
Training Gap Identification as Determinant of Employees' Job Performance in Gas and Energy Company in Delta State, Nigeria

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Abstract: The eventual goal of every organization is to attain comparative achievement and be ahead of its competitors while maintaining sustainable productivity through a competent workforce. The crucial attributes of the business and its terrains at the recent times are such that any organization that will continue to be in existence and thrive amidst the dynamism in the environment must keep upskilling and reskilling its employees. The study examines effect of selection procedure of employee for training for organizational performance in gas and energy company in Delta State, Nigeria. This study uses a sample of 254 employees selected representing the entire population of 694. A validated and reliable questionnaire instrument was employed to gather data. Two hypotheses were tested. One-sample test was used to test the hypotheses formulated in the study. Findings from the study reveal that the extent to which unsystematic approach to employee training affected organizational productivity was high. This was statistically supported by the one-sample test at 0.05 ($Z_c=8.246 < Z_t=0.000$). Again, the extent of effect of training design on employee productivity was high. The one-sample test ($Z_c=0.679 < Z_t=0.730$; $\alpha=0.05$) confirms this assertion. Therefore, the study assesses the effect of training gap identification as determinants of employees' job performance in gas and energy company in Nigeria Delta State. The study concludes that the concern organizations and others in general should ensure that deserving employees are sent on training through the systematic training procedure of identifying and selecting employees for training, which could lead to a significant improvement on the organizational performance. Hence, the study recommends that biases should be discouraged as employee gap analysis should be the criteria for training need identification.

Keywords: Employees Performance, Gas and Energy Company, Training Procedure, Training Need Identification

1. Introduction

Employee training is a strategy of improving work performance and maximizing human capital. Because training and organizational performance are consistently linked; employees must continually gain new personal information, acquire new abilities, and accept training in order to sustain peak work performance. However, there are a few issues regarding this strategy. How beneficial is the training that has been provided? Is it true that upskilled will enhance employees' skills on their jobs? How do trainers ensure that the training they deliver fits the needs of their trainees? Will

training result in a new set of challenges for the company? The following are the key to unlocking the myth of training. Are training employees get based on a needs assessment? Are problem-solving skills among training professionals' objectives? Do they take the time to assess training requirements? The goal of a training needs analysis is to figure out what kind of training your employees actually require [1]. Training, training, and more training are all integral part of the job. People frequently believe that training can fix organizational issues. Is training, on the other hand, truly effective in resolving issues? What types of themes should be included in training? What if, following training, employees

maintained usual work behaviour? Training is regarded as employee welfare in many organizations, yet employees often believe that engaging in training is a hardship or a waste of time; hence, usefulness of training is continually questioned. Furthermore, excessive training will lead to degeneracy rather than benefit [2]. The effectiveness of training is measured by how successfully it is applied once it is completed, as well as the length of time it takes to apply it, which varies depending on the relationship between the content of the training and the job that a person holds.

It is believed that just 10% effect to 15% effect of training knowledge is retained for a year [3]. Training will not be effective unless management implements regular training and adopts straightforward training content [1]. Furthermore, overtraining will aggravate trainees' suffering and erode their faith in training courses [4]. Hence, rather than focusing on the types and quantity of training, modern training should help solve organizational challenges and improve performance. Training is ineffective and inefficient if it does not produce high level results. To this effect a new performance-based training model must be established, with a focus on training needs, in order to appropriately upskill employees and provide training benefits [5]. If TNA (training need identification) are not deployed in an organization's training, then, it results to over training, insufficient training, and incomplete training [6, 7]. Few past studies have reported four reasons for applying TNA: (1) establishing the true problems in an organization, (2) gaining management support, (3) developing assessment data, and (4) determining the cost and benefit of training. Training requirements are the same as learning requirements, but learning is not the same as training. Learning, properly defined, includes training, and training is one of several strategies for facilitating learning [8]. The first step in creating a successful training course is to assess your needs. It can be used to set learning objectives, create training courses, and assess how well training is implemented. In the meantime, it allows managers and learners to interact with one another and participate in organizational operations [1]. The following are some of the advantages of a good TNA [9, 10]. (1) Increasing management commitment to allow participants to continue to participate in training and development, (2) raising the visibility of training functions, (3) elaborating critical organizational issues, (4) making the best use of limited organizational resources, (5) providing training courses and training design ideas, (6) transforming training into strategies, (7) providing employees with the knowledge and skills they need to perform their duties, (8) assisting an organization in determining its performance goal, and (9) improving employee relations and morale. Is training beneficial? Is training capable of assisting a company in resolving its challenges? What is the difference between organizations that do not provide training and those that do? Before answering these questions, it is important to consider whether a training needs analysis should be undertaken before a training course is designed, and whether there's a consistent link between the training delivered and organizational challenges.

1.1. Statement of the Problem

The acknowledgment of the consequence and outcome of training and development in recent years has been influenced strongly by the boosting of vigorous competition and the corresponding success of organizations where priority is laid on employer investing more on employee development. The human capital department of the organisation should have a standard plan and ensure that they have capable supply of employee that is qualified and well skilled for the position. They must be technically and socially also capable of career development into specialist departments or management positions. The process of staff development, training, and coaching of employees is a crucial aspect of this process that is ongoing or constant. Employee perceptions about training and development have a significant effect on the company's success [11, 12]. The acceptance and contentment of training and development policies by employees will have a favorable effect on the productivity of the firm. Employee attitudes and perceptions influence whether they engage in positive or bad behaviour. How do employees feel about the company's employee training policies? How seriously does the organization's management take its training policy? Some perceive training and development as a waste of time and resources that could have been better spent on the production of profit-generating goods and services. The worry that an employee would leave the company after training has an effect on employee training, making it unplanned and unsystematic [13].

In the study organization, the human resource department or managers in charge of employee training must ensure a good employee training selection procedure and process that is not biased in identifying those employees who require training. Employees, on the other hand, may attend training for personal purposes such as personal enrichment or preparation for other employment in other organizations; Because he/she knows the person in charge of training, rather than because there is a skill gap that has to be filled through training, he/she engages in power play/politics. Frequently, the human resources department does not examine training needs (TNA). This is for the advantage of the organization, which must pay close attention to employee training selection criteria, which must be systematic and free of bias, in order to meet or surpass expectations and management need to ensure that the right candidates are sent for relevant training in their field to have positive effect on organizational performance.

Previous studies have focused on the importance and advantages of training, but no research has been conducted on the obstacles faced by HR departments of gas and energy companies in selecting people for training. To close this gap, the researcher is compelled to conduct a study on the effect of employee training on organizational performance in gas processing plants in Delta State, with a focus on processes and procedures for identifying skill gaps, training design and delivery style, and employee perceptions of training. This study aims to investigate the effect of personnel selection procedures for training on employee and organizational

performance at the study organisations.

1.2. Research Questions

The study was guided by the following research questions:

- 1) to what extent does the employee selection procedure for training have an effect on organizational performance in the study organization?
- 2) to what extent does the training design improve organizational performance in the study organization?

1.3. Objectives of the Study

The study's major goal is to look into the effect of employee training on organizational performance, with a particular focus on the processes and procedures used to select individuals for training. However, the study area's specific objectives are to:

- 1) determine the effect of the employee training selection process on organizational productivity.
- 2) assess the effect of training design on employee performance.

1.4. Research Hypotheses

The following hypothesis was formulated to examine the statistical significance and validity of the aforesaid study objectives. The following five hypotheses were developed and tested in order to meet the study's goals.

H₀1: Employee training selection has no significant effect on company productivity.

H₀2: Organizational productivity is significantly influenced by training design.

2. Review of Relevant Literature

2.1. Concept Review

2.1.1. Organizational Performance as a Concept

As the desired aim of the needs analysis, the idea of organizational performance becomes significant and necessary in this study. On this foundation, it is required to comprehend the concept of organizational performance, which is made up of two parts: performance conceptions and organizational concepts. Performance is a person's overall result or success rate in carrying out a task over a period of time when compared to numerous alternatives, such as work standards, targets, or criteria that have been defined in advance and mutually agreed upon [14]. An organization is a system having a structure, members, tasks, and roles that are all mutually coordinated to achieve a common purpose that involves more than two individuals who share common interests and work together. Organizational performance is defined as the accomplishment of the work of a component and member organizations that undertake diverse tasks in conjunction with the goal of achieving the expected objectives, which in this case is the organization's goal. This implies that organizational performance is a goal that must be achieved by every member of the organization, so it is necessary to

demonstrate the work of the activities of cooperation in accordance with the level of importance and the needs of the tasks and functions of each person in the organization [15].

2.1.2. The Training Needs Analysis Concept

Assessment of Training Needs is a concept that has been around for quite some time. The concepts of analysis, training, and needs must all be described simply in order to grasp the notion of Training Needs Analysis. Analysis is a full evaluation that has been standardized by the rules and regulations of a process that will be used or pursued. Needs are the fulfillment demands of the goals that must be met as a result of a procedure that has been evaluated. While training is a set of methodical, coordinated, and structured activities designed to educate and train someone to achieve a specific goal [16, 17]. The major feature of TNA that contributes to improving an organization's performance is training activity that is planned in line with the training design process, which is a systematic way to developing training programs. The training process is as follows: (1) organizational analysis, job analysis, and individual analysis are all required assessments. (2) Ensure human resource readiness in order to accomplish organizational development in training implementation. (3) Creating a learning environment through setting training objectives and outcomes, relevant material, practice, feedback, peer observation, and program implementation and coordination. (4) Ensure that training is transferred in order to apply the organization's management plan, work management, and competency management. (5) Choosing training methods such as the presentation method, the hands-on approach, and the way that provides reinforcement groups in the organization, work, and competence. (6) Review of training programs, including identification of training results, evaluation of training design, and analysis of training requirements [18].

2.2. Theoretical Framework

The following theories, by Smith and Hayton (1999), highlight the role of training in organizations.

2.2.1. Human Capital Theory

This theory focuses on training as an investment in terms of money. Training, according to human capital theory, improves efficiency [19-24]. It is all about creating perfect training circumstances. Neo-human capital theory proposed in the 1980s that businesses should train their personnel in a systematic manner to improve the workforce's flexibility and suppleness, as well as their openness to modernization [25, 26].

2.2.2. Human Resource Management Theory

This approach focuses on employees' commitment to the company and sees training and development as a way to keep them engaged [27-29]. In the early 1980s, the Harvard Business School proposed a potential organization for human resource management [30]. Training is viewed as a technique for managing a venture's human resource flow, which, when combined with other human resource policies, results in commitment, competence, consistency, and cost-effectiveness.

2.2.3. Training and High-Performance Theory

This is one of the most extensively used theories in organizations around the world. It is about the 'skills trajectory,' and it offers a differentiating between activities that get more competent with time and ones that become less competent with time [31-33]. As a result of study into high-performance employment practices and HRM methods, human resources 'bundles' were produced. They stress the need of using a combination of HRM techniques in 'bundles' to boost performance. The importance of training is always emphasized in the set. [34, 35]

2.3. Review of Previous Empirical Works

2.3.1. Employee Job Performance and Work Efficiency

The ability to get the most output from the least amount of input is referred to as work efficiency. It entails getting more done with less. Working smarter, not harder, is the way to go. When you increase efficiency, you might achieve a higher output from the same – or even less – input. Employees benefit by being able to accomplish more in a limited amount of time: the workday. This formula can be used to calculate work efficiency: $\text{output} / \text{input} = \text{efficiency}$. The formula's result is the normal work hour. The number of hours you or your workers worked is the input. To convert it to a percentage, multiply it by 100. That's how productive an employee is at work.

(i). Employee Job Performance and Learning Ability

Measure completion and effectiveness of training. The ability of a company and its people to become or remain relevant is determined by their ability to adapt and learn. To accomplish this, training programs must be tailored to the needs of individual personnel. During a performance review, it is critical to assess the programs' outcomes. The following are a few factors to consider when assessing an employee's learning abilities: The ability of a company and its people to adapt and learn determines whether they will become or remain relevant. To do this, training programs must be tailored to the employees' individual requirements. During a performance review, it is critical to assess the outcomes of those programs. Here are some factors to consider when assessing an employee's learning abilities:

(ii). Learner Progress and Performance

Individual learner progress and performance reports provide a detailed look at a person's progress, such as how well they did on a recent activity or whether they finished the certification. Is there anything the employee learned as a result of the training? Did the employee use what they learnt in class to their work? Before and after the training, assess their abilities in their performance by using the following criteria: Written Exams. Tests and quizzes are available online. Tasks that are real or simulated. Employee performance over time will reveal how much they benefited from the training.

(iii). Learner Proficiency and Competency

Employees must be able to demonstrate that they have the necessary abilities and expertise to achieve the desired result.

The manager can incorporate online training courses, walkthroughs, and simulations to increase experience and proficiency. Employees will also be pre-assessed to determine their present level of proficiency. Then, to track their progress, conduct a final assessment [36].

(iv). Employee Job Performance and Quality of Work

Employees must be able to demonstrate that they have the necessary abilities and expertise to achieve the desired result. The manager can incorporate online training courses, walkthroughs, and simulations to increase experience and proficiency. Employees will also be pre-assessed to determine their present level of proficiency. Then, to track their progress, conduct a final assessment [37].

It is critical that an employee's work be of high quality. Poor quality can lead to the loss of consumers or the production of inferior goods. As a result, including this as a key employee performance management statistic makes logical. The sort of work performed by an employee should be reflected in quality measurements. What is measured and how it is measured depends on the industry and the employee's unique obligations and activities. Quality can be measured in a context where productivity is important by the percentage of work production that is rejected or must be redone [38]. Customers and coworkers can be irritated by employees who produce poor quality work. Furthermore, these employees may find it difficult to reach their performance goals because the quality of their work falls short of expectations. They will be able to fulfill their objectives more readily if this is fixed. As a result, being able to assess the quality of a team member's work is quite beneficial. It can be accomplished in the following manner:

360-degree feedback: In 360-degree feedback, a manager gathers information on an employee from colleagues, subordinates, customers, and others who have worked with or interacted with the employee. This feedback provides an overall picture of the individual while also collecting a measure of quality, which in some professions can be difficult to define. *Manager's comments:* Another technique to assess an employee's job quality is to provide ongoing performance feedback through regular one-on-one sessions. The manager may bring up instances from the previous week that show what the employee did well as well as opportunities for development at these sessions [16].

The goal of a training needs analysis is to gather information in order to assess whether or not training is required in the organization. If what matters is determining the work to be done, the training organization will select people who are competent in both specific and non-specific aspects of what should be taught. The bottom line is usually a training needs analysis for organizational performance improvement relating to the assessment of the organization, work, and competence [18].

Training needs evaluations can reveal important information about a company's performance gaps. Organizational performance is harmed by skill disparities. While a result, it is critical to recognize employee needs that aren't being satisfied

successfully as you teach them for a current or new skill set. Depending on their prior experience and job role, different employees require different skills and training [18]. The process of assessing an organization's training needs, also known as needs assessment or needs analysis, addresses questions of whether the organization's needs, goals, and difficulties can be solved or addressed through training and retaining of personnel [39]. They go on to say that requirements assessment is a three-step process that comprises organizational analysis (which organizational goals can be reached by personnel training, for example?). identifying if there are need for training in the organization?). *Task analysis* (for example what does the trainee need to learn to be able to do a good job and perform adequately well? What exactly will the process of training entail?). *Individual analysis* (for example why do people need training?). If a company must defend their training expenditures, such must be done on the basis of the company's needs [40]. He claims that companies that take a methodical approach to learning and development would often begin by determining their training and upskilling requirements using a process that is well-structured. He goes on to suggest that such an approach will necessitate a multi-faceted examination of training requirements. Completing a comprehensive needs evaluation is an important first stage in the design and development of training programs that can have a big effect on their overall success. They think that determining training needs and setting targets for these needs is the first step in managing training. Identifying problems are addressed by deliberate upskilling and training programs which can be done in a variety of ways. Well skilled trainers are becoming much more thorough in their approach to assessing training needs. They think that determining training needs and setting targets for these needs is the first step in managing training [39]. Despite the fact that the technique chosen ought to be appropriate for the context, many circumstances appear to benefit from one or more of the following: interviews, questioners, group discussions, and work content analysis. They think that determining training needs and setting targets for these needs is the first step in managing training [41]. It is pointless to spend time teaching an employee whose performance is subpar due to a lack of enthusiasm. He contends that the contrast between cannot do and will not-do problems is at the basis of performance analysis [15].

2.3.2. Organizational Analysis and Training Identification

An examination of the organization's environment tactics and resources to decide where training emphasis should be placed" (1999). Several issues, according to them, have a widespread effect on many organizations' training needs, such as health and safety training, which is frequently driven by laws and court decisions; and mergers and acquisitions, which require employees to take on new roles and responsibilities and adjust to new cultures and ways of doing business. Companies frequently collect data on direct and indirect labor expenses, quality of goods or services, absenteeism, turnover, and the number of accidents to use in the study [42, 43].

Training Identification and Work analysis is defined as a tool to examine the job description and specification to

establish the tasks performed in each job and the knowledge skills and abilities that is necessary to complete them. They laid up two steps for conducting the study: Make a list of all the job's responsibilities and obligations, as well as the actions taken by the employee to complete each one. They claim that if the work is properly understood, the sort of performance expected, as well as the abilities and knowledge required for performance, may be determined. Observing and questioning experienced jobholders, as well as studying job descriptions, can help establish the expected levels of performance, abilities, and knowledge required by the trainer This data aids trainers in deciding on the most effective training technique and program content [44, 45]. *Training Identification and Person analysis* entails establishing whether individual employees' task performance is satisfactory and researching the characteristics of those who will be placed in the training environment. They go on to say that it is crucial to figure out what prospective trainees can and can't do so that the training program may focus on the areas where they're lacking. They stressed that in today's highly competitive business world, implementing a program simply because other companies are doing so is asking for disaster. They went on to say that addressing genuine needs requires a systematic approach. According to researchers, training requirements can be assessed by a series of analyses: The firm's strategic objective, goals, and corporate plans, as well as the outcome of human resource management and planning activities, should all be examined from a broad organizational incisiveness.

The following step, or level of analysis, concentrates on the tasks that must be completed in order for the firm's goals to be realized. For this level of research, job descriptions, performance appraisals, and interviews or surveys of supervisors and job incumbents are essential data sources.

Finally, they agree that each person's training requirements must be met. "Who needs to be trained?" are the pertinent questions. And what kind of education or training is required?"

2.4. The Literature's Gaps

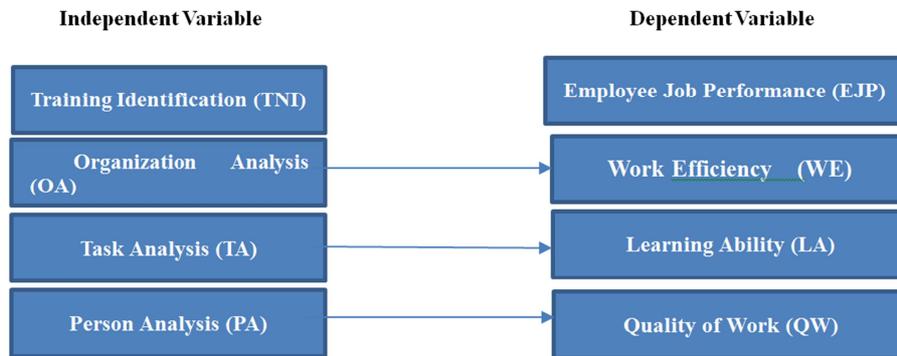
The comprehensive evaluation of importance of training and TNA. Research identifies some significant gulf in the study. The absence of study into TNA practice and successful implementation in a more detailed manner is the first gap in the literature. Despite the fact that there has been a flood of study into the practice of TNA. Furthermore, the research on TNA reveals that most production-sector organizations in Arab nations struggle to identify the training that the workers require. Many Arab academics, including [46-49] have stated that Arab companies lack job descriptions, unambiguous performance appraisal, and an impressionistic rather than methodical approach to analyzing staff development requirements. which also shows in one of our study organizations because the organization originated in the United Arab Emirates.

Second, Despite the large number of studies on training and TNA, there is still a deficiency of theoretical and empirical research on TNA, according to an exhaustive review of the

literature [50-52, 39]. Whilst theory-practice split has received a lot of attention in TNA, as [53]. point out, there have been

few empirical investigations.

2.4.1. Conceptual Framework



Source: Researcher (2021).

Figure 1. Conceptual framework of Training Gap Identification as Determinant of Employees' Job Performance in selected Gas Processing Company in Delta State Nigeria.

2.4.2. Model Specification

The following is the functional model construction for the proposed previous expectation on the dependent and independent variables:

$$EJP=f(TNI)$$

$$EJP=WE, LA, QW$$

$$TNI=OA, TA, PA$$

$$EJP=F(OA, TA, PA)$$

Where: WE=WORK EFFICIENCY
 LA=Learning Ability
 QW=Quality of work
 OA=Organisational Analysis
 TA=Task Analysis
 PA=Person Analysis
 β_0 =Unknown constant to be estimated
 $\beta_1 \dots \beta_4$ =Unknown coefficient to be estimated
 μ =Error term
 i =Sample unit of panel
 t =Time of period

The mathematical model of the above functional model is as follows

$$EJP=f(OA + TA + PA)$$

$$EJP=WE + LA + QW$$

$$TNI=OA + TA + PA$$

The estimated econometric model of the above functional equation model is formulated as follows:

$$WE_{i,t} = \beta_0 + \beta_1 OA_{i,t} + \beta_2 TA_{i,t} + \beta_3 PA_{i,t} + \mu_{i,t} \quad (1)$$

$$LA_{i,t} = \beta_0 + \beta_1 OA_{i,t} + \beta_2 TA_{i,t} + \beta_3 PA_{i,t} + \mu_{i,t} \quad (2)$$

$$QW_{i,t} = \beta_0 + \beta_1 OA_{i,t} + \beta_2 TA_{i,t} + \beta_3 PA_{i,t} + \mu_{i,t} \quad (3)$$

3. Methods

3.1. Methodology

This study adopted descriptive research design, where there was use of questionnaire as a data gathering instrument. The data from the population consists of: 394 senior and junior staff of Company A, a Gas processing company in Delta State, Nigeria. 300 senior and junior staff of Company B, a Gas processing company in Delta State, Nigeria. Total population of 694 employees.

Population of the Study Showing the Names of Selected Companies and Number of Employees Used for the Population of the Study.

Table 1. The study's Population.

S/N.	Name of study's Organisations	Population Size: Senior Grade	Junior	Total
1.	COMPANY A	94	300	394
2.	COMPANY B	100	200	300
Total:		194	500	694

Sources: Field Work 2021.

3.2. Sample Size

The sample size was designed to reflect the entire population.

The sample is considered as an approximation of the whole rather than a complete unit. Taro Yamani's determination formula was used to determine the sample size for this study. The following is the formula:

$$N = \frac{n}{1 + Ne^2}$$

Where n denotes the sample size.

N=Number of people in the population

1=Constant

E=Error limit or margin error of substantial level (acceptable error at 5%), for example 0.05

The following is a translation of the formula as:

$$n = \frac{694}{1 + 694(0.05)^2}$$

$$n = \frac{694}{1 + 1.735}$$

$$n = \frac{694}{2.735}$$

$$n = 253.75$$

There are approximately 254 employees.

However, a sample size of 254 employees was determined. There were two sections of the research instrument. Section A comprises respondents' Socio-Demographic Characteristics,

whereas Section B consists of key objectives of the study. The questionnaire items' validity and reliability were determined using content validity, which was handed to experts to ensure if they effectively covered the construct's domain. In this study, however, Cronbach's alpha values for validity and reliability were 0.814 and 0.844, respectively.

Table 2. Sample Size Distribution Table.

Company	Sample Size	Percentage%
COMPANY A	144	56.7%
COMPANY B	110	43.3%

Sources: Field Work 2021.

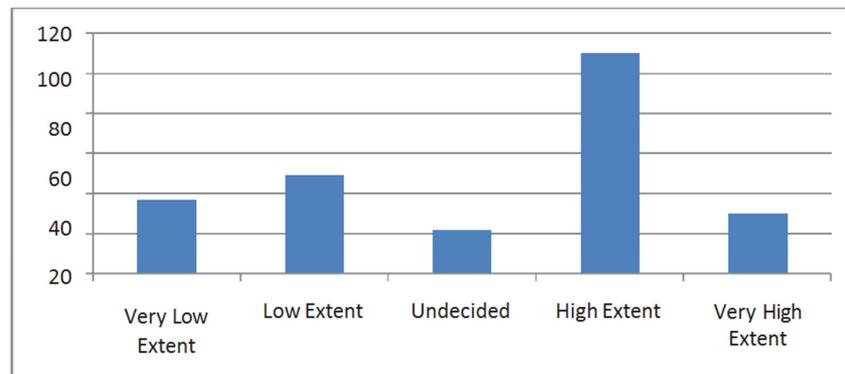
4. Results and Discussion

4.1. Presentation of Data

The researchers distributed 254 questionnaires, 248 of which were totally completed and returned, and 6 of which were not. The regression analysis was to ascertain if there's a link between employee training gap identification and organizational performance in a Gas and Energy Company in Delta State, Nigeria.

What is the proportion to which an ad hoc approach to employee training has a negative effect on organizational productivity?

How much of a negative influence does unstructured approach to staff training have on organizational productivity?



Source: Fieldwork, 2021.

Figure 2. Extent to which unstructured approach of employees training affect organizational productivity.

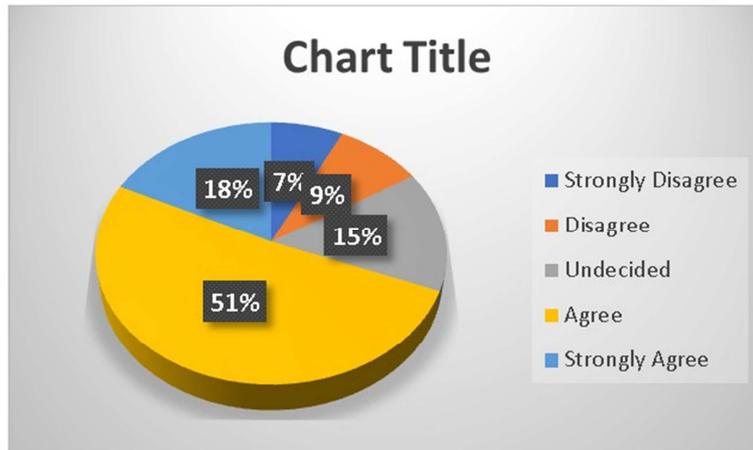
Data Interpretation

Figure 2 To what extent does impromptu employee training have an effect on business productivity? Revealed that thirty (30) which is (12%) of respondent agreed that unstructured approach to employee training has a substantial influence on organizational productivity, while 110 (44%) agreed that it has a significant effect on organizational productivity. 55 (22%) were undecided, 122 (49%) agreed that it has a small effect on organizational productivity, and 92 (37%) agreed that it has a very small and inconsequential effect. The conclusion of the If the HR department did not adopt a systematic technique in

choosing personnel for training, the situation described above would occur. employee involvement likely to suffer. However, given that the employee does not actively involve, such an employee is likely to return not having learned anything. As a result, the entire performance of the company will suffer.

Research Question Two

How much does training design influence organisational productivity? Comments in response to the following questions from the questionnaire, as displayed in Figures 3 below, were used to gather respondents' opinions on the effect of training design on business performance.



Source: Fieldwork 2021.

Figure 3. A well-designed training program guarantees that identified employee skills gaps are adequately addressed.

4.2. Data Interpretation

Figure 3 of Questionnaire Good training design ensures the accurate capture of identified employee skill gaps. According to the findings, 127 (51%) of all respondents strongly agreed or agreed that training design ensures that the identified employee skill gaps are appropriately captured throughout the training design stage. However, 40 respondents, or 17% of the total, disagreed, while 37 respondents (16%) were undecided. This suggests that a training design is required prior to the actual training.

4.3. Hypotheses Testing

The One-Sample Kolmogorov-Smirnov Assess (Zc) was used to test the two (2) assumption theories mentioned in the

first chapter. The outcomes of the analysis of the hypotheses developed to answer the research issues that prompted the study are presented below.

Rule of thumb for making a decision:

The null hypothesis is rejected if Z is less than -1.96 or more than 1.96.

restating the first hypothesis: Employee selection for training has no significant effect on organizational productivity.

Research Question 1 Hypothesis Test

The objective is to determine how much the haphazard approach to employee learning and training affects organisational productivity.

The Kolmogorov-Smirnov One-Sample Test.

The following test was used.

Table 3. Statistics that describe the situation.

	N	Mean	Std. Variance	Lowest	Highest
Very large extent	30	1.88	.323	1	30
large extent	110	1.56	.498	1	110
Uncertain	22	1.91	.285	1	22
Limited extent	49	1.80	.399	1	49
Very limited extent	37	1.85	.357	1	37

Table 4. One-Sample Kolmogorov-Smirnov Test.

	VLE	LE	UC	LE	VLE
N	30	110	22	49	37
Mean (a,b) Normal Parameters	1.88	1.56	1.91	1.80	1.85
Std. Variance	.323	.498	.285	.399	.357
Substantial Differences at Their Most Extreme	.525	.370	.534	.492	.513
Positive	.358	.312	.378	.310	.338
Negative	-.525	-.370	-.534	-.492	-.513
Kolmogorov-Smirnov Z Asymp. Sig. (2-tailed)	8.246	5.827	8.402	7.751	8.076
Monte Carlo Sig. (2- Sig. tailed)	.000	.000	.000	.000	.000
95% Confidence	.000 (c)				
Lower Bound Interval	.000	.000	.000	.000	.000
Upper Bound	.012	.012	.012	.012	.012

a. the distribution of the test data is normal. b. Data-driven calculation.

c. 248 were sampled, with a starting seed of 2000000.

Table 5. Data Interpretation.

Reason	Z _c	Z _t	df
Very large extent	8.246	0.000	8.246
large extent	5.827	0.000	5.827
Uncertain	8.402	0.000	8.402
Limited extent	7.751	1.000	7.751
Very limited extent	8.076	0.000	8.076

($Z_c < Z_t$; $\alpha=0.05$) The test enumeration Statistics revealed

that an ad hoc approach to employee training had a significant effect on organizational productivity, according to the decision rule. As a result, the alternate hypothesis is rejected, whereas the null hypothesis is accepted.

Hypothesis Assessment for Research Question 2

The goal of this research is to see how much organizational performance is influenced by training design. As shown below, the Kolmogorov-Smirnov One-Sample Test was applied.

Table 6. Descriptive Statistics.

	N	Mean	Std. Variance	Lowest	Highest
Very Limited Extent	18	9.50	5.339	1	18
Limited Extent	22	11.50	6.494	1	22
Uncertain	37	19.00	10.824	1	37
Large Extent	127	64.00	36.806	1	127
Very large Extent	44	22.50	12.845	1	44

Table 7. One-Sample Kolmogorov-Smirnov Test.

	VLE	LE	UC	LE	VLE
N	18	22	37	127	44
Mean (a,b) Normal Parameters	9.50	11.50	19.00	64.00	22.50
Std. Variance	5.339	6.494	10.824	36.806	12.845
Substantial Differences at Their Most Extreme	.078	.074	.067	.060	.066
Positive	.078	.074	.067	.060	.066
Negative	-.078	-.074	-.067	-.060	-.066
Kolmogorov-Smirnov Z Asymp. Sig. (2-tailed)	.332	.348	.410	.679	.437
Monte Carlo Sig. (2-tailed) Sig.	1.000	1.000	.996	.746	.991
95% Confidence Lower	1.000 (c)	1.000 (c)	.988 (c)	.730 (c)	.988 (c)
Interval Bound	.988	.988	.974	.675	.974
Upper Bound	1.000	1.000	1.000	.785	1.000

a. the distribution of the test data is normal. b. Data-driven calculation.

c. 248 were sampled, with a starting seed of 2000000.

Table 8. Data Interpretation.

Response	Z _c	Z _t	df
Very Limited Extent	0.332	1.0	-0.668
Limited Extent	0.348	1.0	-0.652
Uncertain	0.410	0.988	-0.578
Large Extent	0.679	0.730	-0.051
Very Large Extent	0.437	0.988	-0.551

The Statistic that was tested ($Z_c=0.679 < Z_t=0.730$; $\alpha=0.05$) revealed that effective training design and choosing the right employee for the appropriate training can have the same effect on organizational performance as bad training design. As a result, training design has a big influence on how well an organization does. The alternative hypothesis is rejected, whereas the null hypothesis is accepted.

4.4. Discussion

The respondents' opinions clearly suggested that an ad hoc approach to employee training has a significant effect on corporate productivity of the goal and objective of directing program selection and content package with the purpose of evaluating or resolving identified training requirements or issues). Respondents agree that training design has a considerable effect on staff productivity, according to the findings of research goal two. The results ($Z_c < Z_t$; $\alpha=0.05$)

Organizations that build a training strategy and design based on the needs of their employees as well as the needs of the organization consistently obtain positive results. As a result, training design has a significant effect on an organization's performance. The null hypothesis is accepted, while the alternative hypothesis is dismissed.

As previously stated, respondents were asked for their thoughts on assessing training needs. They suggested that training regulations and policies be developed and that all employees be involved in the Training Needs Assessment process. They also expressed their displeasure with training prejudice.) It was proposed that training needs assessment provide answers to the "who," "what," and "why" of training. One of the biggest tragedies in organizational training practice has been organizations' incapacity to detect training needs. Positive attitudes among employees can be developed via proper TNA and suitable training. Although TNA followed by training has been shown to improve job morale by (58% of respondents), this was not the case at our study organizations. Because there are numerous aspects that increase job morale, such as wage level, working conditions, career advancement, job satisfaction, and more, roughly 55% of respondents claimed that they have low morale with their employment. They claimed that people who obtain training and are then promoted and given a raise in salary had higher

job morale than those who receive training but are not promoted and remain on the same salary grade [54].

The findings are perplexing since they contravene [55], who claimed that training decreases employee dissatisfaction because well-trained personnel have more prospects for internal promotion? This implies that TNI evaluation will be very beneficial, while other factors such as promotion opportunities, working environment and facilities, and salary level are influenced by the training received, as supported by [56] who believes that TNA should help people develop for promotion to higher positions and future managers.

5. Conclusion and Recommendation

5.1. Conclusions

The following are some of the study's key findings:

1) The employee training selection technique had a substantial effect on organizational productivity.

2) There was a substantial effect of training design on employee productivity.

According to the findings of this study, if eligible candidates are sent to training via a systematic way of identifying and choosing employees for training, organizational performance will improve significantly. As a result, before sending employees on training, the Human Resource (HR) department should conduct an adequate training need assessment, especially in this era of increased global competitiveness and increasing complexity of the work environment, in order for organizations to become more productive and stay in business.

TNI is a type of management system that also functions as the initial step in the training process. TNI is a technique that necessitates the appropriate use of analysis tools and the ability of HRD personnel to assess needs. TNA dimensions must be defined in order for human resource department employees to undertake systematic needs assessments based on the parameters, whether they are developing needs assessment methodologies or moving through the needs analysis stages.

5.2. Recommendations

The following recommendations were developed based on the study's findings, which, if adopted, would make SPEC Energy and PPNG Gas Limited's Human Resource department's training function more productive, efficient, and successful.

Deliberate training, seminars and workshops should be organized for the Human Resource department on the importance of systematic approach of training and proper procedure to follow in identifying skill gaps in the various departments.

The top management should give the Human Resource department adequate freedom to operate independently to determine candidates for training after careful gap analysis.

Management should prohibit managers from recommending employees for training based on favoritism.

A system for assessing and evaluating employee performance following training should be established. Some of the employee performance metrics identified in this study could be implemented by businesses.

Based on the findings of the study, the researcher recommends that new training programs for employees be implemented that are more relevant to the skills needed at work, and that employees be provided equal access to training opportunities. It is also a good idea to deliver training materials through new channels.

References

- [1] Cekada, Tracey L. "Training needs assessment: Understanding what employees need to know." *Professional Safety* 55, no. 03 (2010): 28-33.
- [2] Shuibin, Gu, Teye Benjamin, and Yenbire Daniel Naam. "An Assessment on The Effect of Training and Development on Employee Productivity in Ghana Education Service, Wa." *International Journal of Information, Business and Management* 12, no. 1 (2020): 42-70.
- [3] Hughes, Ashley M., Stephanie Zajac, Jacqueline M. Spencer, and Eduardo Salas. "A checklist for facilitating training transfer in organizations." *International Journal of Training and Development* 22, no. 4 (2018): 334-345.
- [4] Blair, Earl, and Dong-Chul Seo. "Safety training making the connection to high performance." *Professional safety* 52, no. 10 (2007).
- [5] Mongkolsirikiet, Kulthida, and Chiraprapha Akaraborworn. "A revisit of Holton's HRD Evaluation and Research Model (2005) for Learning Transfer." *Journal of Community Development Research (Humanities and Social Sciences)* 12, no. 2 (2019): 15-34.
- [6] Brown, Judith. "Training needs assessment: A must for developing an effective training program." *Public personnel management* 31, no. 4 (2002): 569-578.
- [7] Chang, Jen-Chia, Tseng-Chang Chiang, and C. Kun-yi. "The systematic construction and influential factors of training needs assessment." *International Journal of Business and Social Science* 3, no. 24 (2012): 31-41.
- [8] Martin, Glenn. "Making sure the solutions are the right ones: Training needs analysis." *Training and Development in Australia* 36, no. 2 (2009): 18-21.
- [9] Gitaastuti, Maharani, and Nur Arief Rahmatsyah Putranto. "Designing Training Program to Solve Competencies Gap in Non-Managerial Level, Low Management Level, and Middle Management Level at PT Frolant." *Jurnal Ilmu Sosial Politik Dan Humaniora* 4, no. 1 (2021): 28-34.
- [10] Denis, Diane K., and John J. McConnell. "International corporate governance." *Journal of financial and quantitative analysis* 38, no. 1 (2003): 1-36.
- [11] Gopinath, R. "A Study on Training and Development in BSNL with special reference to Job Satisfaction in three different SSAs using Modeling." (2021).
- [12] Warshauer, Susan. *Inside training & development: Creating effective programs*. Pfeiffer & Company, 1988.

- [13] Larry Page, *Employee Training and Development: The Benefits of Upskilling or Reskilling Your Team*. (Cape Town: Get Smarter Publication, 2021.) accessed July 13, 2021.
- [14] Vethrizal, R, & Jauvani, S. E. (2009). *Manajemen Sumber Daya Manusia Untuk Perusahaan Dari Teori Ke Praktik*. Jakarta: Rajawali Press.
- [15] Dessler, Gary, 2015. *Manajemen dan Organisasi*. Edisi Baru, Penerbit Rineka Cipta, Jakarta.
- [16] Raymond, J. "Training needs assessment: A must for developing an effective training program". *Public Personnel Management*: (2012).
- [17] Ashiru-Oredope, Diane, Amy Hai Yan Chan, Omotayo Olaoye, Victoria Rutter, and Zaheer-Ud-Din Babar. "Needs assessment and effect of COVID-19 on pharmacy professionals in 31 commonwealth countries." *Journal of pharmaceutical policy and practice* 13, no. 1 (2020): 1-11.
- [18] Kaswan, MM "Training and Development to improve HR performance." *CV Alfabet: Bandung* (2011).
- [19] Winterton, Jonathan, and Kenneth Cafferkey. "Theorising human capital." *First Concept Paper FRGS Project* 169896 (2018).
- [20] Becker, GS *Human capital: A theoretical and empirical analysis, with special reference to education*. New York National Bureau of Economic Research. 1964.
- [21] Park, WooRam. "Effects of human capital on technology intensity in the OECD manufacturing sector." In *Human Capital Policy*. Edward Elgar Publishing, 2021.
- [22] Mincer, Jacob. *Progress in Human Capital Analysis of the distribution of earnings*. No. w0053. National Bureau of Economic Research, 1974.
- [23] Strober, Myra H. "Human capital theory: Implications for HR managers." *Industrial Relations: A Journal of Economy and Society* 29, no. 2 (1990): 214-239.
- [24] Ozyilmaz, Adnan. "Hope and human capital enhance job engagement to improve workplace outcomes." *Journal of Occupational and Organizational Psychology* 93, no. 1 (2020): 187-214.
- [25] Olarewaju, Favour, Adeyemi A. Ogundipe, Paul Oluwatomipe Adekola, and Bosede Ngozi Adeleye. "Human Capital and Manufacturing Output in Nigeria: A Micro-Data Survey." *Research in World Economy* 12, no. 2 (2021).
- [26] Bartel, Ann P., and Frank R. Lichtenberg. "The comparative advantage of educated workers in implementing new technology." *The Review of Economics and statistics* (1987): 1-11.
- [27] Rainbird, Helen. "The changing role of the training function: a test for the integration of human resource and business strategies?." *Human Resource Management Journal* 5, no. 1 (1994): 72-90.
- [28] Heyes, Jason, and Mark Stuart. "Does training matter? Employee experiences and attitudes." *Human Resource Management Journal* 6, no. 3 (1996): 7-21.
- [29] Focacci, Chiara Natalie, and Enrico Santarelli. *Job Training, Remote Working, and Self-Employment: Displaced Workers Beyond Employment Hysteresis*. No. 780. GLO Discussion Paper, 2021.
- [30] Beer, Michael, Bert A. Spector, Paul R. Lawrence, Daniel Quinn Mills, and Richard E. Walton. *Managing human assets*. Simon and Schuster, 1984.
- [31] Gallie, Duncan, and Michael White. *Employee Commitment & the Skills Revolution: First Findings from the Employment in Britain Survey!*. Vol. 1. London: Policy Studies Institute, 1993.
- [32] Arugu, Love Obiani. "Achieving Effective Service Delivery by Local Government Employees through Strategic Training Programmes."
- [33] Cappelli, K., M. Felicetti, S. Capomaccio, C. Nocelli, M. Silvestrelli, and A. Verini-Supplizi. "Effect of training status on immune defence related gene expression in Thoroughbred: Are genes ready for the sprint?." *The Veterinary Journal* 195, no. 3 (2013): 373-376.
- [34] Danvila-del-Valle, Ignacio, Carlos Estévez-Mendoza, and Francisco J. Lara. "Human resources training: A bibliometric analysis." *Journal of Business Research* 101 (2019): 627-636.
- [35] Garavan, Thomas, Alma McCarthy, Maura Sheehan, Yanqing Lai, Mark NK Saunders, Nicholas Clarke, Ronan Carbery, and Valerie Shanahan. "Measuring the organizational effect of training: The need for greater methodological rigor." *Human resource development quarterly* 30, no. 3 (2019): 291-309.
- [36] Tony Robbins. "Learner Proficiency and Competency" *The Secret to Strategic Learning* (2021). Robbins Research International, Inc. All rights reserved.
- [37] <https://www.profit.co/blog/performance-management/top-5-employee-performance-metrics-you-must-track/> accessed 28, October. 2021.
- [38] Haryono, Siswoyo, and Yuni Pamungkas. "Effect of Quality of Work Life on Performance: The Role of Satisfaction and Work Discipline." In *4th International Conference on Sustainable Innovation 2020-Accounting and Management (ICoSIAMS 2020)*, pp. 157-170. Atlantis Press, 2021.
- [39] Goldstein, Irwin L., and J. Kevin Ford. "tions: Needs Assessment, Development and Evaluation. Fourth." *ROBERT G JONES* (2002): 239.
- [40] Cole, Gerald A. *Personnel and human resource management*. Cengage Learning EMEA, 2002.
- [41] McGhee, Adrienne, and Pat Dorsett. "Ageing of people with an intellectual disability: Effective training for frontline workers." *Journal of Social Inclusion* 2, no. 1 (2011): 65-82.
- [42] Gittelsohn, Joel, Annie Belcourt, Maya Magarati, Cathryn Booth-LaForce, Bonnie Duran, Shiraz I. Mishra, Lorenda Belone, and Valarie Blue Bird Jernigan. "Building capacity for productive indigenous community-university partnerships." *Prevention Science* 21, no. 1 (2020): 22-32.
- [43] Saks, Alan M., and Monica Belcourt. "An investigation of training activities and transfer of training in organizations." *Human Resource Management: Published in Cooperation with the School of Business Administration, The University of Michigan and in alliance with the Society of Human Resources Management* 45, no. 4 (2006): 629-648.
- [44] Fergus, Thomas A., Nancy E. Wheless, and Lindsay C. Wright. "The attention training technique, self-focused attention, and anxiety: A laboratory-based component study." *Behaviour Research and Therapy* 61 (2014): 150-155.

- [45] Wright, Erik Olin, and Rachel E. Dwyer. "The patterns of job expansions in the USA: a comparison of the 1960s and 1990s." *Socio-Economic Review* 1, no. 3 (2003): 289-325.
- [46] Agnaia, Almehti A. "Assessment of management training needs and selection for training: the case of Libyan companies." *International Journal of Manpower* (1996).
- [47] Ghufli, Ali-Hamad Badi. "Training needs analysis: an empirical study of the Abu Dhabi Police." PhD diss., 2014.
- [48] Alnuaimi, Saif Salem. "Effective leadership in implementing change in Arab culture: the case of the Abu Dhabi police." PhD diss., Manchester Metropolitan University, 2013.
- [49] Al - Faleh, Mahmoud. "Cultural influences on Arab management development: a case study of Jordan." *Journal of management development* (1987).
- [50] Clarke, Nicholas. "The politics of training needs analysis." *Journal of Workplace Learning* (2003).
- [51] Ferreira, A., Otley, D., 2009. The Design and Use of Performance Management Systems: An Extended Framework for Analysis. *Management Accounting Research* 20, 263–282.
- [52] Kraiger, Kurt. "Perspectives on training and development." (2003).
- [53] O'Driscoll, Michael P. Paul J. Taylor, and Paul J. Taylor. "Congruence between theory and practice in management training needs analysis." *International Journal of Human Resource Management* 3, no. 3 (1992): 593-603.
- [54] Cotes, Jorge, and Sebastian M. Ugarte. "A systemic and strategic approach for training needs analysis for the International Bank." *Journal of Business Research* (2019).
- [55] Singh, D. K., Yogesh Prasad, V. K. Singh, Kamlesh Kumar, and A. K. Gupta. "Assessment of Training Needs and Expectations of Farmers Regarding Various Production Technologies." *Progressive Agriculture* 10, no. 1 (2010): 84-87.
- [56] Mahmoudi, Bahram, and P. N. Prasad. "Training Needs Assessment: A Case Study of Hüco (Maharashtra) In India." *Vedic Mathematics Versus Real Mathematics*: 11.