International Journal of Advanced Academic and Educational Research
ISSN: 2360-9909, Volume 13, Issue 6, (April, 2022) pages 66 - 82
www.arcnjournals.org

Impact of Training and Development on Employee Performance: A Case Study of Ramat Polytechnic, Maiduguri and Federal Polytechnic, Damaturu

Aishatu Abdulrahman and Dr. Anna G. Mshelia
Department of Business Education, Ramat Polytechnic, P.M.B. 1070, Maiduguri, Borno State, Nigeria
Corresponding Email: asiyabaye@yahoo.com

Abstract: *This study examined impact of training and development on employees' performance in Ramat Polytechnic, Maiduguri and Federal polytechnic, Maiduguri. Training and development include all attempts to improve performance by increasing an employee's ability to perform through learning. The study adopted descriptive survey research design. Purposive sampling technique was employed to selected two polytechnics (state and federal). The study had four objectives. Four research questions guide the conduct of the study. Four null hypotheses were formulated and tested at 0.05 level of significance. The instrument used for data collection was structured questionnaire design in line with four pint Likert ranking scale. The instrument was validated by two experts. The study had a sample a size of 364 drawn out 3989 population through Taro Yamani sample size formula. Research questions were answered using mean and standard deviation while the null hypotheses were tested using independent samples t-test. Base on the analysis the study revealed among others that that training and development have positive impact on employees' (lecturers) performance; polytechnics determine training and development need through NBTE minimum standard recommendation, accreditation exercise recommendations, quality assurance directorate recommendations, management checklist and tertiary education trust fund are ways of determining training and development needs in polytechnics. The study recommended that polytechnics should endavour to encourage and sponsor their staff for training and development as it is means through which employees update their knowledge.*

Keywords: *Training and Development, Employee Performance, Polytechnic, Impact, Academic*

Introduction

Human resources are a crucial but expensive resource and therefore in order to sustain economic and effective performancse of this resource, it is important to optimize their contribution to the achievement of the aims and objectives of the organization through training and development. Furthermore, organizations need to be conscious of the technological development across the globe and the need to keep their human resources up-to-date. In so doing, management need to pay special attention to all the core functions of human resource management as this plays an important role in different organizational, social and economically related areas among others that are influential to the attainment of the organizational goals and thus organizations successful continuation in the market (Heathfield, 2012).

Training is therefore necessary to ensure an adequate supply of employees that are technically and socially competent for both departmental and management positions (Mullins,

2007). According to Heathfield (2012), the right employee training, development and education at the right time, provides big payoffs for the organization in increase productivity, knowledge, loyalty and contribution. Ramat Polytechnic is a public sector tertiary educational institution which was established by an Edict, 1978. It is however a semi-autonomous institution and therefore the recruitment, selection and training and development of its employees are the responsibility of the management of the polytechnic.

Ramat Polytechnic which started as a tertiary institution in 1979 currently has nine hundred and eighty nine (989) employees, made up of management academic staff (lecturers and instructors) and administrative staff (office employees, workshop assistants and technicians, drivers, security, office attendance and cleaners). The administrative staff (office employees) is further structured into management, senior members, senior staff and junior staff.

Federal Polytechnic, Damaturu was established in May, 1993 by virtue of the Federal Polytechnics (Amendment Decree No. 2) of 1993 which amends the Fedeeral Polytechnic Decree No. 33 of 1979. The institution took off with 6 – academic departments which have gradually expanded over the years to 5 – academic schools comprising 18 – academic departments. The institution has 3,000 employees, made up of management, academic staff (lecturers and instructors) and administrative staff (office employees, workshop assistants/technicians, drivers, security personnel, office attendance/cleaners). The administrative (office employees) is further structured into management, senior members, senior staff and junior staff.

The study however concentrated on the senior staff of the polytechnic. Interview will be conducted among management members as well as junior staff in administration. The senior members are the supervisors of both senior staff and junior staff and are also heads of various departments.

Statement of the problem

Even though Ramat Polytechnic is described as a second generation polytechnic by its management and employees and Federal Polytechnic, Damaturu as a third generation Polytechnic; it appears the polytechnic does not currently have strong staffing policy, training and development policy as well as a successive plan (Strategic Plan). Training and development is therefore more or less unplanned and unsystematic. It looks like the majority of the employees are sufficiently trained (orientation) upon appointment. As a result, administrative employees' skills and abilities have over the years not been enhanced to enable them become effective and efficient. Though there is a management sub-committee on promotion and employment and staff development, it seems it does not have any laid down policy which direct members in their work. Therefore implementation of training plans (which is mainly granting of study leave with or without sponsorship for either a masters or a doctorate degree) has been based on precedence and discretions.

Is an organizational staffing policy necessary? How would the existence of a staffing policy lead to effective and efficient performance of employees? Does training and development affect the performance of employees and the achievement of organizational goals and objectives? What must be the bases for the need for training and development? How is training and development needs determined? What must be done to ensure skills and competencies acquired from training transfers back to the job situation? What role would performance appraisal and job description play in the determination of training needs of employees? The research sought to find

answers to the questions above as well as other relevant issues that arise from the research in respect of the topic. Bearing in mind that human resources are the intellectual property of the organization, employees prove to be a good source of gaining competitive advantage (Houger, 2006) and training in the only way of developing organizational intellectual property through building employees competencies. In order to succeed, organization therefore, need to design its human resource management in ways that fit into the organization's structure as this will make the organizations achieve their goals and objectives.

Objectives of the study

In the light of the above background, the general objective of the study is to examine the impacts of training and development on employee performance of Ramat polytechnic, Maiduguri and Federal Polytechnic, Damaturu. Specifically the study has the following objectives:

1. to determine the extent of impact of training and development on employees (lecturers) performance in Ramat polytechnic and Federal Polytechnic, Damaturu.
2. to determine the extent of constraint to impact of training and development on employees (lecturers) performance in Ramat polytechnic, Maiduguri and Federal polytechnic, Damaturu.
3. to assess constraint to training and development and Ramat polytechnic, Maiduguri and Federal polytechnic, Damaturu..
4. to ascertain ways of determining training and development needs of the Ramat polytechnic, Maiduguri and federal polytechnic, Damaturu.

Research questions

1. What is the extent of impact of training and development on employees (lecturers) performance in Ramat polytechnic, Maiduguri and Federal polytechnic, Damaturu?
2. What is the extent of constraint to impact of training and development on employees (lecturers) performance in Ramat polytechnic, Maiduguri and Federal polytechnic, Damaturu?
3. What are the constraints to training and development in in Ramat polytechnic, Maiduguri and Federal polytechnic, Damaturu?
4. How does Ramat polytechnic, Maiduguri and Federal polytechnic, Damaturu determine training and development needs of employees?

Concept and Definition

Well trained employees are key to organization success. Training is a type of activity which is planned, systematic and it results in enhanced level of skill, knowledge and competency that are necessary to perform work effectively (Kwari, 2006). It has been shown that the most successful and productive employees are those who have received extensive training and development. These groups of employees can be described as the 'cream of the crop' that often has the strongest stake in an organization's future.

According to Dessler (2008), even when employees are carefully selected, it does not still guarantee total acceptable performance from the employees. This is because while the potential of an employee to perform is one thing, performing is another and therefore an employee with a high potential to perform may not still perform his job if he does not go through training and development. This is why training of newly employed starts with organizational orientation. Cole (2004), postulates that human resources are the most dynamic of all the organization's resources

and therefore they need considerable attention from the organization's management, if the human resource are to realize their full potential in their work. Training and development activities just as most other activities in an organization are dependent on the policies and strategies of the organization. An organization with a well organized training would refer to it as 'systematic training' which is why job descriptions are inevitable during the recruitment and selection process. Furthermore, in establishing what training and development needs an organization must start with a job description and later performance appraisal. In part III (Protection & Employment) of the Labour Act 2006, Act 461 Sec. 10 (Rights of a worker). It states that "the rights of a worker include the right to be trained and retrained for the development of his work and to receive information relevant to his work".

The uniqueness of this study lies in the areas of comparing the work with similar studies and to identify the similarities and differences among this work and work of other writers. For example, Gunu, Onisado, and Ajayi (2013) carried out a study to investigate the relationship between training and development and organizational performance with reference to banking industry. The result of their findings revealed that training and development has positive relationship with performance of banks in Nigeria.

Another study was carried by Mohammed, Zainab and Mu'awiyya (2018) on effect of training and development on employee's productivity among academic staff of Kano State Polytechnic, Nigeria.

The result of their study revealed that training method positively influence employee's productivity. Their study concludes that training methods increases the level of employee's productivity among academic staff of Kano State Polytechnic, Nigeria.

None of the above studies examined the impact of training and development on employee's performance in Ramat Polytechnic, Maiduguri, Nigeria. Another uniqueness of this study is that the study is going to cut across all the staff in Ramat polytechnic.

Meaning of Training

DeCenzo and Robbins (2000), explain training as a "learning experience in that, it seeks a relatively permanent change in an individual that will improve his ability to perform on the job". This means training must be designed in such a way that, it will involve either the changing or enhancing of skills, knowledge, attitudes and social behavior. This change or enhancement of skills, knowledge, attitudes and social behavior could involve what the employee knows, how he works, his relations and interactions with co-workers and supervisors or heads of department. With an improved performance in the part of individual, group or organization means, there have been measurable changes or enhancements in knowledge, skills attitude and social behavior. Monappa and Saiyathis (2008) define training as "teaching or learning activities carried on for the primary purpose of helping members of an organization to acquire and apply the knowledge, skills, and abilities and attitude needed by that organization". It is the act of increasing the knowledge and skill of an employee for doing a particular job. Training therefore needs to be seen by managements of every organization as a long term investment in its human resource.

Dessler (2008), sees training further as the means of giving new or current employees the skills they need to perform at their various job. Continuing, he sees training as the hall mark of good management and thus when managers ignore training, they are doing so to the great disadvantage of the organizations they are managing. This is because having high potential employees do not still guarantee they will perform on the job. This is why employee must know what management want him to do and how he must do it. Training therefore has had a fairly impressive record of influencing organizational effectiveness. It is important to note that human resource management is the way organizations manage their staff and help them to develop in order to be able to execute organization's mission and goals successfully.

Nadler (2004) noted that all human resource development activities are meant to either improve performance on the present job of the individual, train new skills for new job or new position in the future and general growth for both individuals and organization so as to be able to meet organization's current and future objectives. Employee performance is normally looked at in terms of outcomes. However, it can also be looked at in terms of behavior (Armstrong, 2000). He however stated that employee's performance is measured against the performance standards set by the organization. There are a number of measures that can be taken into consideration when measuring performance, for example; use of productivity, efficiency, effectiveness, quality and profitability measure.

Development

Development is a broad ongoing multi-faceted set of activities (training activities among them) aimed at bringing someone or an organization up to another threshold of performance, often to perform some job or a new role in the future (McNamasa, 2008). He noted that human resource development is the integration of individual, career and organization development roles in order to achieve maximum productivity, quality, opportunity and fulfillment of organizations members as they work to accomplish the goals of the organization.

Theoretical Framework

This study is based on human capital theory proposed by Schultz in 1961 and developed by Becker in 1994. According to the theory, Human capital theory suggests that education or training raises the productivity of workers by imparting useful knowledge and skills, hence raising workers' future income by increasing their lifetime earnings (Becker, 1994). The Human capital model suggests that an individual's decision to invest in training is based upon an examination of the net present value of the costs and benefits of such an investment. Individuals are assumed to invest in training during an initial period and receive returns to the investment in subsequent periods. In his view, human capital is similar to "physical means of production", e.g., factories and machines: one can invest in human capital (via education, training, medical treatment) and one's outputs depend partly on the rate of return on the human capital one owns. Thus, human capital is a means of production, into which additional investment yields additional output. Human capital is substitutable, but not transferable like land, labour or fixed capital.

Olaniyan and Okemakinde (2008) in their studies titled 'Human Capital Theory: Implication for Educational Development' focused on the benefits of human capital to the nation as a whole. They pointed out the relationship between education and economic growth.

According to Olaniyan and Okemakinde (2008) 'Many of the classical economists argued strongly for government's active support of education on the grounds of the positive externalities that society would gain from a more educated labour force and populace. While formal education has expanded rapidly in many countries, a large portion of human capital accumulation in the forms of on-the-job training and other modes for working adults actually take place both inside and outside the workplace (Jin, 2001).

Some human capital advocates suggest that these great increases in learning efforts have not led to commensurate economic gains because of the declining quality of education. For example over the years, most research have been showing drastic fall in standard of education in Nigeria. The biggest challenge to human capital theory as pointed out by Livingstone (1997) is underemployment of credentialed knowledge i.e a large number of people who have invested many years of their lives in acquiring advanced formal education qualifications, are unable to obtain commensurate jobs. Such situation is prevalent in most of the underdeveloped countries like Nigeria. Another short coming of human capital theory is that in countries like Nigeria, more emphasis is given to paper qualification rather than employee's personal skills and talents.

Methodology

The study adopted descriptive survey research design. The population of the study consisted of both academic and non-academic staff of Ramat Polytechnic, Maiduguri and Federal Polytechnic, Damaturu. This is based on the assumption that these groups of employees within the administrative/academic set up are fulcrum around which all activities in the Polytechnic evolve. The total population for the study was 3,989 staff (Ramat Polytechnic, Maiduguri had 989 staff: Academic staff – 129, non-academics – 156; Federal polytechnic, Damaturu 3,000 staff: academics staff – 1,000 and non-academics academic– 2,000). This gave a total population of 3,989.

The purposive (also known as judgmental or subjective) sampling technique was used as the sampling process of the population of the research to select Ramat polytechnic, Maiduguri and Federal polytechnic, Damaturu. Purposive sampling is non-probability sampling in which the decision concerning the individuals to be included in the sample is taken by the researchers based on the fact that these individuals have been around long enough to have the knowledge of the research issue and also the willingness to participate in the research. Multi stage sampling techniques was used to get the sample size for the study. At the first stage the entire population was divided into strata (Federal and state polytechnic, and academic and non-academic staff). Taro Yamani sample size formula was employed to draw a sample using this formula:

$$N/1+N(e)^2$$

$$= 3989/1+3989(0.05)^2$$

$$= 364$$

A sample size of 364 was obtained using Taro Yamani sample size formula. At the second stage the sample size was shared proportionately among the two polytechnics. At the third stage, the respondents were selected randomly to participate in study. Instrument used for data collection was questionnaire. The questionnaire was divided into two sections 1 and 2. section 1 – academic staff questionnaire, section 2 – non-academic staff questionnaire. The

questionnaire was separated into two parts: parts 'A' was the descriptive part that sought information on the demographic data of the respondents while part 'B' was the analytical which also have section A, B, C and D that contained question items designed according to research questions and based on four point Likert ranking scale of Very High Extent Points/Strongly Agreed (VHE/SA) 4points, high extent/agreed (HE/A) 3points, Low Extent/Disagreed (LE/D) 2points and Very Low Extent/Strongly Disagreed (VLE?SD) 1point . The instrument was validated by two experts, one from university of Maiduguri, department of education and the other from Ramat polytechnic, department of Education. Their corrections and observations were captured and corrected before final production of the questionnaire. The researcher with the help of research assistance chosen and trained on questionnaire administration administered 364 questionnaires to the respondents; however, only 355 were retrieved. The data collected were analyzed using mean and standard deviation. Independent sample t-test was employed to test the null hypotheses at 0.05 level of significance. A weighted average mean of 2.50 and above was considered high extent/agreed and weighted average mean of 2.49 and below was considered low extent/disagreed. For the four null hypotheses, a hypothesis of no significant difference was retained when the t-calculated value is less than the table value (t-critical), and when the t-calculated value is grater or equal to the table value it was rejected.

Result of the study

For academic staff of the two polytechnics, 132 questionnaires were administered but only 128 were retrieved, while 232 questionnaires were administered on the non- academic staff but only 227 questionnaires were retrieved. The analysis was done based on the retrieved questionnaire (355).

Research Question 1: What is the extent of impact of training and development on employees (lecturers) performance?

Table 1: Mean and standard deviation of responses on the extent of impact of training and development on employees (lecturers') performance

S/N	Item Statements	x	SD	Remark
1	Workshops/conference help in careful selection of instructional materials that are useful in facilitating teaching and learning.	3.64	0.87	High Extent
2	In-service training programme helps in the assessment of teaching strategies that always result in the maintenance of positive students' attitudes to learning.	3.40	0.78	High Extent
3	On-the-job training enhances the management and translation of learning resources into effective learning.	3.45	0.92	High Extent
4	Seminars/workshops enhances the collection of information about the learning process for improvement purposes.	3.42	0.99	High Extent
5	Higher degree(s) enhances the measuring students' performance at the end of a unit for selection for entry into further education.	3.00	1.02	High Extent
6	Higher degree(s) helps in the assessment of collection of information on student understanding to ensure required standards for certification of school completion.	2.99	1.07	High Extent
7	Higher degree(s) helps in interactive assessments of student	3.50	0.91	High Extent

	progress and understanding to identify learning needs and adjust teaching appropriately.			
8	Workshops/seminars enhances teachers' ability to assess the complex nature of school children's development and reflect in planning classroom activities.	3.35	0.88	High Extent
9	In-service training helps the assessment of teachers' ability in organizing learning content in such a way as to make learning meaningful.	3.34	0.93	High Extent
10	Conference/seminars helps in designing teaching steps for course content delivery.	2.50	1.04	High Extent
11	Seminar/workshops enhances lecturers' ability to select the appropriate teaching methods for course content delivery.	2.90	0.89	High Extent
12	Workshops enhances lecturers' ability to determine the specific objectives that should include the view of all to be covered.	2.83	1.08	High Extent
13	Through seminars/conferences lecturers' acquire the ability to demonstrate skills in the organization of learning resources.	2.75	0.97	High Extent
14	Higher degree enhances lecturers' ability to organize learning environment for course content delivery.	3.38	0.78	High Extent
	Average	**3.17**	**0.87**	**High Extent**

Source: Field Survey, 2022

Analysis of data in Table 1 reveal that the respondents unanimously indicate high extent for all the constructs as the mean of the responses are very high. The respondents indicates that workshops/ conference help in careful selection of instructional materials that are useful in facilitating teaching and learning to a high extent and In-service training programme helps in the assessment of teaching strategies that always result in the maintenance of positive students' attitudes to learning to high extent (mean = 3.64 and 3.30). The same way the respondents indicates that on-the-job training enhances the management and translation of learning resources into effective learning to a high extent; seminars/workshops enhances the collection of information about the learning process for improvement purposes to a high extent and higher degree(s) enhances the measuring students' performance at the end of a unit for selection for entry into further education to a high extent (mean = 3.45, 3.42 and 3.00) respectively.

In addition, the respondents indicate that higher degree(s) helps in the assessment of collection of information on student understanding to ensure required standards for certification of school completion to a high extent and higher degree(s) helps in interactive assessments of student progress and understanding to identify learning needs and adjust teaching appropriately also to a high extent (mean = 2.99 and 3.50). also, workshops/seminars enhances teachers' ability to assess the complex nature of school children's development and reflect in planning classroom activities to a high extent; in-service training helps the assessment of teachers' ability in organizing learning content in such a way as to make learning meaningful and conference/seminars helps in designing teaching steps for course content delivery to a high extent (mean = 3.35, 3.34 and 2.50). The respondents also indicates that seminar/workshops enhances lecturers' ability to select the appropriate teaching methods for course content delivery

to HIGH EXTENT and workshops enhances lecturers' ability to determine the specific objectives that should include the view of all to be covered to a high extent (mean = 2.90 and 2.83). In addition, the respondents indicate that Through seminars/conferences lecturers' acquire the ability to demonstrate skills in the organization of learning resources to a high extent and Higher degree enhances lecturers' ability to organize learning environment for course content delivery to a high extent (mean = 2.75 and 3.38). All the 14 items have standard deviation ranging from 0.78 to 1.07. This means that the responses of the respondents are not wide spread at it is close to the mean.

Table 1 shows a calculated average mean and standard deviation of 3.17 and 0.87 which means the respondents indicates high extent for all the constructs. This implies that training and development positively impact lecturers performance to a high extent in Ramat polytechnic, Maiduguri and Federal polytechnic, Damaturu (mean = 3.17, SD = 0.87).

Research Question 2: What are the constraints to impact of training and development on employees (lecturers) performance?

Table 2: Mean and standard deviation of responses on the extent of constraints to impact of training and development on employees (lecturers') performance

S/n	**Item statement**	**X**	**SD**	**REMARK**
15	In appropriate monitoring of school performance that guide investments in training and support for schools.	3.34	0.94	High Extent
16	Management inability to provide adequate instructional materials for effective teaching/learning	3.59	0.82	High Extent
17	Non-commensurate of salary/incentives with training obtained	2.92	0.99	High Extent
18	Inability of lecturers to demonstrate the training obtained in teaching activities.	2.52	1.02	High Extent
19	Lack of conducive teaching and learning environment	2.63	1.07	High Extent
20	Unstable academic calendar	2.37	1.13	High Extent
21	Inadequate functional laboratories and workshops	3.02	0.78	High Extent
22	Inadequate teaching equipment /materials	2.88	0.96	High Extent
23	Lack of adequate funding of excursions and fieldtrips by the Institution	2.98	1.02	High Extent
23	Operating with obsolete minimum standard without updating	2.74	1.11	High Extent
	Average	**2.89**	**0.98**	**High Extent**

Source: Field Survey, 2022

Analysis of data in Table 2 reveals that the respondents unanimously indicate high extent for all the constructs except item 20, as the mean of the responses are very high. The respondents indicates that in appropriate monitoring of school performance that guide investments in training and support for schools to a high extent, management inability to provide adequate instructional

materials for effective teaching/learning to a high extent and non-commensurate of salary/incentives with training obtained to a high extent (mean = 3.34, 3.59 and 2.92) respectively. The way the respondents indicates that inability of lecturers to demonstrate the training obtained in teaching activities to a high extent and lack of conducive teaching and learning environment to a high extent (mean = 2.52 and 2.63). However, the respondents indicate that unstable academic calendar to a low extent (mean – 2.37). in addition, the respondents indicates that inadequate functional laboratories and workshops to a high extent, inadequate teaching equipment /materials, lack of adequate funding of excursions and fieldtrips by the Institution, and operating with obsolete minimum standard without updating also to a high extent (mean = 3.02, 2.88, 2.98, and 2.74) respectively. All the 10 items have standard deviation ranging from 0.78 to 1.13. this means that the responses of the respondents are not wide spread as it is close to the mean.

Table 2 shows a calculated average mean and standard deviation of 2.89 and 0.98 which means the respondents indicates high extent for all the constructs. This implies that inadequate teaching/learning resources are constraints to impact of training and development to a high extent in Rama polytechnic, Maiduguri and Federal polytechnic, Damaturu (mean = 2.89, SD = 0.98).

Research question 3: What are the constraints to training and development in your polytechnic?

Table 3: Mean and standard deviation of responses on the constraints to training and development in polytechnics

S/n	**Items statement**	**X**	**SD**	**Remark**
25	Inadequate funds from government to sponsor in-service programmes	2.64	1.12	Agreed
26	Inadequate qualified staff to run on-the-job training for new staff	2.36	1.08	Disagreed
27	inadequate manpower	2.75	0.92	Agreed
28	Cost of staff development programmes	2.74	0.89	Agreed
29	Negative attitude of employees towards training: workshops. seminars etc.	2.20	1.14	Disagreed
30	Duration of in-service programmes	2.52	0.97	Agreed
31	Lack of encouragement on the part of the institution	2.32	1.06	Disagreed
32	Insufficient time for the training exercise	1.91	1.17	Disagreed
	Average	**2.43**	**1.05**	**Disagreed**

Source: Field Survey, 2022

Analysis of data in Table 3 reveals the respondents indicate respondents agreed that inadequate funds from government to sponsor in-service programmes are constraints to training and development (mean = 2.64). however, the respondents disagreed that inadequate qualified staff to run on-the-job training for new staff as constraints to training and development (2.36). In addition, the respondents agreed that inadequate manpower and cost of staff development programmes are constraints to training and development (mean = 2.75 and 2.74). In the same way the respondents disagreed that negative attitude of employees towards training: workshops, seminars etc. are constraints to training and development (2.20). Also, the respondents indicate agreed that duration of in-service training is a constraint to training and development (2.52). the

way the respondents disagreed that lack of encouragement on the part of the institution and insufficient time for training exercise are constraints to training and development (mean = 2.32 and 1.91). All the 7 items have standard deviation ranging from 0.89 to 1.17. This implies that the responses of the respondents are not wide spread as it is close to the mean.

Table 3 shows a calculated average mean and standard deviation of 2.43 and 1.05 which means that the respondents unanimously disagreed with statement in table 3 as constraints to training and development. This implies that inadequate qualified staff, duration of training and development, time for training and developments encouragement from management are not constraints to training and development in Ramat polytechnic, Maiduguri and Federal polytechnic, Damaturu (mean = 2.43, SD = 1.105).

Research Question 4: How does your institution determine training and development needs of employees?

Table 4: Mean and standard deviation of responses on how polytechnics determine training and development of the employees

S/no	**Item statement**	**X**	**SD**	**Remark**
33	It is determine through National Board for Technical Education (NBTE) minimum standard personnel requirement	3.42	0.84	Agreed
34	It is determine through accreditation exercise recommendations	2.96	0.94	Agreed
35	It is determine through quality assurance directorate recommendations	3.03	0.82	Agreed
36	It is determine through departmental requisition for manpower	2.57	1.01	Agreed
37	It is determine through management checklist	2.74	0.95	Agreed
38	It is determined by individual staff interest	2.39	0.93	Disagreed
39	It is determined through Tertiary Education Trust Fund	3.11	0.98	Agreed
	Average	**2.89**	**0.92**	**Agreed**

Source: Field Survey, 2022

Analysis of data in Table 4 reveals that the respondents agreed that training and development needs are determine through NBTE minimum standard personnel requirement and accreditation exercise recommendations (mean = 3.42 and 2.96). The way the respondents agreed that through quality assurance directorate recommendations, departmental requisition for manpower and management checklist training and development need are determine (3.03, 2.57 and 2.74) respectively. However, the respondents disagreed that through individual staff interest training and development are determined. The respondents also agreed that training and development need are determine through tertiary education trust fund (mean = 3.11). all the 6 items have standard deviation ranging from 0.82 to 1.01. this means that the responses of the respondents are not wide spread as it is close to the mean.

Table 4 shows a calculated average mean and standard deviation of 2.89 and 0.92 which means the respondents uniformly indicates agreed for all the constructs. This implies that training and development needs are determine through all the items listed in table 4 in Ramat polytechnic, Maiduguri and Federal polytechnic, Damaturu (mean = 2.89, SD = 0.92).

Test of Hypotheses

The four null hypotheses of the study were tested using independent samples t-test at 0.05 level of significance. The summary of the test of hypotheses are presented in tables 5 to 8 as follows:

Ho_1: There is no significant difference between the mean ratings of lectures of Ramat Polytechnic, Maiduguri and Federal polytechnic, Damaturu on the extent of impact of training and development on lecture's performance

Table 5: Summary of independent samples t-test of the difference between the mean ratings of lecturers of Ramat polytechnic, Maiduguri and Federal polytechnic, Damatutu on the extent of impact of training and development on employees (lecturers') performance.

Institution		N	X	SD	Df	t.cal	t.criq.	Decision
Ramat M/guri	Poly.	40	2.66	0.93	126	4.731	1.658	Ho_1 Rejected
Fed. Damaturu	Ploy.	88	3.45	0.82				

Source: Field Survey, 2022

Data in Table 5 reveal that there are 40 and 88 academic staff. The responses of lecturers in Ramat polytechnic, and Federal polytechnic show that training and development has positive impact on lecturers performance to a high extent. (x = 2.66, SD = 0.93) and (x = 3.45, SD = 0.82) their responses are close to the mean as the standard deviation are very low. The Table reveals that there is significant difference between the mean ratings of lecturers from Ramat polytechnic, Maiduguri and Federal polytechnic, Damaturu on the extent of impact of training and development on employees' performance (t-cal. 4.731, t-critical 1.658). Therefore the null hypothesis is rejected.

This implies that lecturers from Ramat polytechnic, Maiduguri differ in their responses regarding the extent of the impact of training and development on employees (lecturers) performance. Their responses show that Federal polytechnic, Damaturu rated the extent of impact of training and development higher than lecturers from Ramat polytechnic, Maiduguri did (mean difference = 0.79).

Ho_2: There is no significance difference between the mean ratings of lectures of Ramat Polytechnic, Maiduguri and Federal polytechnic, Damaturu on the extent of constraint to the impact of training and development on lecture's performance.

Table 6: Summary of independent samples t-test of the difference between the mean ratings of lecturers of Ramat polytechnic, Maiduguri and Federal polytechnic, Damatutu on the extent of constraint to impact of training and development on employees (lecturers') performance.

Institution		N	X	SD	Df	t.cal	t.criq.	Decision
Ramat M/guri	Poly.	40	3.02	0.96	126	4.7214	1.658	Ho_2 Rejected
Fed.	Ploy.	88	2.15	0.98				

Damaturu

Source: Field Survey, 2022

Data in Table 6 reveal that there are 40 and 80 academic staff. The responses of non-academic staff from Ramat polytechnic, Maiduguri and Federal polytechnic, Damaturu show that monitoring, salary/incentives, instructional materials, teaching/learning environment, laboratories/workshops, funding and minimum standard constraint to impact of training and development to high extent (x = 3.03, SD = 0.96) and (mean = 2.15, SD = 0.98). Their responses are close to the mean as the standard deviations are very low. The Table reveal that there is significant difference between the mean ratings of lecturers of Ramat polytechnic, Maiduguri and Federal polytechnic, Damaturu on the extent of constraint to impact of training and development (t-calculated = 4.7214, t-critical = 1.658). Therefore, the null hypothesis is rejected.

This implies that lecturers from Ramat polytechnic, Maiduguri and Federal polytechnic, Damaturu differ in their responses regarding the extent of constraint to impact of training and development. Their responses show that lecturers from Ramat polytechnic, Maiduguri rate the extent of constraint to impact of training and development higher than lecturers from Federal polytechnic, Damaturu did (mean difference = 0.87).

Ho_3: There is no significance difference between the mean rating s of non-academic staff of Ramat Polytechnic, Maiduguri and Federal polytechnic, Damaturu on constraint to training and development

Table 7: Summary of independent samples t-test of the difference between the mean ratings of non-academic staff from Ramat polytechnic, Maiduguri and Federal polytechnic, Damatutu on the constraint to training and development on employees' performance

Institution	N	X	SD	Df	t.cal	t.criq.	Decision
Ramat Poly. M/guri	48	2.18	1.02				
				225	2.7455	1.567	Ho_3
Fed. Ploy. Damaturu	179	2.64	1.07				Rejected

Source: Field Survey, 2022

Data in table7 reveal that there are 48 and 179 non-academic staff. The responses of non-academic staff from Ramat polytechnic, Maiduguri and Federal polytechnic, Damaturu show that fund from government, inadequate manpower, cost of training and development programme, and duration of training and development programme are constraints to training and development as agreed by the respondents (x = 2.18, SD = 1.02) and (mean = 2.64, SD = 1.07). Their responses are close to the mean and standard deviations are very low. The Table reveal that there is significant difference between the mean ratings of non-academic staff from Ramat polytechnic, Maiduguri and Federal polytechnic, Damaturu on the constraints to training and development (t-cal. = 2.7455, t-critical = 1.567). Therefore the null hypothesis is rejected.

This implies that non-academic staff from Ramat polytechnic, Maiduguri and Federal polytechnic, Damaturu differs in their responses regarding the constraint to training and development. Their responses show that non-academic staff from Federal polytechnic, Damaturu rated constraint to training and development higher than non-academic staff from Ramat polytechnic, Maiduguri did (mean difference = 0.54).

Ho_4: There is no significance difference between the mean rating s of non-academic staff of Ramat Polytechnic, Maiduguri and Federal polytechnic, Damaturu on ways of determining training and development needs of employees

Table 8: Summary of independent samples t-test of the difference between the mean ratings of non-academic staff from Ramat polytechnic, Maiduguri and Federal polytechnic, Damatutu on the ways to determine training and development need of employees performance.

Institution		N	X	SD	Df	t.cal	t.criq.	Decision
Ramat M/guri	Poly.	48	2.77	0.97	225	1.5672	1.658	Ho_3 not Rejected
Fed. Damaturu	Ploy.	179	3.01	0.83				

Source: Field Survey, 2022

Data in Table 4 reveal that there are 48 and 179 non-academic staff. The responses of lecturers from Ramat polytechnic, Maiduguri and Federal polytechnic, Damaturu show that c (x = 2.77, SD = 0.97) and (mean = 3.01, SD = 0.83). Their responses are close to the mean and standard deviations are very low. The Table reveal that there is no significant difference between the mean ratings of non-academic staff from Ramat polytechnic, Maiduguri and Federal polytechnic, Damaturu on ways to determine training and development need of employees (t-cal. = 1.5672, t-critical = 1.5672). Therefore the null hypothesis is not rejected.

This implies that non-academic staff from Ramat polytechnic, Maiduguri and Federal polytechnic, Damaturu did not differ in their responses regarding the constraint to training and development. Their responses show that non-academic staff from Federal polytechnic, Damaturu rated ways to determine employees need of training and development higher than non-academic staff from Ramat polytechnic, Maiduguri did (mean difference = 0.24).

Findings of the Study

The following are the summary of findings of the study:

i) Training and development have positive impact on lecturers performance to a high extent in Ramat polytechnic, Maiduguri and Federal polytechnic, Damaturu (mean = 3.17, SD = 0.87)

ii) Lack inadequate monitoring of teaching/learning activities, incentives, inadequate instructional materials, poor teaching/learning environment, non-functional laboratories, inadequate funding lack of or obsolete minimum standard are constraints to impact of training and development in Ramat polytechnic, Maiduguri and Federal polytechnic, Damaturu (mean= 2.89, SD =).98).

iii) Inadequate qualified staff, negative attitude of employees towards training and development, lack of encouragement from institutions, and insufficient time for training and development are not constraint to training and development in Ramat Polytechnic, Maiduguri and Federal polytechnic, Damaturu (mean = 2.43, SD = 1.05).

iv) NBTE minimum standard, accreditation exercise recommendations, quality assurance directorate recommendations, management checklist, tertiary education trust fund are

ways of determining training and development needs of polytechnics mean = 2.89, SD = 0.92)

v) There is significant difference in the mean ratings of lecturers of Ramat polytechnic, Maiduguri and Federal polytechnic, Damaturu on the extent of impact of training and development on lecturers performances (t-calculated. 4.731, t-critical = 1.658).

vi) There is significant difference between the mean ratings of lecturers of Ramat polytechnic, Maiduguri and Federal polytechnic, Damaturu on the extent of constraint to impact of training and development (t-calculated = 4.7214, t-critical = 1.658).

vii) that there is significant difference between the mean ratings of non-academic staff from Ramat polytechnic, Maiduguri and Federal polytechnic, Damaturu on the constraints to training and development (t-cal. = 2.7455, t-critical = 1.567).

viii) there is no significant difference between the mean ratings of non-academic staff from Ramat polytechnic, Maiduguri and Federal polytechnic, Damaturu on ways to determine training and development need of employees (t-cal. = 1.5672, t-critical = 1.5672).

Discussion of Major Findings

Research question 1 which sought establish the extent of the impact of training and development on lecturers performance in Ramat polytechnic, Maiduguri and Federal polytechnic, Damaturu reveal in Table 1 and null hypothesis (Ho^1) in table 5 shows that training and development has positive impact on lecturers performance to a high extent, and there was significant difference in mean ratings lecturers from Ramat polytechnic, Maiduguri and lecturers from Federal polytechnic, Damaturu on the extent of the impact of training and development, indicating that the null hypothesis was rejected. This data collected showed that training and development have positively impacted the performance of lecturers to a high extent in Ramat polytechnic, Maiduguri and Federal polytechnic, Damaturu. These findings were in agreement with the opinion of Monappa and Saiyathis (2008) that attest that training as "teaching or learning activities carried on for the primary purpose of helping members of an organization to acquire and apply the knowledge, skills, and abilities and attitude needed by that organization". In concurrence are Nickel, McHugh and McHugh (2003) that training and development is an attempt to improve performance by increasing an employee's ability to perform through learning.

Responses to research question two which investigated the extent of constraint to impact of training and development in Ramat polytechnic, Maiduguri and Federal polytechnic, Damaturu showed that monitoring, salary/incentives, instructional materials, teaching/learning environment, laboratories/workshops, funding and minimum standard are constraint to impact of training and development, and there was significant difference between the mean ratings of lecturers from Ramat Polytechnic, Maiduguri and Federal polytechnic, Damaturu indicating that the null was rejected. The findings are in line with Cole (2002) that training and development are been influenced by the commitment of senior management to training as essential part of economic success; the extent to which the organization support the idea of internal career development; the extent management see training as motivating factor in work; the knowledge and skills of those responsible for carrying out the training; the availability of suitable skills within the existing workforce; and adaptability of existing workforce.

The analysis of research question three which determined the constraint to training and development in Ramat polytechnic, Maiduguri and Federal polytechnic, Damaturu showed that fund from government, inadequate manpower, cost of training and development programme, and duration of training and development programme are constraints to training and development and there was significant difference between the mean ratings of non-academic staff from Ramat polytechnic, Maiduguri and Federal polytechnic, Damaturu on the constraints to training and development, indicating that the null hypothesis was rejected. This shows that training and development have constraints. This finding is in line the Cole (2002) that training and development are been influenced by the commitment of senior management to training as essential part of economic success; the extent management see training as motivating factor in work; the knowledge and skills of those responsible for carrying out the training; the suitable skills within the existing workforce; and adaptability of existing workforce; the degree of internal change (new processes); and degree of change in the external environment

Finally the result of research questions 4 which determined the ways through which polytechnics determine training and development needs in Ramat polytechnic, Maiduguri and Federal polytechnic, Damaturu showed that NBTE minimum standard, accreditation exercise recommendations, quality assurance directorate recommendations, management checklist and tertiary education trust fund are ways of determining training and development needs and there was no significant difference between the mean ratings of non-academic staff from Ramat polytechnic, Maiduguri and Federal polytechnic, Maiduguri on the ways of determining training and development needs, indicating that the null hypothesis was not rejected. The results showed that NBTE minimum standard, accreditation exercise recommendations, quality assurance directorate recommendations, management checklist and tertiary education trust fund are ways of determining training and development needs in polytechnics. This findings is in agreement with the opinion of Cole (2002) who state organization adopting a systematic approach in training and development will usually set about defining their needs for training in accordance with a well organized procedure. Such a procedure will entail looking at training needs from a number of different perspectives: the organization , i.e. corporate requirements; the departments of function, the job, or occupational group; the individual employee.

Conclusion

It is concluded based on the statistical analysis that training and development has impact on employees performance to a high extent. Therefore, training and development of employees is an issue that has to be faced in every organization. The amount, and quality, of training carried out varies enormously from one organization or department to another; and there are availability of suitable skills with the workforce, adaptability of existing workforce the extent to which organization support the idea of career development etc. are factors that influence training and development

Recommendations

Based on the findings of the study the following recommendations were offered:

i) Polytechnics should endavour to encourage and support their staff (academic and non-academic staff) to attain training and development programmes to update and acquaint themselves with current trends in their field of specialization.

ii) Conducive environment should be provided for both academic and non-academic staff that will enable them put into practice the knowledge acquired during training and development exercise.

iii) Adequate funds and opportunity for training and development should be provided for to all staff.

iv) Training and development needs of polytechnics should be determined based on NBTE minimum standard because it is the organ that provided standard and monitor polytechnics programme.

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