advancement Opportunities

Providing career advancement opportunities is crucial for motivating junior staff. Research by Kalleberg and Marsden (2012) shows that clear career progression pathways and opportunities for promotion lead to higher job satisfaction and performance. Institutions should offer opportunities for career development to retain and motivate junior staff.

Junior staff performance in technical universities is influenced by various factors, including role clarity, professional development, and support structures. Effective strategies for enhancing performance include structured onboarding, regular feedback, and a supportive work environment. Implementing performance-based incentives, work-life balance initiatives, and career advancement opportunities can further improve junior staff performance and satisfaction. By addressing these factors and strategies, technical universities can foster a productive and motivated junior staff cohort.

2.10 Employee Performance

According to Safitri and Lathifah (2019), employee performance is the accomplishment of certain, well-defined tasks inside an organization that are assessed in relation to well-defined goals and objectives. Performance management is a continuous activity that aims to improve performance by establishing team and individual goals that complement the organization's strategic objectives, claims Armstrong (2020). This process includes planning to achieve these goals, monitoring and assessing progress, and developing employees' skills and abilities (Armstrong, 2020). According to Aidan (2013) and Armstrong (2020), productivity, efficiency, effectiveness, quality, and profitability are important performance criteria. When new technologies are used effectively and people are engaged, production can typically improve (Al-Omari et al., 2020). In order to assess employee contributions and promote organizational success, managers frequently set high performance requirements (Buchanan & Badham, 2020).

According to Nassazi (2013), employee performance describes how people accomplish goals pertaining to procedures, outcomes, relevance, and success. According to Arinanye (2015), work

attendance, quality, productivity, efficiency, and effectiveness are the key indicators of success. It includes the complete completion of particular activities, assessed in relation to predetermined benchmarks for precision, expense, and timeliness. It also indicates a calculated strategy for raising employee performance in order to increase organizational effectiveness. When all employees focus on learning the skills necessary to accomplish goals with the least amount of time and resources while following the organization's standards, organizational performance is achieved.

2.10.1 Factors Impacting Performance

A variety of factors can impact employee performance, just like training and development. Arinanye (2015) lists potential influences such as organizational norms and standards, roles and responsibilities, personal issues, and the attitudes of leaders. Asim (2013) adds additional factors, such as heavy workloads, inadequate managerial routines, unclear performance standards or objectives, peer pressure, limited opportunities for advancement, and inefficient task completion.

Employee performance is also influenced by the workplace environment. Nassazi (2013) asserts that unfavourable working circumstances can contribute to weariness, which may result in mishaps, low morale, or even injury. Organizations should make sure there is adequate lighting, temperature control, and a noise-free workplace in order to lessen these problems. Improving overall employee performance and fostering a healthy safety culture are dependent on each other.

Organizations ought to think about their rewards programmes as well. Talented employees are the target audience for reward schemes that work. Pay plans that are based on an employee's performance and the objectives of the company should be equitable and dependable. In addition, encouraging teamwork is crucial. In addition to encouraging open communication and cooperative

efforts toward common objectives, teamwork increases task completion and gives workers a sense of self-efficacy, dignity, and belonging.

Through the improvement of knowledge, skills, attitudes, abilities, competences, and behaviours, training is essential to raising employee performance. According to Elnaga and Imran (2013), it also reduces complaints, absenteeism, and turnover while boosting productivity and helping employees reach their goals. According to Asim (2013), motivation has a direct effect on both organizational commitment and employee performance. For organizations to be profitable, productive, and sustainable, leaders must be able to inspire their workforce (Ek & Mukuru, 2013). Participating in decision-making with staff members can increase motivation and mutual trust, which will improve performance.

A motivated workforce is more likely to be devoted and innovative, which enhances the cohesion of the company culture. According to Arinanye (2015), a culture that is defined by common values, norms, and beliefs encourages innovation and effective communication while also supporting employee performance. In an organization, trust is fundamental because it fosters cooperation, positive attitudes, and productivity. It has an impact on attitudes, perceptions, and performance results.

According to Arinanye (2015), organizational commitment has three components: (1) affective commitment, which comprises emotional attachment and involvement with the organization; (2) continuance commitment, which is based on the perceived costs of quitting; and (3) normative commitment, which symbolizes the felt obligations to stay with the organization. Job enrichment, empowerment, pay, educational attainment, personality, and position are additional variables that affect an employee's loyalty to the firm. Leaders that are charismatic and transformative are

especially good at increasing commitment because they take the time to support and cater to the requirements of each individual. According to Arinanye (2015), the implementation of psychological empowerment tactics fosters stronger ties between leaders and employees, which in turn improves performance.

2.10.2 Employee Performance Evaluation

According to Ahmed, Sultana, Paul, and Azeem (2013), certain firms might not have a systematic way for assessing employee performance, which might result in outcomes that are imprecise, ineffective, and confusing. It is imperative that organizations have a systematic strategy to performance evaluation in order to tackle this issue. The evaluation of an employee's performance is based on their actions and results in comparison to established organizational standards. Personal characteristics, organizational context, environmental factors, motivation, skill levels, aptitudes, and job perceptions are a few examples of factors that might affect performance outcomes.

As per Nassazi (2013) and Arinanye (2015), there exist four standard metrics that are utilized to evaluate the performance of employees: (1) productivity, which measures how input resources are converted into goods and services; (2) efficiency and effectiveness, which assess the ability to accomplish particular objectives with a limited amount of resources; (3) quality, which indicates the unique characteristics of a good or service that meets a need; and (4) profitability, which assesses the ability to make a profit over a long period of time.

2.11 Training and Employee Performance

Programmes for employee development and training are essential for raising performance levels. Several studies have been done on the relationship between training and employee performance. Research by Baldwin and Ford (1988) shows that when training is integrated with aftercare and is in line with job objectives, performance improves. Increased productivity, improved job satisfaction, and higher retention rates are the results of effective training (Becker & Huselid, 1998). At TaTU, enhanced training initiatives can positively impact junior employees' performance, which in turn can lead to the success of the organization as a whole.

According to Safitri and Lathifah (2019), employee performance is the accomplishment of particular, clearly defined tasks within the company as compared to predetermined goals and objectives. Armstrong (2020) defines performance management as a continuous process of improving performance through goal-setting that is in line with the organization's strategic objectives, preparation for achieving these goals, tracking advancement, and skill and ability development for staff members. According to Aidan (2013) and Armstrong (2020), productivity, efficiency, effectiveness, quality, and profitability are all crucial performance metrics. Employee performance often improves when motivated employees and new technology are used effectively (AlOmari et al., 2020).

Training aids organizations in achieving their goals and objectives. Workers can acquire new concepts, grow in their talents, improve their work attitudes, and increase productivity with new skills and knowledge (Cole, 2002). Training greatly improves one's performance at work. Saleem and Mehwish (2011) stress that investing in employee development through training is a vital component of human resource management. Training is a crucial development method for

accomplishing business goals in the competitive world of today. Employee and organizational performance depend on it (Niazi, 2011).

Employees with training are more equipped to handle present and upcoming organizational issues. Employees with the appropriate abilities and knowledge, according to Al-Damoe et al. (2012), make a major contribution to organizational development. Organizations can benefit from innovative ideas, improved services, and increased productivity through training. Better overall performance, increased productivity, increased profit, stability, decreased customer expenses, enhanced agency control, and a stronger organizational presence both domestically and internationally are the finest outcomes from training, claim Barzegar and Shahroz (2011). The goal of research and surveys is to determine the best training strategies to use in order to improve employees' job expertise. These training settings help staff members become more skilled, which enables them to provide better work. By improving employee performance, training enables businesses to adjust to organizational changes, market competition, and technology breakthroughs. Enhancing performance is the main objective of any firm, and this can only be accomplished through efficient staff performance.

Improving employee performance is mostly dependent on the training and development role (Asim, 2013). Increased output, efficient use of new technology, and greater motivation are all signs of improved performance (Nassazi, 2013). To measure and achieve success, organizational leaders must create clear criteria and goals in order to achieve improved employee performance. Workers that engage in productive training and development initiatives typically perform at a higher level of efficiency (Hollenbeck et al., 2004). Employees that receive training not only have greater skills but also have improved thinking and creative talents, which facilitates better and more efficient decision-making. By evaluating performance outcomes to determine the degree of

progress, organizations can evaluate the effectiveness of their training and development initiatives. Productivity levels among employees can be used as a gauge for training effectiveness.

Providing opportunities for training and development demonstrates an employer's dedication to helping staff members advance in their professions. Surveys and research have shown how training improves organizational effectiveness. For instance, on-the-job training improves morale, fortifies employees' capacity to carry out their responsibilities, and assists new hires in becoming acquainted with the organization's objectives, policies, and structure. Employee effectiveness is increased by the direction of trainers or seasoned workers on particular job approaches and practices. Employees with good training are more likely to stick with the company and put in more time. In addition to promoting new concepts and technology, training might also involve job rotations, transfers, coaching, and mentoring.

According to Landa (2018), employee performance is positively impacted by training; and according to Sasidaran (2018), it is a crucial tool for improving productivity, boosting organizational capabilities, and achieving goals. Training and development are tactical strategies that enhance employee performance by equipping employees with the advanced skills, information, and mindset required to achieve organizational objectives, according to Afroz (2018). According to Kenny and Nnamdi (2019), training has a significant role in forecasting employee performance as well as enhancing their talents, competencies, and sense of accomplishment. Research indicates a robust correlation between employee performance and training due to multiple reasons. Luo et al. (2021), for example, investigated the effects of task performance on training, job satisfaction, supervisory mentoring, and interpersonal helping. They discovered that job satisfaction and task performance are highly influenced by both supervisory mentorship and training, with task performance being positively impacted by job satisfaction and these effects

being moderated by interpersonal assistance. While human presence is still essential in crucial situations and service encounters, IT plays a fundamental role, according to Gonzalez and Gidumal's (2017) investigation into the impact of IT on front desk personnel performance. Several factors pertaining to employee performance and training were found by Sendawula et al. (2018) in their examination of the relationship between training, employee engagement, and performance in Uganda's health sector.

Guskey (2000) highlights the significance of assessing professional development initiatives to make sure staff performance is improved. He discusses several assessment techniques as well as how training affects instructional strategies and student performance.

Hattie and Timperley (2007) investigate how performance and learning are affected by feedback. Their study emphasizes the value of prompt, detailed, and helpful feedback in raising employee performance. Technical universities can improve the development of junior staff by incorporating feedback mechanisms into their training programmes.

2.12 Conceptual Framework

The relationship between training and employee performance is depicted in Figure 2.1 through the four main stages of the training process: training needs analysis, training design, delivery method, and training evaluation. The conceptual framework for this study outlines the relationship between key variables, structured around these four main stages of the training process. These components work together to influence employee performance, illustrating how a well-organized training programme enhances the effectiveness of junior staff at Tamale Technical University.

Raja and Mohammed (2011) emphasize that training has a significant positive impact on employee performance. When training is carefully planned and executed, employees are more likely to achieve the desired performance outcomes. This framework highlights the importance of a systematic approach to training in improving junior staff productivity.

2.12.1 Key Components of the Conceptual Framework

1. Training Needs Analysis (TNA)

- Identifies skill gaps and training requirements based on performance deficiencies.
- Ensures training objectives align with job roles and institutional goals.
- Without a proper needs assessment, training may fail to address critical performance challenges.

2. Training Design

- Focuses on structuring training content, setting learning objectives, and selecting instructional strategies.
- A well-designed programme incorporates relevant case studies, simulations, and job-specific tasks to enhance learning.
- Poorly structured training can lead to ineffective knowledge transfer and minimal impact on employee performance.

3. Training Delivery Methods

- Includes various approaches such as on-the-job training, workshops, mentoring, e-learning, and hands-on practical sessions.
- Effective delivery techniques improve knowledge retention and employee engagement.
- Choosing the right method ensures alignment with employees' learning styles and job responsibilities.

4. Training Evaluation

- Assesses the effectiveness of training programmes through feedback, skill assessments, and performance appraisals.
- Helps ensure training objectives are met and informs future improvements.
- Without proper evaluation, training efforts may lack measurable impact and fail to enhance performance.

By incorporating these components, the study examines how a structured training process contributes to the professional growth of junior staff at Tamale Technical University, ultimately improving their job performance.

When the key training components are effectively implemented, they result in:

- Increased Productivity: Employees become more efficient, skilled, and confident in their roles.

- Higher Job Satisfaction: Well-trained staff feel valued and motivated, leading to improved workplace morale.
- Enhanced Service Delivery: Skilled support staff play a crucial role in maintaining both academic and administrative efficiency in technical universities.
- Organizational Growth: Improved employee performance strengthens institutional effectiveness and enhances the university's competitive advantage.

This conceptual framework underscores the importance of structured and well-evaluated training programmes in driving significant improvements in employee performance. It highlights training as a key element of human capital development at Tamale Technical University.

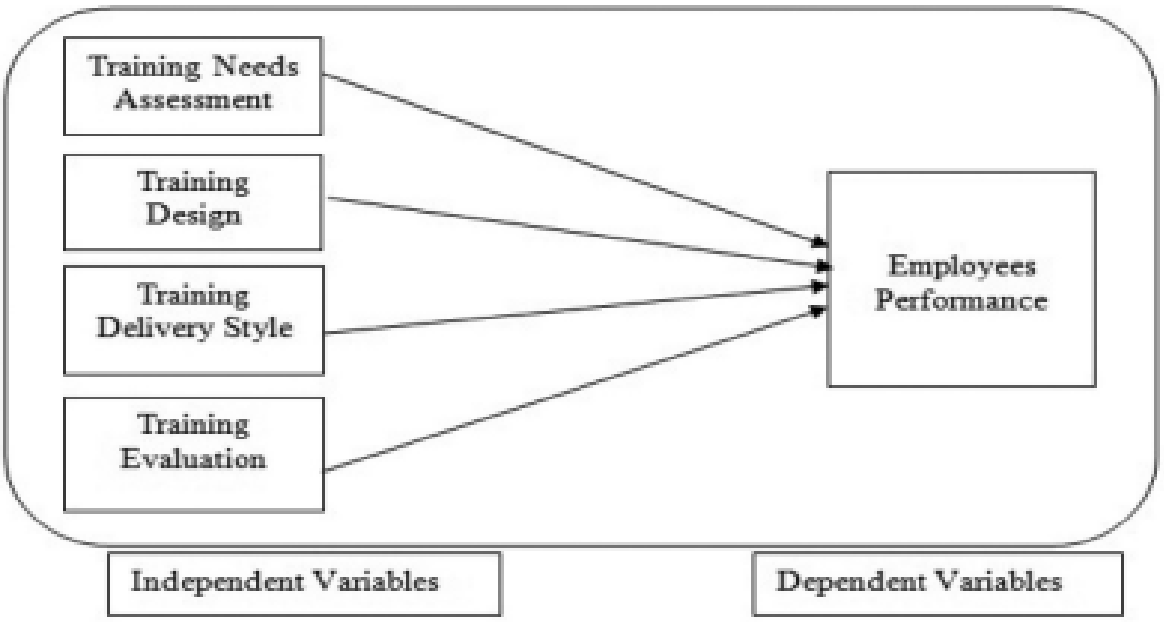

Figure 2.1: Conceptual Framework

Source: Researcher's own concept

2.13 Empirical Review

The empirical review explores previous research on the impact of training on employee performance, identifies gaps in the literature, and highlights their relevance to the current study on enhancing junior staff performance at Tamale Technical University.

2.13.1 Related Studies on Training and Employee Performance

Numerous studies have examined how training influences employee performance, emphasizing its role in improving skills, efficiency, and overall organizational productivity.

Jehanzeb and Bashir (2013) conducted a study on the relationship between training, employee performance, and job satisfaction. Their findings showed that employees who receive ongoing training demonstrate enhanced skills, greater job commitment, and increased productivity. This aligns with the current research, reinforcing the importance of training in improving staff performance.

Research by Khan, Khan, and Khan (2011) found that well-structured training programmes significantly boost employee motivation and job performance. Their study, which focused on the banking sector, revealed that effective training enhances employees' confidence and ability to perform tasks efficiently. This insight is relevant to the present study, as junior staff at Tamale Technical University may benefit from motivation-driven training programs to improve their overall effectiveness.

2.1.3.2 Training and Organizational Performance

Tharenou, Saks, and Moore (2007) conducted a study to assess the impact of training on organisational performance. Their findings revealed that training enhances individual employee

performance, which in turn improves overall institutional effectiveness. This suggests that providing training for junior staff at Tamale Technical University could lead to better operational efficiency and improved service delivery.

2.14 Conclusion and Identified Gaps in the Literature

Despite extensive research on training and employee performance, several gaps remain. Much of the existing research has centred on corporate organizations and private-sector institutions (Jehanzeb & Bashir, 2013; Khan et al., 2011), with relatively little focus on the effects of training on junior staff in public technical universities. This study seeks to bridge that gap by focusing on Tamale Technical University.

While numerous studies have examined training and employee performance in developed economies, there is limited empirical research within Ghana's higher education sector. By exploring how training impacts junior staff performance in a Ghanaian technical university, this study adds valuable insights to the existing body of knowledge.

Previous research has largely concentrated on training for managerial or professional employees, with little attention given to junior staff (Tharenou et al., 2007). Since junior staff play a critical role in university operations, this study aims to provide a deeper understanding of how training influences their productivity.

The reviewed studies establish a strong foundation for understanding the relationship between training and employee performance. They emphasize:

- The importance of continuous training in enhancing employee skills and productivity.

- The role of motivation in ensuring training effectiveness.
- The impact of training on overall institutional performance.

By addressing these gaps, this study contributes to the broader discussion on employee development by specifically examining how training affects junior staff performance in a Ghanaian technical university. The findings will offer valuable insights for policymakers and university administrators looking to improve staff training programmes.

The literature review has underscored the significance of various theories in explaining the effect of training on performance. It integrates theoretical, conceptual, and empirical studies to develop a comprehensive understanding of these training components. It has highlighted that each component plays a distinct yet interrelated role in the overall effectiveness of training programmes. The conceptual framework developed, highlights the significance of a comprehensive approach to training taking into account the needs assessment, planning, delivery, and evaluation phases.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

This section outlines the research philosophy, design, sample selection, data collection methods, and data analysis techniques employed in this study. The details of the quantitative methodology employed in this investigation are explained including how data was collected, analysed and discussed to help understand the effect of training on junior staff members' productivity at TaTU.

3.1 Research Philosophical Position

When analysing the data collected on how training influenced junior staff performance at TaTU, the researcher had to consider the research philosophical stance as this shaped the approach used in data collection and analysis. In this sense, a research philosophical perspective outlines assumptions about reality, knowledge and the specified method of the study (Johnson & Onwuegbuzie 2004).

The positivist philosophy presupposes that knowledge must be derived from events and experience that have been witnessed. It makes quite an emphasis on the quantitative methods of research and application of understandable statistical techniques to identify patterns and linkages. In the opinion of this researcher, reality is considered as external and it has the potential to be observed and described neutrally. If the paradigm adopted in this study was positivist in nature, then indicators such as performance metrics, quantitative analysis and actual assessments, figures out how helpful the training programmes are. Since training is assumed to have uniform and discriminative impact on performance, the study's purpose was not to produce results that could be extrapolated to other

similar conditions. The organizational paradigm selected was appropriate to the objectives, questions, and data measurement of the study.

3.2.1 Ontology

In research, the study of the nature of existence, being, or reality is referred to as ontology. It answers the questions of what kinds of things are there in the world and how to classify and relate them to one another. Ontology plays a crucial role in defining the components of "reality" that a study on the effects of training on junior staff performance at TaTU is examining, as well as the researcher's understanding of the nature of the phenomena under investigation. According to realism, there is an objective reality that exists apart from human perspective. Whether or not we can precisely measure or see it, this reality nonetheless exists. The researcher made the assumption that employee performance and training efficacy are objective realities. According to the study, performance metrics and evaluations allow for the objective measurement of performance gains. Standardized examinations and performance appraisals are examples of quantitative instruments used in data collecting that are predicated on the assumption that they correctly reflect objective performance gains. The study's objective was to ascertain the actual nature of training effectiveness. It was thought that training and performance had an objective, underlying reality. Realistic methods are typically quantitative.

3.2.2 Epistemology

In study, epistemology addresses the nature, extent, and boundaries of knowledge. It looks at the relationship between the knower and what is knowable, how we come to know what we do, and how beliefs are justified. The researcher's methods for gathering, analysing, and validating information about the impact of training were influenced by epistemology when investigating the

effects of training on junior staff performance at Tamale Technical University. According to positivism, knowledge is attainable through scientific procedures and empirical observation, and it is also objective. It places a strong emphasis on quantifiable, observable occurrences and looks for general laws or principles. The investigator employed standardized, quantitative techniques (such as performance measures and questionnaires) to collect data in order to guarantee the objectivity and reproducibility of the knowledge produced regarding the impacts of training. The main goal would be to gather numerical data so that the effects of training on performance could be assessed statistically. Logical reasoning and empirical data are used to validate knowledge, with a focus on measurement tools' validity and reliability. Positivism may be better suitable for quantifying affects and determining consequences that are applicable to a wider population.

3.3 Research Paradigm

The researcher's approach to gathering and interpreting data was influenced by their choice of epistemological stance when examining how junior staff performance at Tamale Technical University improved with training. From the positivism perspective, knowledge values must be neutral and empirical that is acquired from counting observable variables. It employs scientific methodologies in order to assert to the existence of laws or principles that would be universal. By the positivism four, the training effects can be measured and assessed in a quantifiable manner. It is being premised on empirical fact data or such facts that are measurable. The extent of effectiveness of staff training was assessed by the researcher in terms of performance using statistical mirror, performance assessing tools and structured questionnaires. The purpose was to obtain results that may be relevant to other similar settings, on the assumption that training effects

are both portable and estimable. Knowledge is received from observations and experience along with data analysis based on reliability, validity, and results duplication.

Thus, positivism was used as the theory for the study. This epistemological paradigm was particularly focusing on the numerical and logical knowledge and the objective of this approach was to acknowledge certain scientific tools and methods to arrive onto the fixed patterns of generalisation. The research adopted positivism research paradigm and focused on quantitative data to assess the staff performance regarding training programmes without biasness. This approach ensured that the conclusions were founded on quantifiable, tangible evidence that could be observed; the analysis of SWP training effectiveness provided an unmistakable reality endowment to the assessment and enhancement of the efficacy of all training programmes.

3.4 Research Design

The philosophy for the study hinges on positivism. Hence, the research approach should be quantitative. The quantitative design facilitates the identification of causality and the mechanisms through which training interventions affect employee performance. Through questionnaire, the study gathered data that was analysed using quantitative techniques including regression analysis.

3.5 Profile of Tamale Technical University

Tamale Technical University (TaTU), one of these recently founded institutions, has its roots in a technical institute that was founded in 1963 and a trades school that dates back to 1951. Under the Technical Universities Act of 2016 (ACT 922), it was converted into a Technical University in

2018, showcasing its original status as a Polytechnic institution. As a state tertiary school, TaTU is autonomous and offers accredited programmes that are overseen by the Commission for Technical and Vocational Education and Training (CTVET) and approved by the Ghana Tertiary Education Council (GTEC). TaTU is dedicated to providing higher education and doing research in technical, engineering, and vocational programmes in accordance with practical capabilities. Hence, graduates produced are employment ready. The university has the vision of becoming one of the most respected and premier universities in the global dispensation of offering technical education.

3.6 Research Population

The research population for the study assessing how training affects junior staff performance at Tamale Technical University consists of all junior staff members working there. This group encompasses the entire set of individuals who are currently employed in junior positions at the university and who have participated or will participate in training programmes. Tamale Technical University's junior employees are the study's target group. Technical assistants, librarians, administrative officers, and other support personnel who have not achieved middle-aged advancements typically hold junior positions. At the time of the research, around 880 people were the study's target group including 505 males and 375 females who worked as technical assistance, teaching assistance, librarians, and administrative officers/assistance among others. The population distribution is shown in Table 3.1.

Table 3.1: Population Distribution Showing Staff Category and Male/Female Breakdown

Category of staff	Male	Female
Technical assistance	190	179
Librarians	42	37
Administrative officers/assistance	140	119
Teaching assistance	133	40
Total	505	375

3.7 Sampling Procedure

Stratified sampling and random sampling of junior staff members were done to make sure that results from the study are a true representation of the bigger population and thus positive and general conclusions about the effects of training programmes can be made. The sampling frame comprises the name, department, position, email, and telephone number of all junior staff in TTU. To increase credibility of the study, the sampling process was done in a way that involves taking a sample of only the junior staff of each department or unit at TaTU. The junior staff was stratified by department or position to guarantee cross-sectional coverage of the university as a whole.

Random sampling is a technique for choosing people from the population so that every member has an equal chance of being chosen at any given time. By removing bias from the sampling process and increasing the likelihood of obtaining a representative sample, the results of this method can be extrapolated to the entire population. Random sampling reduces on selection bias in the sense that all the members in the population have an equal chance of being relayed to in the

sample. This allows for actualization of a true random sample which is then used in research in order to increase its reliability and authenticity (Creswell, 2014).

It makes it easier to generalize the results that are generated from the sample back to the population of the study. This is particularly important for the study on training effects at Tamale Technical University because the objective is to make generalizations on all junior staff. Random sampling enables the use of a host of statistical techniques in order to provide meaningful analysis. This includes employing inference statistics to generalize results with regards to the population from findings that are got from the sample (Field, 2018). From the above, it shows that random sampling provides each and every sector of the population a similar probability of being selected and so this helps in minimizing systematic mistakes and prejudices that could affect the results of the other sampling techniques like convenience or judgment sampling by Neuman (2014).

Random sampling will be utilized to choose samples from Tamale Technical University's junior staff population in order to conduct the study on the effect of training on junior staff performance. This ensured that the sample collected is actually an artificial representation of the different characteristics of the population say in matters regarding departments and other things. Any list of all junior staff members will be used, and some form of random sampling means such as computer-generated random numbers will be used to sample the participants. This means that probability of selecting an individual on that list is the same for all of them. Sample size selection plays the most critical role in sample and statistical validity to be attained. Sample size will be estimated by a sample sizing calculator to guarantee that the sample is sufficient to allow for generalization in light of the total population and the degree of accuracy desired (Pallant, 2020).

A number of criteria were taken into account when determining the sample size, including the predicted effect size, margin of error, desired confidence level, and population size. To get the sample size for an 880-person population, take the following actions: Step 1: Using the sample size calculation for proportions, the researcher determined the starting sample size:

Using the sample size formula for proportions:

$$n = \frac{Z^2 \cdot p \cdot (1-p)}{E^2}$$

where:

- Z = 1.96 (for a 95% confidence level)
- p = 0.5 (estimated proportion for maximum sample size)
- E = 0.05 (margin of error)

Plugging in the values:

$$n = \frac{1.96^2 \cdot 0.5 \cdot (1-0.5)}{0.05^2}$$

$$n = \frac{3.8416 \cdot 0.25}{0.0025}$$

$$n = \frac{0.9604}{0.0025}$$

$$n = 384.16$$

So, the initial sample size n is approximately 384.

The finite population correction formula has to be applied in Step 2 from the initial sample size of 384. This formula is attributed to the work of Cochran (1977) and is widely used in survey sampling and statistics.

The finite population correction formula is:

$$n_{\text{finite}} = \frac{n}{1+\frac{n-1}{N}}$$

where:

- N = 880 (population size)
- n = 384 (initial sample size)

Plugging in the values:

$$n_{\text{finite}} = \frac{384}{1+\frac{384-1}{880}}$$

$$n_{\text{finite}} = \frac{384}{1+\frac{383}{880}}$$

$$n_{\text{finite}} = \frac{384}{1+0.4352}$$

$$n_{\text{finite}} = \frac{384}{1.4352}$$

$$n_{\text{finite}} \approx 267.8$$

As a result, the sample size needed after correction is roughly 267 with the population of 880, 95% confidence level, 5% margin of error, and projected proportion of 0.5.

3.8 Model Specification

Using a multivariate regression model, the effect of training on the performance of junior employees at TaTU was statistically examined. The regression model addressed each of the distinct training components—training needs assessment, training design, training delivery, and training evaluation—as a separate independent variable. Junior staff performance is the dependent variable. The independent variables are: evaluation of training needs (TNA): training design (TD) (Salas, Tannenbaum, Kraiger, & Smith-Jentsch, 2012); quality of training needs identification (Goldstein & Ford, 2002); the design of the training programme's quality and applicability; training delivery (TDL) (Noe, 2017); techniques for delivering training that are effective; training evaluation (TE) (Holton, 2005); and the quality of the evaluation of training results. The following regression model was employed at TaTU to examine how training affected the performance of junior staff members:

$$\text{Performance}_i = \beta_0 + \beta_1 \text{TNA}_i + \beta_2 \text{TD}_i + \beta_3 \text{TDL}_i + \beta_4 \text{TE}_i + \epsilon_i$$

Where:

- Performance_i = Performance of junior staff i
- TNA_i = Training Needs Assessment score for junior staff i
- TD_i = Training Design score for junior staff i
- TDL_i = Training Delivery score for junior staff i
- TE_i = Training Evaluation score for junior staff i
- β_0 = Intercept of the model
- $\beta_1, \beta_2, \beta_3, \beta_4$ = Coefficients for each independent variable
- ϵ_i = Error term

3.9 Research Instrument

A questionnaire is a type of research instrument that consists of a set of inquiries intended to collect data from participants. Both quantitative and qualitative data can be gathered with them, depending on the goals of the study and the type of questions being asked. Typically, questionnaires are structured with predefined response options that facilitate quantitative analysis, or they can include open-ended questions for qualitative insights (Dillman, Smyth & Christian, 2014).

In Tamale Technical University's study evaluating the effect of training on junior staff performance, surveys served the following crucial purposes. First, questionnaires enabled us to measure the extent of staff perception of the training programmes. The type of closed-ended questions employed to gather varied aspects include training content, mode of training and overall satisfaction (Creswell, 2014). That way the study was able to obtain numerical data on staff performance and training effectiveness from the answers to the structured questions. These data were further subjected to statistical analysis to test hypotheses about changes in performance markers after the training in question (Pallant, 2020).

Questionnaires are a systematic method of data gathering where issues are stated in the form of questions consistently to all the members of the sample. This consistency is important for making cross-group comparisons of performances and differences in responses between junior staff members (Dillman et al., 2014). The use of questionnaires permits the rapid acquisition of information from a vast number of participants. This is especially helpful in case of a large number of junior employees, allowing the study to obtain necessary data on training outcomes for the whole population (Bryman, 2016).

Five components comprised the questionnaire: The sociodemographic profile of the respondents was shown in Section A, together with information on their years of TaTU service and level of education; and Sections B, C, D, and E discussed the four training phases to determine the training needs assessment, training development, training delivery method, and training assessment.

The questionnaire was essential for evaluating the effects of training by providing standardized, reliable, and quantifiable data on staff training and performance, thus enabling a robust analysis.

3.10 Data Analysis Techniques and Procedure

Data analysis covers the process through which data are statistically or logically manipulated so as to present, organize, outline or explain them. It is the process of converting inputs into outputs that can point to certain patterns, relationship and trends within given data. Measurement is critical in supporting mock testing, hypothesis testing checking the efficacy of implemented interventions, and making further use of the research findings (Field, 2018).

The researcher also obtained socio-demographic and background data for control purposes. The researcher also normalized the data, deal with the missing values and make the categorical data become numerical data if possible. Basic descriptive statistics were utilized to evaluate the quantitative data and characterize the demographic characteristics of the participants. This strategy entails condensation and categorization of data with a view of highlighting the major paratextual features. Measures of central tendency are mean, median, mode; while measures of dispersion include the standard deviation and frequency tables. They present an idea of the data and are useful in ascertaining some fundamental features of the data (Pallant, 2020). This was useful in getting

an overall big picture of the data as it where averages out performance and training feedback responses and such.

Descriptive measures were conducted to give a preliminary analysis of the data by presenting the data in a summarized form. Parametric statistics compared changes and differences to a hypothesized population value and checked whether inferred differences and changes were statistically significant.

Through the use of survey questionnaires, primary data was gathered for this investigation. The researcher collected data related to training needs identification, training development, training implementation, and training review. Descriptive statistics are used to describe the data collection in general while inferential statistics are used to make estimate or prediction about a population from a sample. The use of regression analysis helped to analyse whether observed patterns or differences are considered statistically significant and allowed also for conclusions about the significant of findings in the population sample (Creswell, 2014). This method is used in understanding the impact that change in one or more predictors have on a given outcome. This entailed estimating a regression analysis and hence identifying the important explanatory variables on performance (Neuman, 2014). Another advantage of regression analysis is that it is suitable for determining factors that has consistently a huge impact on performance result (Field, 2018). To estimate the regression model, the researcher employed the STATA software. This research applied regression analysis in evaluating the impact of training, given that it provided a rich understanding of factors that influenced training results in order to make a reflective assessment of its effectiveness (Creswell, 2014; Field, 2018).

Multicollinearity was tested among independent variables by the researcher through the use of the Variance Inflation Factor. In order to confirm the assumptions of the regression model, the researcher conducted diagnostic tests. The researcher then used estimated coefficients to justify effects of the training on performance measures. The researcher conducted t-tests on the coefficients so as to check the statistical importance of the coefficients. The researcher also applied the evaluation of the general performance of the entire model through R-squared and the adjusted R-squared. Applying these approaches made it possible to reduce variability and exclude the influence of other factors (Neuman, 2014; Pallant, 2020) on the results of the analysis and make it possible to link them to the training programmes. Quantitative data was analysed and used together with tables and graphs to display the findings.

3.11 Ethical Considerations of the Study

This study defines ethics in research to mean the practice of protecting the rights, dignity and welfare of the participants. In this study the following principles of ethical research were observed; informed consent, confidentiality, minimization of harm, voluntary participation, debriefing and ethical approval because doing research ethically is of utmost importance.

First, permission, which entailed availing of all the required information to be given to would-be participants of the research bearing in mind the objective, methodology, any risk inherent in the study, and benefits was offered to the participants in order to allow them make a rational decision to participate in the research exercise (Creswell, 2014). In a consent form, prior to participation, junior staff members were informed on the objectives and procedures of the study. They had to be assured that they could participate or not to participate without any reason or even withdraw at any

time without that decision have any repercussions on them. This affirms that participants had adequate information on what participation implies and can either consent or refuse to do so independently (Dillman, Smyth & Christian, 2014).

Confidentiality is about participants and their information; it means that information should not be shared with those not authorized to see it. In this case, participants in the research study are not exposed in respect to findings or data reports (Field, 2018). The author notes that in the study junior staff were the source of data and all data collected were deidentified by eliminating personal details. It was ensured that the data would be available only to personnel that were involved in the research process. Data collected was kept safe, and only summarized in a way that would not avoid any possibility of revealing any participant (Pallant, 2020).

By virtue of their work, researchers have the responsibility of reducing any physical or psychological injury to the participants. This comprises things which may bring discomfort or distress and are best left unpracticed (Neuman, 2014). To avoid an impact that may result in harm to their well-being, the study followed the guidelines regarding participation of junior staff. This incorporated aspects, based on privacy expectations, that questions used are appropriate and not directly invasive and that staff were not uncomfortable as they responded to the questions. In case of any such occurrences, the researchers had mechanisms through which any arising incidences would be dealt with as they occurred (Dillman et al., 2014).

In research participants were not forced or pressure into being part of the research process (Creswell, 2014). The researcher conveyed to the participants that they are free to participate or not and that the refusal to participate did not impugn the participant in any way or lower the

participant's standing at his or her workplace. To reduce any level of coercion in the study, researchers made sure that staff membership in or out of the study was voluntary (Field, 2018).

Debriefing means explaining the whole intended goal of the study and the utilization of the data gathered where those involved had been let in only partially. It assists to explain any part of the research and respondents' possible questions (Neuman, 2014). In order to maintain individual and collective participant satisfaction following the study, junior staff were offered a debriefing session where described to them the purpose of the study, how their data was utilized, and its significance to the study. This process has assisted in keeping the participant informed, and thus trust was maintained by avoiding the construction of the design element prematurely (Dillman et al., 2014).

Ethical clearance was obtained from the supervisor with a view of ascertaining whether the proposed research complies with set ethical protocols and legal requirements (Pallant, 2020). In this regard, the researcher ensured that he/she got the approval of the supervisor for the research proposal through submittal of the department. This process helped that the study avoids ethical issues and if any possible risks are there then they are identified and minimize (Creswell, 2014).

3.12 Validity and Reliability

The two are the foundational concepts in every research methodology, which aim to confirm the preciseness of the results that have been obtained. Given the suggestions that arise from evaluating the impact of training on junior employees' performance at TaTU, it is crucial to guarantee that the outcomes obtained are accurate and dependable. Validity can be defined as the degree to which a specific instrument in the process of gathering data is really reflecting the points that it is designed

to reflect. This shows the extent to which the findings hold the true picture of the phenomenon being investigated (Creswell, 2014).

Content validity evaluates whether the constructed instrument is broader or at par with the concept that is being measured. For example, a questionnaire assessing the effectiveness of training should contain items that reflect all possible areas of the training programme, content, delivery method, and outcomes on performance (Neuman, 2014).

Construct validity addresses the issue of whether the particular instrument actually captures what they are supposed to capture or the specific theoretical concept they are designed to measure. In this study, construct validity enhances the assurance of the fact that the questionnaire measures training and performance concepts and no other unrelated concepts (Field, 2018).

Criterion related validity involves the correlation of the scores of the instrument with that of an external criterion that is accepted as a measure of the construct. For instance, the performance levels that existed before the training can be compared to that of after the training in an effort to compare the validity of the training programme as outlined in the industry (Pallant, 2020).

Reliability means that the findings of the research instrument used are constant, and did not change over time. They show the extent to which the results of the instrument are reliable and consistent (Creswell, 2014). Internal consistency determines the agreement of the responses with other belonging to the same instrument. For instance, where questions in a questionnaire are developed to address different aspects of training satisfaction, internal consistency validates that these questions return similar results (Field, 2018). In test-retest reliability the same instrument is used on the same group of participants twice in different time intervals to measure consistency. For example, completing the performance evaluation questionnaire at different time can increase the

reliability of the exercise (Pallant, 2020). Inter rater reliability is used to measure the level of consensus between different raters or evaluator. Whenever there are separate coders or scorers than inter-observer reliability checks that each coder or scorer is assigning the same score or rank (Neuman, 2014).

Since internal consistency is assessed using a reliability coefficient called Cronbach's alpha, it is possible to compute the alpha. Field (2018) states that a number above 0.70 often indicates a satisfactory degree of dependability.

The researcher conducted a pilot test for the questionnaire and comparing the answers to establish characteristic inter-observer reliability before conducting the main study (Creswell, 2014). This is because reliability and validity of research instruments were crucial in order to achieve reliable data in this study. Validity supported the fact that the instrument takes the correct measures in as much as reliability supported the fact that the results could be reproduced. Through details working on the questionnaires, pre-testing it and on top of that using relevant statistics in the reliability and validity test, the research on the impacts of training on junior staff performance of Tamale Technical University will provide trustworthy results.

3.13 Conclusion

The guidance of the research was based on the positivist epistemology and methodological approach that relies mostly on numbers. This approach enables us to work through the programmes statistically and arrive at definite conclusions on how training is instrumental in modifying staff performance. The research approach used in the study was quantitative research, alongside structured questionnaires to measure the junior staff's perception and performance pre and post

training. This method allowed for an evaluation of training impact as it was possible to compare data gathered before and after the training. The study used both stratified and random sampling techniques so that every junior human resource staff in the university had probability of being included. This reduced selection bias and increased sample generalizability thus enabling a general conclusion on the impact of the training programme. The data was analysed using both descriptive and inferential analysis. While parametric measures of dispersion critically examined observed changes and potential correlation, measurements of central tendency and variability measured basic performance patterns.

To ascertain whether various training parameters had a significant impact on training performance, a multiple regression technique was used. Organizational ethical issues were given a considerable amount of attention in this research study. Participants were informed of the study's goal and their right to withdraw at any time by completing a consent form, which was used to get their consent to participate in the study. Data confidentiality was ensured by using only code numbers and explaining the study purpose and results at the end of the interview. These steps we considered as important to ensure credibility and also respect the participant's rights.

Validity and reliability of the approach also formed the centre of the research methodology. Their validity was examined through content validity, construct validity, and criterion related validity, to assess correspondence to training effects. Validity was examined for criterion validity, construct validity, and convergent validity to confirm that the questionnaire measurement was valid and accurate and that its scores were related to other measures. This comprehensive approach ensures that the research results are credible, actionable, and relevant, offering meaningful recommendations for optimizing training programmes and ultimately benefiting both the staff and the institution as a whole.

CHAPTER FOUR

RESULTS AND DISCUSSIONS

4.0 Introduction

The study's findings and analysis are presented in this chapter. Results on socio-demographic characteristics are first discussed and after the results of the study are discussed.

4.1 Socio-demographic Data of Respondents

The researcher's goal in conducting the study was to learn more about the respondents' backgrounds. The sociodemographic details of the respondents, such as age, marital status, and level of education, are summarized in this section. This was done to better comprehend the responses given and to learn more about the characteristics of the respondents. Tables present an examination of these variables and gives descriptive statistics for a number of variables from a dataset that has 268 observations (rows). Each of the variables is identified by its name, along with its mean, or average value, standard deviation, or degree of variation or dispersion of values, lowest value, and maximum value. An overview of each variable's distribution and central tendency within the dataset is provided by these descriptive statistics.

Table 4.1: Descriptive Statistics

Variable	Obs	Mean	Std. dev.	Min	Max
Sex	268	.3619403	.4814608	0	1
Age	268	1.190299	.7065631	0	2
Exper	268	10.97761	4.445199	4	17
Position	268	.4029851	.4914155	0	1
Acadqual	268	1.425373	.4953244	1	2
Training	268	4.051244	1.157491	2	6.133333
Productivity	268	4.721082	1.069081	2.4	6.65
Attendance	268	4.196206	1.035555	2.027778	5.527778
WQ	268	4.781716	1.487199	1	7

4.1.1 Sex of Respondents

As shown in Figure 4.1, the mean of roughly 0.362 for the 268 respondents' sex suggests that roughly 36.2% of the observations are female and 63.8 percent of the respondents are male. More men than women were present.

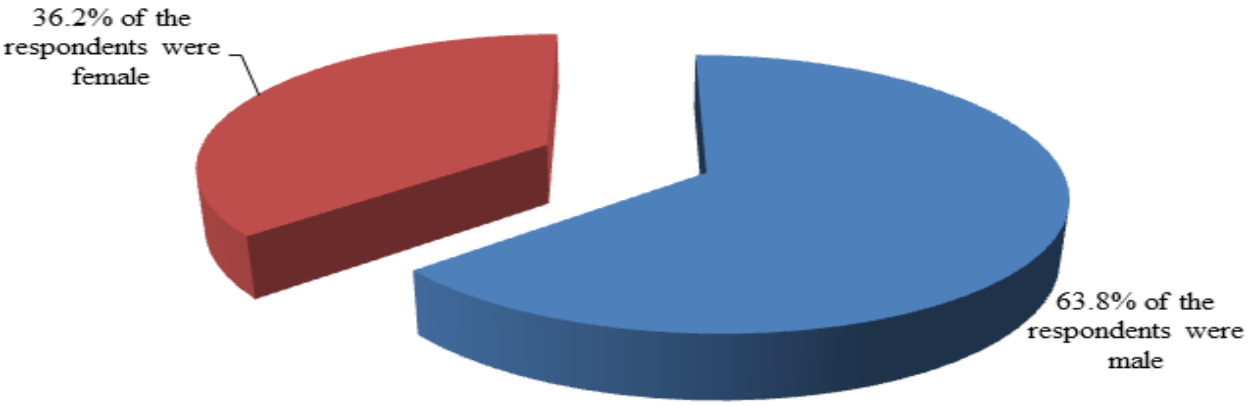

Figure 4.1: Sex Distribution of Respondents

4.1.2 Age Distribution of Respondents

As can be seen in Table 4.2, where the majority of respondents are between the ages of 40 and 59. According to Table 4.2, of the 50 respondents, 59% were between the ages of 40 and 59, with 36% being between the ages of 25 and 39. Of those surveyed, about 5% were 60 years of age or older.

Table 4.2: Age Distribution of Respondents

Age bracket	Frequency	Percentage
29-35 years	317	36%
40-59 years	519	59%
Over 60 years	44	5%
Total	880	100%

4.1.3 Experience of Respondents at TaTU

The years of experience range from 4 to 17 years, with an average of about 10 years. According to the experience of respondents who had worked at TaTU, 36% had worked there for 0–5 years, as seen in Figure 4.2. Sixty-one percent of the interviewees had been employed at TaTU for six to ten years. Only around 2% had been in service for 11 to 15 years; and just 1% of respondents had more than 15 years of service.

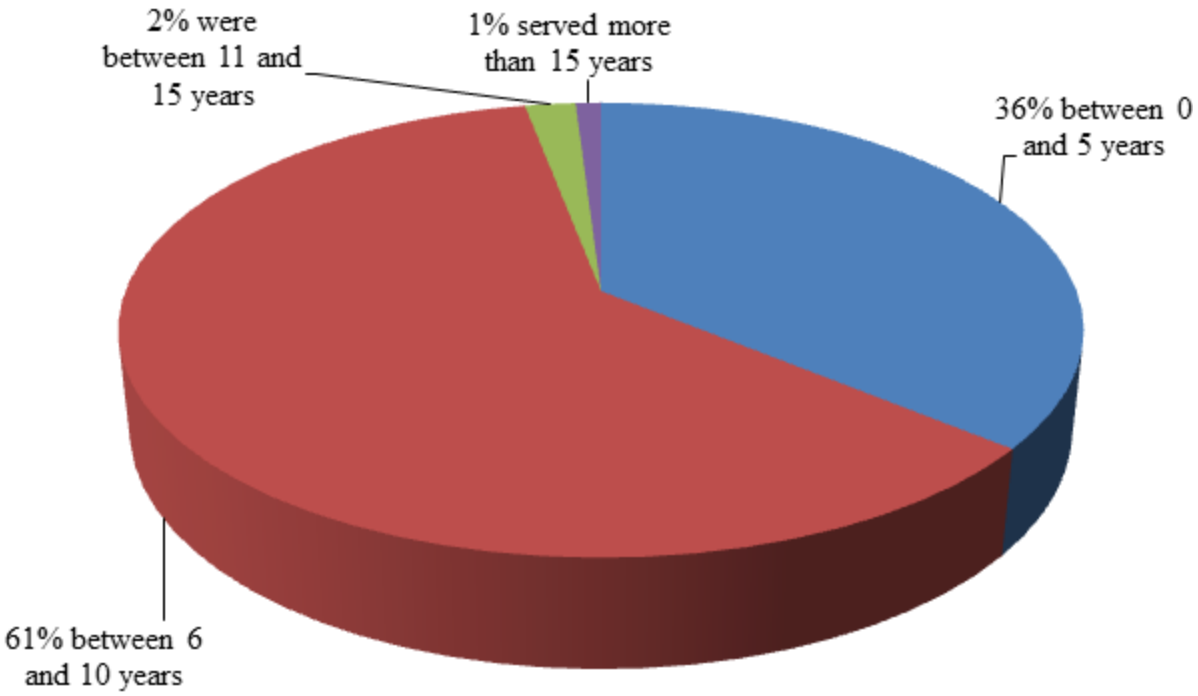

Figure 4.2: Length of Service or Experience of Respondents at TaTU

4.1.4 Position of Junior Staff at TaTU

According to the responders' positions at the workplace, one is either a junior or a senior. One of these positions accounts for about 40.3% of the observations. According to Figure 4.3, this indicates that roughly 40% of TaTU's junior employees had positions of power. About 60% of the junior staff were not in positions of power/authority.

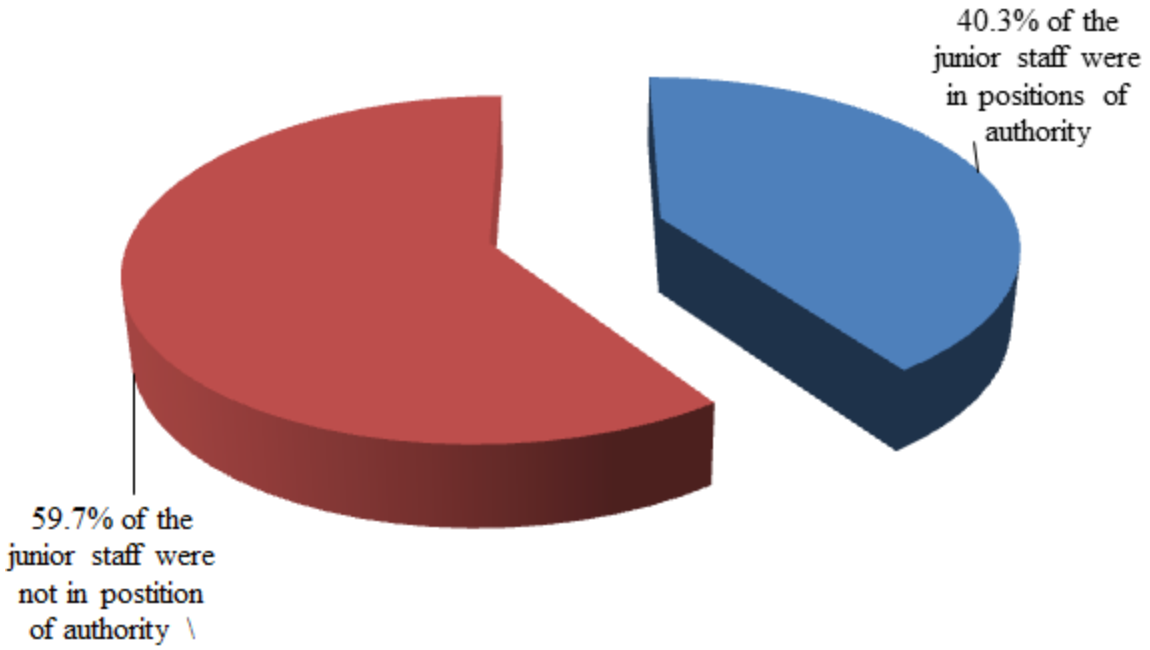

Figure 4.3: Position of Respondents at TaTU

4.1.5 Academic Qualification or Educational Attainment of Respondents

Respondents' educational attainment is displayed in Figure 4.4. Two distinct levels of academic qualification are suggested by the variable's values of 1 or 2, which appear to be categorical. According to the data, 55% of the 50 respondents in the survey had a first degree. Approximately 45% of those surveyed held a postgraduate degree. It is evident that the majority of people have first degrees.

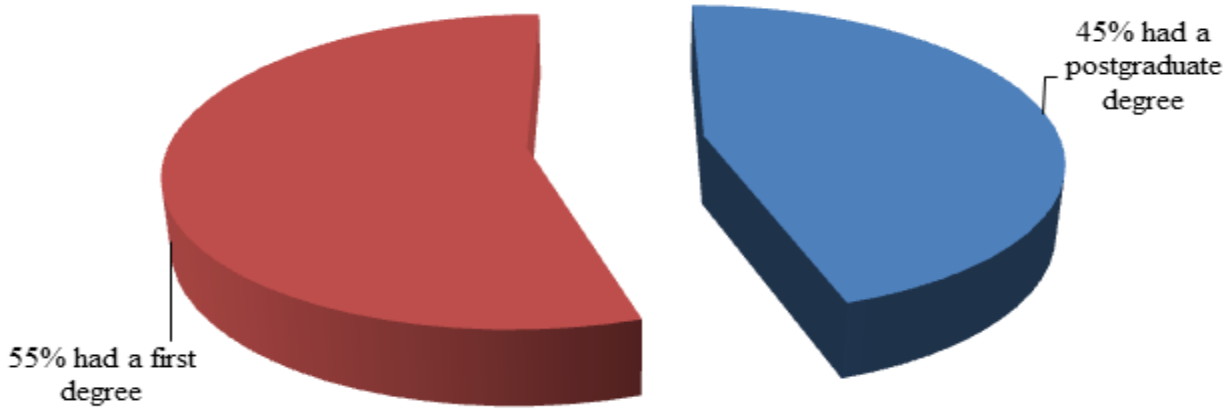

Figure 4.4: Educational Attainment of Respondents at TaTU

4.2 Discussion of Descriptive Statistics

4.2.1 Training Needs Assessment of Employees at TaTU

To first objective sought to investigate the role of training needs assessment on the performance of junior staff at TaTU. The descriptive statistics for the training needs assessment process of employees at TaTU provide insights into how effectively the institution identifies and addresses training requirements. Below is an analysis of the results:

Table 4.3: Training Needs Assessment for Employees at TaTU

Role of Training Needs Assessment in Improving Staff Performance	**Observations**	**Mean**	**Standard deviation**	**Minimum**	**Maximum**
Q1. Need for specific new skills	268	3.5	0.9	1	5
Interest in new skills/technologies	268	4.1	0.7	2	5
Job responsibilities requiring new skills	268	3.8	0.8	1	5
Time constraints' impact on training	268	2.9	1.2	1	5
Future career growth skills	268	4.3	0. 6	3	5
Strategic skill requirements	268	4.2	0.7	2	5
Pre-training needs assessment	268	3.0	1.0	1	5
Understanding of training goals	268	3.2	0.9	2	5
Training impact on role performance	268	3.9	0.8	2	5

The mean scores range from 2.9 to 4.3, showing varying levels of agreement with statements about the training needs assessment process. The standard deviations range from 0.6 to 1.2, reflecting differences in consensus among respondents. Some items exhibit strong agreement, while others highlight significant variability.

The first item on the questionnaire in assessing training needs assessment of employees was Q1 (the need for specific skills). The Mean of 3.5 and SD of 0.9 show moderate agreement, indicating that employees of TaTU believed they lacked specific skills essential for their roles. The variability suggests differing levels of perceived skill gaps across employees.

The second item on the questionnaire assessing training needs assessment of employees was Q2 (interest in learning new skills/technologies). The Mean of 4.1 and SD = 0.7 show strong agreement and low variability indicating that employees are highly interested in learning new skills or technologies relevant to their roles. This highlights a strong motivation for professional training and development.

The third item on the questionnaire assessing training needs assessment of employees was Q3 (changing job responsibilities requiring new skills). The Mean of 3.8 and SD of 0.8 show high agreement suggesting that employees recognize changes in their job responsibilities that require new skills. This reflects the dynamic nature of their roles and the need for ongoing training.

The fourth item on the questionnaire assessing training needs assessment of employees was Q4 (time constraints' impact on training). The Mean of 2.9 is relatively low indicating that time constraints and scheduling issues may significantly affect participation in training. The SD is 1.2 which shows a high variability suggesting that this challenge is not uniformly experienced across employees.

The fifth item on the questionnaire assessing training needs assessment of employees was Q5 (importance of future career growth skills). The highest mean (Mean = 4.3) reflects strong consensus that skills for future career growth are highly important. This underscores the strategic relevance of training for both employees and the institution. The SD of 0.6 shows a low variability suggesting that this was uniformly experienced across employees.

The sixth item on the questionnaire assessing training needs assessment of employees was Q6 (strategic skill requirements). The Mean of 4.2 and SD of 0.7 show strong agreement with low variability indicating that employees recognize the importance of skills aligned with TaTU's strategic directions. This highlights the perceived alignment between individual development and institutional goals.

The seventh item on the questionnaire assessing training needs assessment of employees was Q7 (pre-training needs assessment). A moderate mean and higher variability (Mean = 3.0, SD = 1.0)

indicate mixed perceptions regarding whether TaTU conducts effective training needs assessments before implementing training programmes. This suggests room for improvement in this area.

The eighth item on the questionnaire assessing training needs assessment of employees Q8 was (comprehensive understanding of training goals) (Mean = 3.2, SD = 0.9). The slightly above-average agreement indicates that while employees perceive efforts to understand training goals, there is variability in how well these efforts are implemented.

The ninth item on the questionnaire assessing training needs assessment of employees was Q9 (training impact on role performance) (Mean = 3.9, SD = 0.8). A high mean shows agreement that training helps employees perform their roles effectively and efficiently. This reflects positive outcomes from training but highlights the need to address variability in its effectiveness.

It was observed that Q5 (Future Career Growth Skills) and Q6 (Strategic Skill Requirements) exhibit the highest agreement and lowest variability, indicating a clear alignment of training needs with individual career growth and institutional goals. Employees express strong interest in acquiring new skills (Q2), suggesting a motivated workforce ready to embrace professional development. Q4 (Time Constraints) and Q7 (Pre-Training Needs Assessment) highlight challenges in participation and the effectiveness of pre-training assessments. These issues may hinder the overall success of training programmes. Q8 (Understanding of Training Goals) reflects moderate agreement, suggesting that more effort is needed to clearly define and communicate training objectives.

4.2.2 Training Design Development for Employees at TaTU

The second objective sought to examine training design development of junior staff at TaTU. The descriptive statistics for the training design development of employees at Tamale Technical

University (TaTU) provide insights into the effectiveness and perception of the training design process. Table 4.4 illustrates the responses.

Table 4.4: Training Design Development for Employees at TaTU

le of Training Design Development in proving Staff Performance	**Observations**	**Mean**	**Standard deviation**	**Minimum**	**Maximum**
.. Effectiveness of past training ɔgrammes	268	2.8	1.1	0	5
2. Relevance of training design	268	3.9	0.9	1	5
3. Alignment with organ. objectives	268	4.2	0.8	2	5
4. Tailored to employee needs	268	3.5	1.0	1	5
5. Consideration of learning styles	268	3.4	1.1	0	5

Mean scores range from 2.8 to 4.2, suggesting varying levels of agreement among respondents about the effectiveness of different aspects of training design. Standard deviations range from 0.8 to 1.1, indicating moderate variability in responses. Some items reflect higher consensus, while others show a broader range of perceptions.

The first item on the questionnaire on training design development for employees at TaTU (Q1. effectiveness of past training programmes) had Mean = 2.8 and SD = 1.1. This item has the lowest mean, suggesting that respondents find aspects of past training programmes less effective. The higher standard deviation indicates diverse experiences and opinions, pointing to a need for improvement in this area.

The second item on the questionnaire on training design development for employees at TaTU (Q2. relevance of training design) had a Mean = 3.9 and SD = 0.9. A relatively high mean suggests that respondents perceive TaTU's training design as comprehensive and relevant. The lower variability indicates broad agreement, signifying that this is a strength in the training design process.

The third item on the questionnaire on training design development for employees at TaTU (Q3. alignment with organizational objectives) had Mean = 4.2 and SD = 0.8. This item has the highest mean, reflecting strong agreement that training design aligns with both immediate learning needs and long-term organizational goals. The low variability suggests a high level of consensus, indicating this as a key strength.

The fourth item on the questionnaire on training design development for employees at TaTU (Q4. tailored to employee needs and preferences) had Mean = 3.5 and SD = 1.0. Moderate agreement indicates that training is somewhat tailored to employee needs and preferences. However, the variability suggests that this tailoring is inconsistent and might not meet all employees' expectations.

The fifth item on the questionnaire on training design development for employees at TaTU (Q5. consideration of learning styles) had Mean = 3.4, SD = 1.1. Responses show moderate agreement regarding whether TaTU considers employee learning styles (visual, auditory, kinesthetic) in training design. The higher standard deviation points to variability in perceptions, suggesting that more effort is needed to address diverse learning preferences.

Q3 (alignment with organizational objectives) is a standout area, with the highest mean and low variability. This indicates that training design is well-aligned with institutional goals and strategic priorities. Q2 (relevance of training design) also performs well, highlighting the comprehensiveness of TaTU's approach to training design. Q1 (effectiveness of past programmes) reflects dissatisfaction with aspects of previous training programmes. This could indicate issues with content, delivery, or perceived value of the programmes. Q4 (tailored design) and Q5 (consideration of learning styles) show that while training design considers employee preferences,

there are inconsistencies. These areas would benefit from more customization and inclusivity to address diverse staff needs.

4.2.3 Training Delivery Methods/Styles for Employees at TaTU

The third objective of the study sought to examine effectiveness of training delivery methods. The descriptive statistics on the training delivery methods/styles for employees at Tamale Technical University (TaTU) provide key insights into the perceptions of staff regarding the effectiveness and alignment of these methods with their needs and organizational goals.

Table 4.5: Training Delivery Methods/Styles for Employees at TaTU

le of Training Delivery Methods in proving Staff Performance	**Observations**	**Mean**	**Standard deviation**	**Minimum**	**Maximum**
. Training delivery execution	268	3.7	0.9	1	5
. Engagement and learning objectives	268	3.9	0.8	2	5
. Retention and application support	268	4.1	0.7	3	5
. Tailored delivery	268	3. 6	1.0	1	5
. Retention and application support	268	3.8	0.9	2	5

The mean scores range from 3.6 to 4.1, indicating overall positive perceptions of the training delivery methods, with responses leaning toward agreement. The standard deviations range from 0.7 to 1.0, suggesting moderate variability in responses, with some questions exhibiting more consensus than others.

The first item on the questionnaire on training delivery methods/styles for employees at TaTU, Q1 (training delivery execution), had a Mean = 3.7 and SD = 0.9. This means respondents agree that training delivery methods at TaTU are generally well-executed. However, the variability suggests

that some staff may have experienced inconsistencies in delivery quality. This indicates a potential need for standardization of delivery practices.

The second item on the questionnaire on training delivery methods/styles for employees at TaTU, Q2 (engagement and learning objectives), had Mean = 3.9 and SD = 0.8. A relatively high mean shows that respondents find the delivery style engaging and aligned with learning objectives. The lower variability indicates consensus, suggesting that trainers are effective in capturing attention and meeting intended outcomes.

The third item on the questionnaire on training delivery methods/styles for employees at TaTU, Q3 (retention and application support), had Mean = 4.1 and SD = 0.7. The highest mean indicates strong agreement that training delivery supports long-term retention and application of knowledge. The low standard deviation reflects widespread consensus, highlighting this as a significant strength in TaTU's training framework.

The fourth item on the questionnaire on training delivery methods/styles for employees at TaTU, Q4 (tailored delivery), had Mean = 3.6 and SD = 1.0. Responses suggest moderate agreement on whether training delivery is tailored to employees' needs and preferences. The higher variability may reflect diverse experiences or perceptions of how effectively individual needs are addressed in training programmes.

The fifth item on the questionnaire on training delivery methods/styles for employees at TaTU, Q5 (contribution to organizational goals), had Mean = 3.8, SD = 0.9. Respondents largely agree that the training delivery helps employees contribute to organizational goals. However, the variability suggests there may be differing levels of clarity or alignment in how this connection is communicated and realized.

Q3 (retention and application support) is the strongest area, with a high mean and low variability, indicating that training delivery effectively supports employees in retaining and applying knowledge. Q2 (engagement and learning objectives) also performs well, suggesting that training sessions are engaging and meet their intended outcomes. Q4 (tailored delivery) has the lowest mean and highest variability, suggesting that some employees feel their unique needs and preferences are not adequately addressed in training delivery. This could point to a one-size-fits-all approach that may not resonate with all staff. The mixed perceptions on Q1 (delivery execution) highlight the need for consistent quality in training execution.

4.2.4 Training Evaluation of Employees at TaTU

The fourth objective of the study sought to identify the impact of training evaluation on the performance of junior staff at TaTU. The descriptive statistics for the training evaluation of employees at Tamale Technical University (TaTU) provide insights into the perceptions of the effectiveness and thoroughness of the evaluation process.

Table 4.6: Training Evaluation of Employees at TaTU

le of Training Evaluation in Improving iff Performance	**Observations**	**Mean**	**Standard deviation**	**Minimum**	**Maximum**
.. Evaluation of training needs assess	268	3.4	1.0	1	5
Q2. Evaluation of training design	268	3. 6	0.9	2	5
Q3. Evaluation of delivery methods	268	3.8	0.8	2	5
Q4. Evaluation of learning outcomes	268	3.7	0.9	2	5
Q5. Evaluation of knowledge application	268	3.5	1.0	1	5
Q6. Training effectiveness assessment	268	4.0	0.7	3	5
Q7. Evaluation for continuous improvement	268	4.2	0. 6	3	5

Mean scores range from 3.4 to 4.2, indicating that respondents generally agree with the statements about training evaluation. However, there are variations in agreement across specific items.

Standard deviations range from 0.6 to 1.0, suggesting moderate to high consensus among respondents, with less variability in items Q6 and Q7.

The first item on the questionnaire assessing training evaluation at TaTU, Q1 (evaluation of training needs assessment), had Mean = 3.4 and SD = 1.0. Respondents somewhat agree that TaTU evaluates whether training needs assessments are done before training. However, the higher standard deviation indicates mixed responses, suggesting room for improvement in this area.

The second item on the questionnaire assessing training evaluation at TaTU, Q2 (evaluation of training design), had Mean = 3.6 and SD = 0.9; a slightly stronger agreement that TaTU evaluates whether training design is properly done. However, the variability suggests that not all respondents believe this is consistently practiced.

The third item on the questionnaire assessing training evaluation at TaTU, Q3 (evaluation of training delivery methods), had Mean = 3.8 and SD = 0.8; a higher agreement with moderate variability that training delivery methods are evaluated. This indicates recognition of efforts in this area, but some gaps might still exist.

The fourth item on the questionnaire assessing training evaluation at TaTU, Q4 (evaluation of learning outcomes), had Mean = 3.7 and SD = 0.9. Respondents agree that TaTU evaluates whether participants acquire new knowledge, skills, or behaviours. However, the variability suggests differing experiences with how consistently this evaluation is performed.

The fifth item on the questionnaire assessing training evaluation at TaTU, Q5 (evaluation of knowledge application), had Mean = 3.5 and SD = 1.0. This item, focused on evaluating how participants apply knowledge, has a slightly lower mean and higher variability, indicating mixed perceptions. This could reflect challenges in tracking and measuring post-training application.

The sixth item on the questionnaire assessing training evaluation at TaTU, Q6 (training effectiveness assessment), had Mean = 4.0 and SD = 0.7. A high mean and low variability suggest a strong consensus that TaTU assesses the effectiveness of its training programmes in meeting intended objectives. This indicates confidence in the organization's efforts in this regard.

The seventh item on the questionnaire assessing training evaluation at TaTU, Q7 (evaluation for continuous improvement), had Mean = 4.2 and SD = 0.6. The highest mean and lowest standard deviation indicate strong agreement and consensus that TaTU evaluates the impact of training to improve future initiatives. This is a positive reflection of the institution's commitment to optimizing its training efforts.

Evaluation for continuous improvement (Q7) and training effectiveness (Q6) are perceived as strong areas, with high agreement and low variability. These results suggest that TaTU is prioritizing post-training evaluations to ensure alignment with organizational goals and to refine future programmes. Lower scores and higher variability for Q1 (training needs assessment) and Q5 (application of knowledge) suggest that these areas could benefit from greater focus. Mixed responses on whether training needs are adequately assessed may indicate a need for more systematic pre-training evaluations. Addressing challenges in tracking the practical application of training outcomes (Q5) could further enhance the perceived effectiveness of TaTU's evaluation process.

4.3 The Effect Training on Performance

The findings of the training-performance regression analysis are shown in Table 4.7. Assessment of training needs, design, delivery, and evaluation are the different categories into which training has been divided.

Table 4.7: Results of the Regression Analysis of Training on Performance

Performance	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
Assessment	2.060702	.3561985	5.79	0.000	1.359339	2.762066
Design	.4096603	.2839982	1.44	0.150	-.1495392	.9688598
Delivery	-1.086798	.3920455	-2.77	0.006	-1.858745	-.3148504
Evaluation	.1097452	.1677733	0.65	0.514	-.2206046	.440095
_cons	4.730822	1.535713	3.08	0.002	1.706965	7.754679

4.3.1 The Effect of Training Needs Assessment on Performance

According to Table 4.7, the training needs assessment coefficient is 2.060702. With all other factors held equal, it indicates that the dependent variable (performance) should rise by roughly 2.06 units for every unit increase in training needs assessment. 0.3561985 is the coefficient estimate's standard error. 5.79 is the t-statistic for this coefficient. This indicates that the distance between the coefficient and zero is 5.79 standard deviations. The p-value is 0.000, meaning that while the coefficient is statistically significant at standard levels (0.05), the researcher has a 95% confidence that the true coefficient falls between 1.359339 and 2.762066.

4.3.2 The Effect of Training Design on Performance

According to Table 4.7, the coefficient of training design is 0.4096603, meaning that, when all other variables are held constant, the dependent variable (performance) should increase by about

0.41 units for every unit increase in training design. The standard error of the coefficient estimate is 0.2839982, and the t-statistic for this coefficient is 1.44, meaning that the coefficient is 1.44 standard deviations from zero. The p-value is 0.05, meaning that the researcher is 95% not confident that the true coefficient lies between -0.1495392 and 0.9688598, given that the interval includes zero, confirming that the effect may not be significant at (0.05).

4.3.3 The Effect of Training Delivery Style on Performance

The training delivery style coefficient, as determined by Table 4.7, is -1.086798. The dependent variable (performance) is predicted to drop by roughly -1.09 units for every unit increase in training delivery method, assuming all other factors remain same. 0.3920455 is the coefficient estimate's standard error. -2.77 is the t-statistic for this coefficient. The coefficient is -2.77 standard deviations from zero, according to this. Because the interval contains zero, the p-value of 0.06 indicates that the researcher is 95% not convinced that the true coefficient resides between -1.3148504 and -1.858745, confirming that the effect might not be significant at (0.05).

4.3.4 The Effect of Training Evaluation on Performance

The training evaluation coefficient, as shown in Table 4.7, is 0.1097452. Holding all other factors equal, it indicates that the dependent variable (performance) should drop by roughly 1.11 units for every unit increase in training evaluation. 0.1677733 is the coefficient estimate's standard error. 0.65 is the t-statistic for this coefficient. This indicates that the distance between the coefficient and zero is 0.65 standard deviations. The effect might not be significant at (0.05), as the p-value is 0.514 greater than 0.05, meaning that the researcher is 95% not convinced that the true coefficient is between -0.2206046, 0.440095, since the interval includes zero.

4.3.4 The Constant or Intercept

The constant, or intercept, is 4.730822, according to Table 4.7. The dependent variable (performance) is therefore predicted to be roughly 4.73 units when all of the predictor variables are zero. 1.535713 is the coefficient estimate's standard error. 3.08 is the t-statistic for this coefficient. This indicates that the coefficient's distance from zero is 3.08 standard deviations. With the p-value of 0.002, the researcher can be 95% certain that the intercept, which falls between [-1.706965 and 7.754679], is statistically significant.

4.4 Discussion of Results

Training needs assessment shows a statistically significant positive coefficient (2.060702), meaning that the dependent variable rises by about 2.06 units for every unit of training requirements assessment. The statistical significance of this link is demonstrated by the t-value of 5.79 and the p-value of 0.000. Finding skill gaps and matching training programmes to organizational requirements depend heavily on training needs assessment (TNA). Following such training needs assessment, the university may develop more relevant and appropriate training on practitioners, especially junior staff. Not only does this help in effective resource optimization for Training but also helps ensure that training interventions are tailor-made and relevant to the end-users. The literature supports this perspective that effective TNA leads to training programmes that better align with performance needs and better outcomes (Goldstein & Ford, 2002; Holton, 2005).

Training outcomes are enhanced by a properly executed TNA, which guarantees the efficient distribution of training resources (Goldstein & Ford, 2002). Research shows that a comprehensive TNA leads to better-targeted training interventions, resulting in improved employee performance

and organizational effectiveness (Holton, 2005). Management at TaTU should prioritize refining their training needs assessment processes to enhance training outcomes. Ensuring that assessments accurately reflect employees' needs can lead to more effective and impactful training programmes.

With a statistically significant negative coefficient of -1.086798 for training delivery, the dependent variable falls by about 1.09 units as delivery rises. These negative effects are confirmed by the t-value of -2.77 and the p-value of 0.006. Effective training delivery is critical to ensuring that training content is properly conveyed and absorbed. If delivery methods are ineffective or poorly implemented, they can lead to decreased training effectiveness (Baldwin & Ford, 1988). Issues such as inadequate training materials, ineffective instructional methods, or logistical problems can negatively affect training outcomes (Noe, 2017). TaTU should review and enhance their training delivery methods to mitigate any adverse effects. Ensuring that delivery methods are engaging, relevant, and well-executed can improve the overall effectiveness of training programmes.

Efforts should concentrate on improving training delivery and assessment since they are important predictors. If training evaluation, for example, refers to assessing employee performance, then better assessment procedures may improve results overall. On the other hand, if training delivery is associated with a service or product, resolving issues that negatively impact delivery may lessen its negative effects. A positive correlation between training design and the dependent variable is indicated by its coefficient of 0.4096603, although this impact is not statistically significant (t-value of 1.44 and p-value of 0.150). Training design is crucial for creating effective training programmes. A well-designed training programme addresses learning objectives, incorporates relevant content, and uses appropriate instructional methods (Clark & Mayer, 2016). While training design is important, its impact may vary depending on other factors such as delivery

methods and participant engagement. In some cases, it may not show a strong direct effect if other variables overshadow its influence (Salas et al., 2012). Although training design did not show a significant effect in this model, it remains important. TaTU should ensure that training programmes are well-designed to address learning objectives and engage participants effectively.

The dependent variable is slightly positively impacted by training evaluation, as shown by its coefficient of 0.109 7452. However, with a t-value of 0.65 and a p-value of 0.514, this effect is negligible. Training evaluation is critical for assessing the effectiveness of training programmes and identifying areas for improvement. It helps in understanding whether training objectives are met and how well training translates into performance improvements (Kirkpatrick & Kirkpatrick, 2016). Despite its importance, training evaluation might not always show immediate effects or may require more refined methods to capture its true impact (Phillips & Phillips, 2016). While training evaluation did not show significant effects in this model, it remains essential. TaTU should continue evaluating training programmes to ensure their effectiveness and make necessary adjustments based on evaluation results.

Training design and training evaluation's non-significant results imply that their impact may be less than first believed. These characteristics may still be important, though, in other situations or when paired with other elements. Investigating their function in various models or with various approaches can be worthwhile.

When all predictors are zero, the predicted value of the dependent variable is represented by the constant term, 4.730822. This intercept's t-value of 3.08 and p-value of 0.002 indicate that it is statistically significant. When the predictor variables are not present, the constant term in regression analysis denotes the dependent variable's baseline level. It provides a reference point

for understanding the impact of predictors (Kutner, Nachtsheim, Neter & Li, 2005). The significant intercept suggests that there are inherent factors affecting the dependent variable even when predictors are absent. This baseline information can help in contextualizing the impact of various predictors.

The regression analysis highlights the significant impact of training needs assessment and training delivery on training outcomes, with assessment positively influencing and delivery negatively affecting the dependent variable. Despite not being statistically significant in this model, training design and evaluation may still be useful in other models or circumstances. The existence of baseline effects is highlighted by the substantial constant term. These insights can guide TaTU in focusing on optimizing training needs assessment and improving training delivery to enhance overall training effectiveness. Enhancing the delivery of training programmes can help mitigate any negative impacts and improve overall training effectiveness. Literature highlights that well-implemented delivery methods are crucial for maximizing the benefits of training (Baldwin & Ford, 1988; Noe, 2017).

4.5 Conclusion

The analysis of training factors influencing performance at TaTU reveals significant insights that can guide the development and enhancement of training programmes. The regression analysis identified key predictors with varying impacts on training outcomes, providing a clear direction for future improvements. TaTU should prioritize improving their training needs assessment processes to enhance training effectiveness. Ensuring that training is tailored to accurately identified needs can lead to better outcomes. Efforts should be directed towards refining Training

delivery methods to address and minimize any negative impacts. Effective delivery mechanisms are crucial for maximizing the benefits of training. Although training design and evaluation were not significant in this model, their importance in the broader context of training cannot be ignored.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

This chapter provides the study's overview, findings, and suggestions. The chapter begins by providing an overview of the research. The study's findings are used to draw conclusions, which then serve as the basis for recommendations. There are recommendations for additional research.

5.1 Summary

The purpose of the study was to investigate role of training in improving performance of employees of TaTU. The specific objectives include: (1) Investigate how training needs assessment affects performance of junior staff at TaTU. (2) Examine the effect of training design on performance of junior staff at TaTU. (3) Find out the effect of training delivery style on performance of junior staff at TaTU. (4) Identify the effect of training evaluation on performance of junior staff at TaTU. The study adopted a simple theoretical framework on the basis of positivism, which assumes that phenomena are observable and measurable through statistical methods. The study employed a quantitative research design. From a population of 880, the sampling strategy used was stratified random sampling which involved dividing the junior staff population into different strata based on relevant characteristics such as department, job role, and experience level. A random sample was then drawn from each stratum to ensure representation across these categories. A total of 268 junior staff members were surveyed to capture data on various training factors related to staff performance. The data was analysed using regression analysis.

The results suggest that TaTU has a motivated workforce eager to develop skills that align with their career growth and organizational goals. However, addressing time constraints and improving pre-training needs assessments can further enhance the effectiveness of training programmes. By leveraging existing strengths and addressing gaps, TaTU can foster a more impactful and employee-centred training needs assessment process.

The results highlight that TaTU's training design development is largely effective, particularly in aligning with organizational objectives and maintaining relevance. However, areas like tailoring programmes to employee needs and addressing the effectiveness of past training require attention. By leveraging its strengths and addressing these gaps, TaTU can enhance its training design framework, leading to more effective employee development and improved organizational outcomes.

The results show that TaTU's training delivery methods are generally well-received, with strong alignment to retention and learning objectives. However, addressing areas of variability—such as tailoring to individual preferences and ensuring consistent execution—can further enhance the effectiveness and impact of training delivery. By leveraging its strengths and refining areas of improvement, TaTU can ensure that its training delivery methods continue to support both employee growth and organizational success.

The results show that TaTU has established a foundation for evaluating its training programmes effectively, with particular strengths in assessing overall effectiveness and using evaluations for continuous improvement. Addressing gaps in pre-training needs assessment and post-training application tracking will further enhance the institution's training evaluation framework, leading to improved staff performance and organizational success.

Regression analysis was used in the study's quantitative research design to assess how different training parameters affected the performance of junior staff members. The population comprised junior staff members at TaTU. The study employed a stratified random sample technique to guarantee representation from various levels and departments. In addition to performance measures, questionnaires were used to gather information on training needs assessment, training delivery, training design, and training evaluation. To ascertain the significance and strength of the associations between the training components and employee performance, regression analysis was performed. By guaranteeing respondents' informed consent, confidentiality, and voluntary participation, the study complied with ethical guidelines.

Training results were positively impacted by training needs assessment in a statistically significant way. Effective needs assessment is critical for enhancing training performance. Training delivery showed a statistically significant negative impact on training outcomes. Problems in delivery methods can adversely affect training effectiveness. According to the results, TaTU should concentrate on enhancing training needs assessment and resolving issues with training delivery in order to maximize training results. Despite their lack of significance in this model, training design and evaluation are nevertheless crucial for a thorough training strategy.

5.2 Conclusion

A good TNA ensures that training interventions are targeted and only taught as per the identified skills gap, but also how does it align with organizational goals. The TNA shows positive effect which represents TaTU must put effort in improve its needs assessment processes.

This significant negative impact suggests that issues related to the delivery of training—such as ineffective methods, poor execution, or logistical problems—can undermine the effectiveness of training programmes. TaTU must address and enhance its delivery techniques in order to prevent detrimental effects on training outcomes, as indicated by the negative link with training delivery. This could involve evaluating and refining delivery techniques, ensuring that they are engaging, relevant, and effectively communicated.

Training design showed a positive but non-significant coefficient demonstrating that although there is a favourable correlation with training results, it is not statistically significant. This implies that the dependent variable may not be significantly impacted directly by training design alone. Although training design did not show significant effects in this analysis, it remains an important component of effective training programmes.

An appropriate training plan is important which will meet the learning objectives and content relevance. If TaTU wants to deepen our examination of what design means and how it works, then we should still engage each other in a dialogue about sound training design principles but perhaps extend beyond the scope of design to consider its interaction with delivery, needs assessment or any number of related factors. Future studies may benefit from examining the training design construct with other (intervening) variables or methods to better reflect its potential effects (Clark & Mayer, 2016; Salas et al., 2012).

Although training evaluation has an important influence of the dependent variable it may not have a direct influence. Even the statistical insignificance, training evaluation is one of the most important tools for measuring and evaluating the effectiveness of your training programmes. Best practices in evaluation helps to identify what is good and what needs improvement for training

interventions. Management of TaTU should continue to implement strong evaluation practices in order to assess whether training programmes are achieving their goals and improving broader organizational performance. Supported by all available literature, evaluation remains a key area which drives continual improvement and supports effective assessment against performance metrics (Kirkpatrick & Kirkpatrick, 2016; Phillips & Phillips, 2016).

The results obtain from the regression analysis provide some understanding on what matters for training outcomes at Tamale Technical University. We know that training needs assessment plays a huge role in the effectiveness of training. By better defining the programme, it is less likely to miss its target. On the other hand, training delivery has an adverse effect demonstrating that TaTU must improve its delivery of training so that it does not take away all the values of a good training. Even if training design and training evaluation are not directly affecting the other variables in this model, we cannot get along without them on a training approach as they are essential elements. Training design provides the building foundations of training programmes and training evaluation is important for a continual process of assessment and improvement.

TaTU must do both an assessment of training needs and further consider suitable delivery approaches which will optimize the outcomes of this fundamental aspect. Although training design and training evaluation may not be having an immediate big effect, there is no justification for ignoring them in broader strategies of the adoption of effective training design in organizations. In this way, TaTU can improve their training programmes and performance, and the entire organization will become more effective. These factors were well described, but as evidenced by the results and study design, are worth studying in more depth with possibly different variables or methods to better characterize training efficacy.

5.3 Recommendations

The recommendations provided below on the improvement of training programme effectiveness are based on the conclusions of the study.

It is recommended to Management of TaTU to introduce flexible training schedules, including online or modular training sessions, to accommodate employees with tight schedules. It is recommended that to enhance pre-training needs assessments, Management of TaTU need to develop a standardized and comprehensive needs assessment process to identify skill gaps and align training programmes more effectively with employee and organizational needs. To strengthen communication of training objectives, Management of TaTU need to clearly articulate the goals and expected outcomes of training programmes to employees to increase understanding and engagement.

Management of TaTU need to conduct a detailed evaluation of previous training programmes to identify specific areas of ineffectiveness (e.g., content relevance, applicability, or delivery quality). Use employee feedback to inform improvements. To maintain strategic alignment, Management of TaTU need to continue to align training design with organizational goals, as this is a key strength. Use this alignment as a foundation for designing future training programs.

To enhance personalization, Management of TaTU need to improve efforts to tailor training design to individual needs and learning preferences. Conduct needs assessments and pre-training surveys to gather input from employees and integrate this feedback into programme development. To foster engagement and communication, Management of TaTU need to ensure clear communication about how training designs are developed and their relevance to employees' roles. This could enhance perceptions of the relevance and inclusivity of training programmes. To standardize training

delivery, Management of TaTU need to develop clear guidelines for training delivery to ensure consistency across sessions and trainers. Regular assessments of trainers' delivery styles could help achieve this.

To increase personalization, Management of TaTU need to conduct pre-training surveys or focus groups to better understand the diverse needs and learning preferences of employees. Incorporate these insights into the design and delivery of training programmes. To highlight organizational alignment, Management of TaTU need to strengthen the connection between training delivery and organizational goals. Explicitly communicate how training helps employees contribute to broader institutional objectives to enhance buy-in. To leverage existing strengths, Management of TaTU need to maintain the focus on training methods that support retention and application of knowledge, as this is a clear strength. Consider sharing success stories or examples to reinforce the perceived value of training delivery.

To enhance pre-training evaluations, Management of TaTU need to strengthen the process of assessing training needs to ensure alignment with employee roles and organizational goals. Improve communication of these assessments to staff to foster greater confidence in the training process. To track knowledge application, Management of TaTU need to develop mechanisms to monitor and measure how training participants apply new skills and knowledge in their roles.

Management of TaTU need to consider follow-up evaluations and feedback sessions with staff and managers to assess long-term impact. To leverage strengths for continuous improvement, Management of TaTU need to use insights from these evaluations to further tailor training programmes to staff needs and organizational objectives. To engage staff in the evaluation process,

Management of TaTU need to encourage staff participation in designing evaluation criteria to ensure the process is inclusive and reflective of their perspectives.

5.4 Further Research

Future researchers may want to look into non-linear modelling approaches or whether variable covariates could give insight between the complex associations within the data. Future researchers may pose additional questions that will help to elucidate factors driving training effectiveness such as how long the training is, what content is relevant and whether it should occur in an online or face-to-face format. This could define the most effective elements of training (Neuman, 2014). Future research can investigate the use of technology in their training programmes (e-learning platforms, virtual simulation). Williams and Martin (2024) discovered in their research that making training more digital could make a significant impact on how accessible and convenient it is, which may help junior staff in ways to increase performance.

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APPENDICES

APPEDIX A:

QUESTIONNAIRE ON EFFECTS OF TRAINING IN IMPROVING EMPLOYEE PERFORMANCE IN TAMALE TECHNICAL UNIVERSITY

Serial Number…….

r Sir/Madam,

; questionnaire is being used to gather information about effects of Training and Development in roving employee performance in Tamale Technical University as part of the fulfillment of the iirements of Master of Philosophy in Training and Development in the University for Development lies. You are assured that your responses will be treated as confidential. This data collection is for lemic purpose only. Please feel free to provide candid responses. Thank you for your co-operation.

Section A: Socio - Demographic Profile of Respondents

Sex: Male ☐ Female ☐

Age of respondents: ……..

Category of Staff: Senior Member (Teaching staff) ☐ Senior Member (Non-Teaching Staff) ☐

4. Position: Head of Department/Unit/Section ☐ Dean ☐ Assistant Registrar ☐

Senior Assistant Registrar ☐ Deputy Registrar ☐

Other ranks/position (please specify) ……

5. Length of work experience in the university…….....

6. Have you participated in any training or development programmes in the past year?

Section B: Training Needs Assessment

On a scale of **0-5** where 1 indicates **least agreement,** 5 indicates **strong agreement** and **0** indicates **Not Applicabe.** Please respond to each item by circling the number that best describes your opinion.

le of Training Needs Assessment in improving rformance	**0**	**1**	**2**	**3**	**4**	**5**
1. There are specific skills employees feel are essential for their roles they currently lack or need improvement on						
2. There are new skills or technologies relevant to employee jobs that they would like to learn						
3. There are changes in employee job responsibilities that require new skills or knowledge						
4. There are time constraints or scheduling issues that affect your ability to participate in training						
There are skills that are important for future career growth of TaTU						
There are specific initiatives or strategic directions TaTU is moving towards that require new skills or knowledge						
7. TaTU carries out training needs assessment before conducting any training.						
8. TaTU gathers comprehensive information to understand the specific requirements and goals of the training it provides its junior staff						
9. Training TaTU provides its junior staff helps them perform their roles effectively and efficiently						

Section C: Training Design Development

On a scale of **0-5** where 1 indicates **least agreement,** 5 indicates **strong agreement** and **0** indicates **Not Applicable.** Please respond to each item by circling the number that best describes your opinion.

le of Training Design Development in improving staff rformance	**0**	**1**	**2**	**3**	**4**	**5**
1. There are aspects of past training programmes that you found less effective or not useful						
2. TaTU's training design is comprehensive and relevant						
3. TaTU training design is aligned with both immediate learning needs and long-term organizational objectives						
4. TaTU tailors the approach to training the needs and preferences of its employees in designing training programmes						
5. TaTU factors the feelings and preferences of employees on training styles (visual, auditory, kinesthetic) in designing its training programmes						

Section D: Training Delivery Methods/Styles

le of Training Delivery Methods in improving staff rformance	**0**	**1**	**2**	**3**	**4**	**5**
1. TaTU's training delivery methods are always perfectly executed the organization						
2. TaTU trainers always design a delivery style that not only meets the learning objectives but also engages participants effectively						
3. TaTU trainers always design a delivery style that supports long-term retention and application of knowledge.						
4. TaTU tailors the training delivery to needs and preferences of its employees in designing training programmes						
5. TaTU's training delivery helps employees contribute to the overall goals of the organization						

Section E: Training Evaluation

Role of Training Evaluation in improving staff performance	**0**	**1**	**2**	**3**	**4**	**5**
1. Evaluation is done on whether training needs assessment was sufficiently done before training						
2. Evaluation is done on whether training design was properly done before training						
3. Evaluation is done on whether training delivery methods were well executed by the organization						
4. TaTU trainers always evaluate training programmes to determine whether participants acquired new knowledge, skills, or behaviours as a result of the training						
5. Evaluation is done to determine how successfully participants applied the knowledge and skills gained from training to their jobs at TaTU						
6. Training evaluation is done by TaTU after every training to assess the effectiveness of training programmes in meeting their intended objectives.						
7. Evaluation of the impact of their training helps TaTU to continuously improve and optimize future training initiatives.						

APPENDIX B:

Letter of Introduction

UNIVERSITY FOR DEVELOPMENT STUDIES
FACULTY OF EDUCATION
EDUCATIONAL MANAGEMENT AND POLICY STUDIES

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Email: jquansah@uds.edu.gh
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P.O. Box TL1350
Tamale
Northern Region
Ghana, West Africa

Our Ref: .....
Your Ref: .....

DATE: 19th July, 2024

The Registrar,
Tamale Technical University,
Tamale

Dear Sir,

LETTER OF INTRODUCTION

The bearer of this letter, Mr. Latif Osman is a postgraduate student studying at the Department of Educational Management and Policy Studies at the University for Development Studies (UDS).

He requires some information from some staff in the Tamale Technical University to write her thesis titled "**Effect of Training in improving Junior Staff Performance in Tamale Technical University in the Sagnarigu Municipal**" as a requirement for his MPhil in Training and Development programme.

Kindly give Mr. Latif Osman the necessary assistance to enable him gather the needed information for the research.

I would greatly appreciate it if you could provide the required assistance for his data collection in your institution. Thank you.

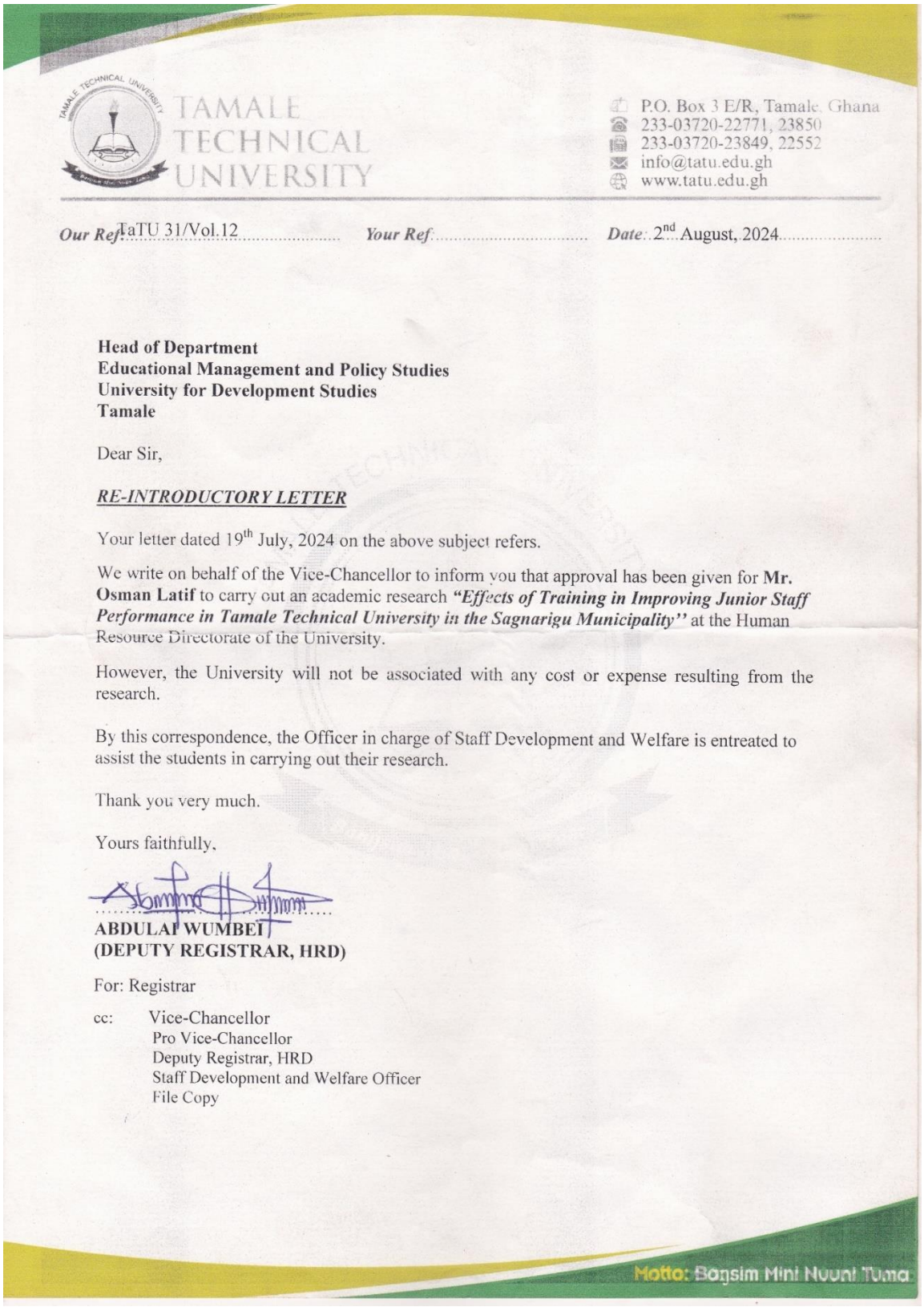
Yours faithfully,

Joseph Yaw Dwamena Quansah (PhD)
Head of Department

H O D
Educational Mgt. & Policy Studies
U D S
Faculty Of Education

APPENDIX C:

Re-introductory letter



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Our Ref: TaTU 31/Vol.12 *Your Ref:* *Date:* 2nd August, 2024

Head of Department
Educational Management and Policy Studies
University for Development Studies
Tamale

Dear Sir,

RE-INTRODUCTORY LETTER

Your letter dated 19th July, 2024 on the above subject refers.

We write on behalf of the Vice-Chancellor to inform you that approval has been given for **Mr. Osman Latif** to carry out an academic research ***"Effects of Training in Improving Junior Staff Performance in Tamale Technical University in the Sagnarigu Municipality"*** at the Human Resource Directorate of the University.

However, the University will not be associated with any cost or expense resulting from the research.

By this correspondence, the Officer in charge of Staff Development and Welfare is entreated to assist the students in carrying out their research.

Thank you very much.

Yours faithfully,

ABDULAI WUMBEI
(DEPUTY REGISTRAR, HRD)

For: Registrar

cc: Vice-Chancellor
Pro Vice-Chancellor
Deputy Registrar, HRD
Staff Development and Welfare Officer
File Copy

Motto: Bangsim Mini Nuuni Tuma