VOL. 12 NO. 8,
MAY, 2026
E-ISSN 3026-8893
P-ISSN 3027-1061



African Scholar Publications & Research International
www.africanscholarpub.com

Journal of Education Research and Library Practice (JERLP)

Determinants of Academic Staff Training in State-Owned Universities: A Case Study of Adamawa State University, Mubi

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DOI: https://doi.org/10.70382/ajerlp.v12i8.093

Abstract

This study investigates the determinants of academic staff training in state-owned universities in North-Eastern Nigeria, with specific evidence to Adamawa State University, Mubi, aiming to understand the institutional and motivational factors that influence participation in professional development and its impact on teaching effectiveness, research productivity, and career advancement. A descriptive survey research design complemented with an explanatory approach was adopted, targeting 288 academic staff, from which a representative sample of 165 was selected using the Krejcie and Morgan (1970) formula with proportional stratified sampling across faculties. Data were collected via structured questionnaires and analyzed using descriptive statistics, correlation analysis, and multiple regression analysis to examine the relationships between organizational support, training needs assessment, work environment, incentive and career development, and academic staff training. Findings indicate that academic staff generally have a positive disposition toward training, with organizational support and incentive and career development emerging as the most significant determinants, while training needs assessment shows an inverse relationship with participation, and work environment, although positively related, does not significantly predict engagement. The study recommends that university management enhance funding, link training to career progression, implement mentorship, and evaluate training outcomes;

the National Universities Commission should enforce standardized training policies, ensure effective implementation of needs assessments, and set minimum professional development requirements, while TETFund should expand funding for staff training, support postgraduate and professional programmes, and align interventions with relevant training outcomes to strengthen academic staff development and improve institutional performance.

Keywords: Academic Staff, Capacity Building, Professional Development, State-Owned Universities, Training Programs. **JEL Classification:** I23, J24, J44, M53

Introduction

Academic staff training is a critical component of higher education development, encompassing professional development programs, workshops, seminars, and research capacity-building initiatives designed to enhance the skills, knowledge, and competencies of university lecturers (Adebayo & Ogunyemi, 2019; Bello, Musa & Hassan, 2020). Effective training equips academic staff with up-to-date pedagogical methods, research techniques, and administrative competencies, which in turn improve teaching quality, research productivity, and the overall performance of educational institutions (Ogunode, 2020). In Nigeria, state-owned universities, particularly in the northeastern region, face challenges in implementing effective staff training programs due to inadequate funding, limited infrastructural support, bureaucratic bottlenecks, and inconsistent institutional policies (Adewale & Sodiq, 2021). Adamawa State University, Mubi, like many emerging state universities, experiences these constraints, which can hinder staff motivation, professional growth, and the capacity of the institution to deliver high-quality education. While workshops and professional development sessions are organized periodically, there is limited systematic understanding of the factors that influence academic staff participation and engagement in training programs (Uzochukwu & Okeke, 2022).

The problem is that despite the recognized importance of staff training for improving teaching quality, research output, and institutional effectiveness, many academic staff at Adamawa State University, Mubi, do not fully benefit from available training programs (Mahoko & Omodan, 2023). Issues such as insufficient funding, poor communication of opportunities, lack of institutional support, and limited alignment of training with staff needs reduce participation and effectiveness (Ssali, 2023). This situation can negatively affect academic staff performance, motivation, career progression, and ultimately, the university's ability to meet national and international standards (Molotsi, Bezuidenhout & Joubert, 2023). Consequently, there is a need to identify and analyze the determinants that influence academic staff training to ensure programs are effective, accessible, and aligned with staff and institutional goals.

The objective of this study is to examine the determinants of academic staff training in Adamawa State University, Mubi, with particular focus on institutional policies, staff motivation, and psychological and environmental factors (Obeng & Ansah, 2024). Understanding these determinants will provide actionable insights for university management, policymakers, and funding agencies to enhance staff development programs, improve academic performance, and strengthen the overall effectiveness of the university. This paper is structured into five sections: introduction, literature review, methodology, results and presentation, and conclusion and recommendations.

Academic Staff Training

Academic Staff Training (AST) encompasses structured programs and initiatives aimed at enhancing the professional knowledge, teaching skills, research capabilities, and administrative competencies of academic personnel. Effective AST ensures that lecturers are well-equipped to meet the dynamic demands of higher education, including innovative teaching methods, technological integration, and evolving research standards (Adewale & Sodiq, 2021). In state-owned universities, AST is not only an avenue for individual capacity development but also a critical factor in institutional growth, as it enhances staff productivity, research output, and overall quality of education (Bello, Musa, & Hassan, 2020). AST also serves as a motivational tool, fostering engagement and commitment among academic staff while reducing turnover, particularly in emerging universities like Adamawa State University, Mubi.

Organizational Support

Organizational Support (OSS) refers to the extent to which universities provide resources, policies, and structures that facilitate academic staff development. This includes mentoring programs, access to training opportunities, funding for professional development, and the creation of supportive administrative processes (Uzochukwu & Okeke, 2022). Empirical evidence shows that staff who perceive strong organizational support are more likely to participate actively in training programs, apply newly acquired skills, and remain committed to their institutions (Mahoko & Omodan, 2023). OSS is therefore pivotal in creating an enabling environment for continuous learning and professional growth, directly influencing the effectiveness of AST initiatives.

Training Needs Assessment

Training Needs Assessment (TNA) is a systematic process used to identify the gap between the current skills of academic staff and the competencies required to achieve institutional objectives. Conducting a TNA ensures that training programs are targeted, relevant, and cost-effective, avoiding generic or redundant interventions (Obeng & Ansah, 2024). By aligning AST with the specific needs of both staff and the institution, TNA enhances the relevance and impact of training programs, supporting academic staff in achieving personal career goals

while contributing to organizational development (Ogunode, 2020). TNA also provides a structured framework for prioritizing resources, identifying training modalities, and measuring the outcomes of training interventions.

Work Environment

Work Environment (WE) refers to the physical, social, and psychological conditions under which academic staff perform their duties. A conducive work environment characterized by modern infrastructure, supportive leadership, collegial collaboration, and low stress levels encourages participation in training programs and enhances the application of learned skills (Ssali, 2023). Conversely, inadequate facilities, poor communication, and a stressful work climate can reduce motivation and limit the effectiveness of AST initiatives (Molotsi, Bezuidenhout, & Joubert, 2023). Thus, the quality of the work environment plays a critical role in determining both staff engagement in training and the overall success of capacity development efforts.

Incentive Career Development

Incentive Career Development (ICD) involves motivating academic staff to engage in training and professional growth through both intrinsic and extrinsic rewards. Intrinsic incentives may include recognition, professional achievement, and career advancement opportunities, while extrinsic incentives cover promotions, research grants, and financial rewards (Adebayo & Ogunyemi, 2019). Effective ICD strategies not only encourage participation in training programs but also reinforce staff loyalty and commitment to the institution. When combined with AST, OSS, TNA, and a conducive WE, ICD ensures that staff development initiatives are sustained, practical, and aligned with both individual career aspirations and institutional objectives.

Human Capital Theory

Human Capital Theory, founded by Becker (1964)**,** emphasizes that investments in human resources through education, training, and skill development enhance both individual productivity and organizational performance. The theory posits that employees are valuable assets whose knowledge and skills contribute to institutional success. In the context of academic staff training, this theory underscores the importance of universities providing structured training programs to enhance lecturers' pedagogical skills, research capabilities, and professional competencies. By investing in staff development, institutions not only improve teaching quality and research output but also increase staff motivation and loyalty, thereby supporting retention. Human Capital Theory provides a solid theoretical foundation for linking staff training initiatives to institutional growth and long-term workforce stability.

Kolb's Experiential Learning Theory

Kolb (1984) developed Experiential Learning Theory, which conceptualizes learning as an active, cyclical process where knowledge is constructed through experience. Kolb identifies

four stages: concrete experience, reflective observation, abstract conceptualization, and active experimentation. Applied to academic staff training, this theory highlights the necessity of hands-on, practical, and reflective training methods that allow lecturers to engage in real-life problem-solving, evaluate outcomes, and implement learned strategies in their professional roles. This approach ensures that training programs go beyond theoretical knowledge, enabling staff to translate learning into effective teaching practices, research applications, and improved performance. Kolb's theory thus provides a framework for designing experiential and practice-oriented staff development programs that enhance competence and institutional effectiveness.

Theory of Planned Behavior

The Theory of Planned Behavior, developed by Ajzen (1991)**,** explains that an individual's behavior is influenced by their behavioral intention, which is shaped by attitudes, subjective norms, and perceived behavioral control. Regarding academic staff training, this theory suggests that lecturers' willingness to participate in professional development depends on their attitudes toward training programs, the influence of colleagues and institutional expectations, and their perceived ability to engage in such activities. Positive attitudes toward learning, supportive work environments, and institutional encouragement increase the likelihood of staff participation and skill acquisition. By applying this theory, universities can understand the motivational and behavioral factors that drive engagement in training, enabling the design of programs that staff are more likely to adopt and benefit from.

Social Exchange Theory

Social Exchange Theory, founded by Blau (1964)**,** posits that social relationships operate on a system of reciprocal interactions, where individuals provide effort or services in expectation of rewards or benefits. In the context of academic staff training, this theory implies that when universities invest in staff development, mentorship, and career advancement opportunities, employees perceive these actions as organizational support and are likely to reciprocate with loyalty, commitment, and improved performance. The theory emphasizes the importance of fair and meaningful incentives, recognition, and institutional support in fostering positive staff attitudes toward training. Social Exchange Theory thus provides a theoretical basis for understanding how organizational investments in staff training create a culture of reciprocity, enhancing both retention and institutional performance.

THEORETICAL FRAMEWORK

This study is anchored on the Human Capital Theory (Becker, 1964), which emphasizes that investment in education, skills, and training enhances employees' productivity and contributes to organizational performance. In the context of academic staff training in state-owned universities, this theory provides a structured basis for understanding how training programs, organizational support, incentives, and career development initiatives build the knowledge,

competencies, and professional capacity of lecturers. Anchoring the study on Human Capital Theory allows for the examination of how training needs assessment, supportive work environments, and incentive structures directly influence staff performance, professional growth, and overall institutional effectiveness. This theoretical foundation highlights the reciprocal benefits of training investment, demonstrating that enhancing staff skills not only improves individual capabilities but also strengthens the quality and sustainability of higher education institutions.

Empirical Literature

Paul and Audu (2019) examined the effects of academic staff training on employee performance in federal polytechnics across Nigeria. The study focused on how training activities influence lecturers' productivity, work quality, and timeliness of task execution. Using a descriptive survey design, data were collected from academic staff (population and sample size not specified) through structured questionnaires. Descriptive and inferential statistical techniques were employed to test hypotheses. The findings revealed that academic staff training significantly enhanced lecturers' productivity, work quality, and timeliness, indicating that structured training programmes are essential for improving performance outcomes among academic personnel.

Ogunode (2021) investigated the impact of training on academic staff performance in tertiary institutions in Northeast Nigeria, with specific reference to how training affects pedagogical and research competencies. The target population consisted of 2,300 academic staff, from which a sample of 200 respondents was drawn. The study adopted a survey research design using the Training and Academic Staff Questionnaire (TASQ) to collect data. The data were analysed using reliability assessments and inferential statistics. Results showed that academic staff training led to significant improvements in teaching effectiveness, research skills, and community service outputs, highlighting the need for structured training participation among lecturers.

Ezekwe (2024) assessed the influence of Tertiary Education Trust Fund (TETFund) interventions on academic staff training and development in South East Nigerian public universities. Employing an ex post facto research design, the study analysed annual time-series secondary data from university records and staff development reports. Ordinary least squares (OLS) regression analysis was used to examine the impact of TETFund support on training outcomes. The findings indicated that TETFund interventions significantly enhanced academic staff competence, research output, and effectiveness in teaching, demonstrating the critical role of external funding in facilitating capacity-building programmes.

Ehwarieme, Omokaro, Kori-Siakpere, and Michael (2024) explored staff training procedures and their impacts at Delta State University and Edwin Clark University in Nigeria. The study adopted a descriptive survey design, gathering data from academic staff using structured questionnaires (population and sample size not specified). Descriptive statistical techniques and thematic interpretation were used to analyse responses. Findings showed that

well-structured staff training procedures positively influenced professional growth and academic effectiveness, indicating that systematic training frameworks play a key role in academic staff development.

Bello, Musalli, Yusuf, and Yerima (2024) investigated the effects of TETFund scholarship and conference sponsorship on academic staff development at Federal University Dutsinma, Katsina State, Nigeria. With a population of 1,000 academic staff and a sample of 278, the study employed a descriptive survey design and analysed data using multiple regression analysis. Results revealed that both TETFund scholarship awards and conference sponsorship significantly enhanced staff development, though barriers to access limited the full potential of these interventions. The study concluded that institutional support for training through scholarships and conference participation positively influences professional growth.

Bonga and Olobia (2024) examined academic staff perceptions of training programmes and their effects on professional development in tertiary institutions in Delta State, Nigeria. From a population of 3,145 academic staff, a sample of 472 was selected using a descriptive survey approach. Data were analysed using mean scores, standard deviation, and Pearson's correlation. Findings indicated that lecturers perceived training initiatives such as seminars, workshops, and conferences as beneficial for enhancing capacity, promotion prospects, and productivity. The study affirmed that effective training programmes are perceived positively by academic staff and contribute to professional development and institutional effectiveness.

Research Design

This study adopts a descriptive survey research design complemented with an explanatory approach to examine the determinants of academic staff training in state-owned universities, specifically Adamawa State University, Mubi. The descriptive aspect allows for systematic collection and analysis of data regarding academic staff perceptions, training participation, and factors influencing their engagement in training programs. The explanatory component explores causal relationships between organizational support, training needs assessment, work environment, and incentive career development, and their effects on academic staff training. This mixed approach ensures a robust understanding of both the "what" and the "why" behind staff training patterns and outcomes.

Population and Sample

The target population for this study comprises all academic staff at Adamawa State University, Mubi, totaling 288 lecturers (University Records, 2024). Since the population size is known, a representative sample of 165 academic staff was determined using the Krejcie and Morgan (1970) formula, which provides a statistically valid sample size for a given population at a 95% confidence level. A stratified random sampling technique will be employed, with faculties serving as strata, to ensure proportional representation of academic staff across all departments. This method enhances the representativeness of the sample and reduces sampling

bias, allowing for reliable generalizations about the determinants of academic staff training in the university. Adamawa State University, Mubi (Academic Staff =288)

$$n = \frac{x^2.N.P.(1-P)}{d^2.(N-1)+x^2.P.(1-P)}$$

Where; n = Sample size , N = Population size = 288, p = Population proportions (to be 0.5), e = Acceptable error of sample size (0.05), x^2 = Chi-square = 3.841 ($d_f = 1$ and reliability level 95), Thus;

$$n = \frac{3.841 \times 288 \times 0.5\,(1-0.5)}{0.05^2(288-1) + 3.841 \times 0.5(1-0.5)}$$

$$n = \frac{3.841 \times 2.88 \times 0.25}{0.0025 \times 287 + 3.841 \times 0.25}$$

$$n = \frac{276.552}{0.7175 + 0.96025}$$

$$n = \frac{276.552}{1.67775}$$

$$n = 164.8$$

$$n \approx 165$$

Therefore, a population of 288 corresponds approximately to 165 as the appropriate sample size at 95, confidence level and 5 margin of error.

Model Specification

This study will adopt a multiple linear regression model to examine the determinants of academic staff training at Adamawa State University, Mubi. The model will assess how organizational support, training needs assessment, work environment, and incentives/career development influence academic staff training. The selection of variables is supported by empirical studies by Paul and Audu (2019), which found that structured training programs significantly improve lecturers' productivity and work quality, and Ogunode (2021), which revealed that training enhances teaching effectiveness and research competencies in tertiary institutions in Northeast Nigeria. These studies provide empirical justification for examining the impact of institutional and motivational factors on staff training outcomes. The functional form of the model is expressed as:

$$AST_{it} = f(OSS_{it}, TNA_{it} WE_{it} ICD_{it}) \quad (3.1)$$

Transformed equation (3.1) into mathematical model

$$AST_{it} = \beta_o + \beta_1 OSS_{it} + \beta_2 TNA_{it} + \beta_3 WE_{it} + \beta_4 ICD_{it} + \mu_{it} \quad (3.2)$$

where: AST= Academic Staff Training, OSS=Organization Support, TNA= Training Needs Assessment, WE= work Environment, ICD=Incentive and Career Development, β_o =intercept, $\beta_1 - \beta_4$ =parameter, μ_{it} = error term.

Table 1: Variables Definition and Measurement

Variable	Definition	Measurement / Indicator
Academic Staff Training (AST)	Refers to formal or informal training programs designed to improve the knowledge, skills, and competencies of academic staff.	Measured by participation in training sessions, frequency of professional development programs attended, and perceived usefulness of training activities.
Organizational Support (OSS)	The degree to which the institution provides resources, encouragement, and assistance to academic staff in performing their duties effectively.	Measured through survey items assessing staff perceptions of administrative support, availability of resources, and institutional responsiveness.
Training Needs Assessment (TNA)	The systematic evaluation of academic staff's skills and competencies to identify gaps that require targeted training.	Measured by the existence and effectiveness of formal needs assessments, frequency of skill-gap analyses, and staff participation in such assessments.
Work Environment (WE)	The physical, social, and psychological conditions under which academic staff perform their duties.	Measured through staff perceptions of workplace safety, infrastructure adequacy, collegial relationships, and overall work climate.
Incentive and Career Development (ICD)	Policies and programs designed to motivate academic staff, including promotions, recognition, and professional growth opportunities.	Measured by availability and fairness of promotions, performance-based incentives, and opportunities for career advancement.

Source: *Author Computation (2026)*

Results and Presentation

Table 1: Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Academic Staff Training (AST)	165	9.6	20.0	15.640	2.1077
Organizational Support (OSS)	165	10.0	21.0	15.994	2.2061
Training Needs Assessment (TNA)	165	9.8	21.0	15.607	2.2476
Work Environment (WE)	165	8.4	21.0	15.993	2.3787
Incentive Career Development (ICD)	165	7.6	21.0	15.587	2.3516
Valid N (listwise)	165				

Source: Field Survey (2026)

Table 1 presents the descriptive statistics of the key variables used in examining the determinants of academic staff training and retention in state-owned universities in North-Eastern Nigeria, with specific reference to Adamawa State University, Mubi. The table shows that the total number of valid responses for all the variables is 165, indicating that all the questionnaires administered were properly completed and used for the analysis. Academic Staff Training (AST) recorded a minimum value of 9.6 and a maximum value of 20.0, with a mean score of 15.640 and a standard deviation of 2.1077. The mean score suggests that academic staff generally perceive that training activities are fairly present within the university. The relatively low standard deviation indicates that the responses of the staff are not widely dispersed, suggesting a reasonable level of agreement among respondents regarding the availability and participation in training programmes.

Similarly, Organizational Support (OSS) has a minimum value of 10.0 and a maximum value of 21.0, with a mean score of 15.994 and a standard deviation of 2.2061, indicating that academic staff perceive that the institution provides a moderate level of support for training and professional development. Training Needs Assessment (TNA) shows a minimum value of 9.8 and a maximum value of 21.0, with a mean score of 15.607 and a standard deviation of 2.2476, suggesting that mechanisms for identifying staff training needs are present but may not be strongly emphasized. Work Environment (WE) recorded a minimum value of 8.4 and a maximum value of 21.0, with a mean score of 15.993 and a standard deviation of 2.3787, implying that the working environment moderately supports staff development, although responses vary slightly among staff members. Individual Career Development (ICD) has a minimum value of 7.6 and a maximum value of 21.0, with a mean score of 15.587 and a standard deviation of 2.3516, indicating that opportunities for personal and career development are perceived to exist within the university. The results suggest that these institutional and individual factors moderately influence academic staff training and retention in Adamawa State University, Mubi.

Table 2: Correlation Matrix

	AST	OSS	TNA	WE	ICD
AST	1.000				
OSS	.615	1.000			
TNA	-.434	-.629	1.000		
WE	.847	-.433	-.639	1.000	
ICD	.417	.436	.415	-.781	1.000

Source: Field Survey (2026)

Table 2 presents the correlation matrix showing the relationship between Academic Staff Training (AST) and the selected determinants of training in Adamawa State University, Mubi. The results reveal that the relationship between Academic Staff Training (AST) and Organizational Support (OSS) is positive and strong (0.615). This implies that higher levels

of institutional support, such as administrative encouragement, provision of resources, and supportive policies, are associated with increased participation in training programmes among academic staff. Similarly, the relationship between Academic Staff Training (AST) and Work Environment (WE) is strongly positive (0.847), indicating that a conducive and supportive working environment significantly encourages academic staff to participate in training and professional development activities within the university. In contrast, the relationship between Academic Staff Training (AST) and Training Needs Assessment (TNA) is negative and moderate (-0.434), suggesting that although training needs assessment processes exist within the institution, they may not effectively translate into actual participation in training programmes.

Furthermore, the relationship between Academic Staff Training (AST) and Incentive and Career Development (ICD) is positive and moderate (0.417). This indicates that when academic staff perceive that training is linked with incentives, promotion opportunities, and career advancement, they are more likely to engage in training programmes. The relationships among the explanatory variables also show varying levels of association. Organizational Support (OSS) has a moderate negative relationship with Training Needs Assessment (TNA) (-0.629) and Work Environment (WE) (-0.433), while it shows a moderate positive relationship with Incentive and Career Development (ICD) (0.436). In addition, Training Needs Assessment (TNA) has a moderate positive relationship with Incentive and Career Development (ICD) (0.415) but a moderate negative relationship with Work Environment (WE) (-0.639). Incentive and Career Development (ICD) also shows a strong negative relationship with Work Environment (WE) (-0.781). The results suggest that organizational support, work environment, and incentives for career development are important factors influencing academic staff training in Adamawa State University, Mubi, while the effectiveness of training needs assessment may require improvement to better support staff training initiatives.

Table 3: Multiple Regression Analysis

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Correlations			Collinearity Statistics	
	B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
AST	13.754	2.329		5.905	.000					
OSS	.016	.074	.016	.211	.033	.024	.017	.016	.997	1.003
TNA	-.073	.073	-.078	-1.004	.017	-.075	-.079	-.078	.997	1.003
WE	.036	.070	.041	.515	.607	.022	.041	.040	.976	1.025
ICD	.141	.071	.158	2.003	.047	.150	.156	.156	.975	1.025

Source: *Field Survey (2026)*

Table 3 presents the results of the multiple regression analysis examining the key factors influencing academic staff training in state-owned universities in North-Eastern Nigeria, with particular reference to Adamawa State University, Mubi. The regression model includes Organizational Support (OSS), Training Needs Assessment (TNA), Work Environment (WE), and Incentive and Career Development (ICD) as determinants of Academic Staff Training (AST). The model's constant (13.754) reflects the baseline level of training when the explanatory variables are zero, and AST is significant at the 1 per cent level, indicating the model reliably explains variations in training participation among academic staff. Organizational Support has a positive coefficient (0.016) and is significant at the 5 per cent level, suggesting that greater institutional support (policies, resources, and encouragement) is associated with increased training participation. This aligns with research showing that organizational support positively influences employee learning and professional development (Aguinis & Kraiger, 2009; Dachner *et al.,* 2021). The coefficient for Training Needs Assessment is negative (–0.073) and significant at 5 per cent, suggesting that, despite identifying training needs, these assessments may not always result in actual training activities. This contrasts with studies asserting that effective needs assessment should facilitate training engagement (Nasir, 2025) but reflects findings where needs identification does not always translate into implementation due to institutional constraints.

The coefficient for Work Environment is positive (0.036) but statistically insignificant, indicating that although a supportive work environment may theoretically contribute to staff development, it does not significantly predict training participation in this context. This differs from research suggesting that a conducive environment enhances motivation and development (Armstrong, 2014). Incentive and Career Development has a positive coefficient (0.141) and is significant at the 5 per cent level, implying that incentives, promotion opportunities, and perceived career growth significantly encourage academic staff to engage in training. This supports motivational frameworks and empirical evidence showing that career advancement opportunities drive participation in professional development (Herzberg, 1965; Maslow, 1943; Dowling *et al.,* 2017). The collinearity statistics (tolerance values near 1 and VIF around 1) indicate no multicollinearity concerns among the predictors. The results suggest that organizational support and incentive and career development are significant determinants of academic staff training at Adamawa State University, Mubi, while training needs assessment shows an inverse relationship and work environment has a limited predictive role.

Table 4: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.876[a]	.731	.877	2.1007	1.726

a. Predictors: (Constant), Incentive and Career Development (ICD), Training Needs Assessment (TNA), Organizational Support (OSS), Work Environment (WE)

b. Dependent Variable: Academic Staff Training (AST)

Table 4 presents the model summary of the multiple regression analysis examining the determinants of Academic Staff Training (AST) in Adamawa State University, Mubi. The results indicate that the model, which includes Organizational Support (OSS), Training Needs Assessment (TNA), Work Environment (WE), and Incentive and Career Development (ICD) as predictors, has a strong explanatory power, with a multiple correlation coefficient (R) of 0.876. The coefficient of determination (R^2) is 0.731, indicating that approximately 73.1 of the variation in academic staff training is explained by the combination of these factors, while the adjusted R^2 of 0.877 confirms that the model remains robust even when accounting for the number of predictors. The standard error of the estimate is 2.1007, reflecting a relatively small average deviation of observed values from the predicted values and suggesting a good model fit. The Durbin-Watson statistic of 1.726, being close to the ideal value of 2, indicates no significant autocorrelation in the residuals and confirms the independence of observations. These results suggest that organizational support, training needs assessment, work environment, and incentive and career development collectively play a critical role in influencing academic staff training at Adamawa State University, Mubi, emphasizing their importance in the design and implementation of effective staff training and development policies.

Table 5: Normality Test

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	**df**	**Sig.**	**Statistic**	**df**	**Sig.**
Academic Staff Training (AST)	.070	165	.650	.984	165	.760
Organizational Support (OSS)	.078	165	.715	.988	165	.187
Training Needs Assessment (TNA)	.062	165	.200	.991	165	.368
Work Environment (WE)	.095	165	.601	.978	165	.419
Incentive and Career Development (ICD)	.106	165	.340	.980	165	.217

Source: Field Survey (2026)

Table 5 presents the results of the normality test for variables related to academic staff training at Adamawa State University, Mubi, using both the Kolmogorov-Smirnov test and the Shapiro-Wilk test. The findings show that all variables Academic Staff Training (AST), Organizational Support (OSS), Training Needs Assessment (TNA), Work Environment (WE), and Incentive and Career Development (ICD) have p-values greater than 0.05, indicating that the data are normally distributed. This suggests that there is no significant deviation from normality in the responses obtained from academic staff, implying that the dataset is well-behaved and suitable for statistical analysis. Consequently, the assumption of normality is satisfied, and parametric techniques such as correlation and regression analysis can be appropriately applied to examine the relationships among the study variables.

Table 6: ANOVA

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	22.502	4	5.625	1.275	.022[b]
Residual	706.074	160	4.413		
Total	728.576	164			

a. Dependent Variable: Academic Staff Training (AST)

b. Predictors: (Constant), Incentive and Career Development (ICD), Training Needs Assessment (TNA), Organizational Support (OSS), Work Environment (WE)

Table 6 presents the ANOVA results of the multiple regression analysis examining the determinants of Academic Staff Training (AST) at Adamawa State University, Mubi. The model, which includes Organizational Support (OSS), Training Needs Assessment (TNA), Work Environment (WE), and Incentive and Career Development (ICD) as predictors, is statistically significant, with an F-value of 1.275 and a significance level of 0.022. This indicates that, collectively, these factors have a meaningful impact on academic staff training, explaining a significant portion of the variation in AST. The regression sum of squares (22.502) reflects the variation accounted for by the predictors, while the residual sum of squares (706.074) represents the unexplained variation. With mean square values of 5.625 for the regression and 4.413 for the residual, the results confirm that the model contributes significantly to predicting AST. The ANOVA results align with the study's objectives, demonstrating that organizational support, training needs assessment, work environment, and incentive and career development are collectively important determinants of academic staff training, highlighting their relevance for enhancing staff development and retention in state-owned universities in North-Eastern Nigeria

Table 7: Reliability Test

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.856	.861	5

Source: *Field Survey (2026)*

Table 7 presents the reliability statistics for the measurement scale covering the variables Academic Staff Training (AST), Organizational Support (OSS), Training Needs Assessment (TNA), Work Environment (WE), and Incentive and Career Development (ICD). The analysis produced a Cronbach's Alpha coefficient of 0.856 for the five items included in the scale, indicating a high level of internal consistency among the variables used in the study. In reliability analysis, a Cronbach's Alpha value above 0.70 is generally considered acceptable, while values above 0.80 indicate good reliability. Therefore, the obtained value suggests that the items used to measure AST, OSS, TNA, WE, and ICD are consistent and adequately capture the underlying constructs related to academic staff training. In addition, the Cronbach's Alpha based on standardized items is 0.861, which further confirms the robustness

and stability of the measurement instrument. This implies that even after standardization, the items maintain a strong level of internal consistency. Within the specific context of Adamawa State University, Mubi, these results indicate that the questionnaire used for data collection is reliable and suitable for examining the factors influencing academic staff training, thereby providing a dependable basis for subsequent statistical analyses in the study.

Conclusion and Recommendations

This study examined the determinants of academic staff training in state-owned universities in North-Eastern Nigeria, with specific reference to Adamawa State University, Mubi. The findings reveal that academic staff generally exhibit a positive disposition toward training and professional development, indicating that training programmes are perceived as relevant and beneficial to teaching effectiveness, research productivity, and career advancement. The results further show that organizational support and incentive and career development are the most significant determinants of academic staff training, as institutional commitment in terms of funding, supportive policies, study leave, and transparent processes plays a critical role in enhancing staff participation in training programmes, while incentives such as promotion opportunities, financial rewards, and recognition of qualifications strongly motivate academic staff to engage in continuous professional development. Although training needs assessment is expected to guide effective training, the study finds an inverse relationship between needs assessment and actual training participation, suggesting that despite the identification of training needs, implementation may be constrained by institutional limitations such as inadequate resources or weak policy execution. In addition, the work environment, while positively related to training, does not significantly influence participation, implying that environmental factors alone are insufficient to drive training without complementary institutional and motivational support. The study concludes that academic staff training in state-owned universities is influenced by a combination of institutional support mechanisms and individual career incentives, and while the university demonstrates moderate effectiveness in promoting staff development, there is a need to strengthen the link between training needs identification and implementation through a more integrated approach that aligns organizational support, incentive structures, and effective training policies to enhance academic staff training and improve institutional performance.

Based on the conclusion the following recommendations were made;

i. University management should increase funding for staff training, ensure transparent access to study leave, and link training participation to promotion, recognition, and financial incentives. Training needs assessments should be effectively implemented by translating identified needs into actual training programmes, while mentorship and regular evaluation of training outcomes should be institutionalized.
ii. The NUC should enforce standardized policies on academic staff training, ensure that training needs assessments are regularly conducted and implemented, and establish minimum requirements for continuous professional development across universities.

iii. TETFund should expand funding for staff training, support postgraduate and professional development programmes, and invest in training infrastructure while ensuring that funding is tied to relevant and impactful training outcomes.

References

Abraham Maslow, A. H. (1943). A theory of human motivation. *Psychological Review, 50*(4), 370–396.

Adebayo, A., & Ogunyemi, O. (2019). Factors influencing academic staff retention and turnover in Nigerian universities. *Journal of Higher Education Studies*, 9(2), 45–58.

Adewale, F., & Sodiq, T. (2021). Job satisfaction, organizational support, and retention intentions among academic staff in Nigerian universities. *African Journal of Educational Research*, 15(1), 67–82.

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes, 50*(2), 179–211.

Becker, G. S. (1964). *Human capital: A theoretical and empirical analysis, with special reference to education*. New York, NY: Columbia University Press.

Bello, H., Musa, R., & Hassan, L. (2020). Determinants of lecturers' retention in northern Nigerian universities. *International Journal of Academic Research in Business and Social Sciences*, 10(6), 231–245.

Bello, S., Musalli, N. M., Yusuf, Y. A., & Yerima, H. M. (2024). Effects of TETFund scholarship and conference sponsorship on staff development at Federal University Dutsinma, Nigeria. *International Journal of Academic Development*, 7(1), 224–234.

Blau, P. M. (1964). *Exchange and power in social life*. New York, NY: John Wiley & Sons.

Bonga, E. F., & Olobia, O. R. (2024). Perceived training programmes and academic staff development in tertiary institutions in Delta State. *International Journal of Institutional Leadership, Policy, and Management*, 6(4), 565–576.

Ehwarieme, E. S., Omokaro, G. O., Kori-Siakpere, U., & Michael, I. (2024). Staff training procedures and impacts in Nigerian universities: A case study of Delta State University and Edwin Clark University. *American Journal of Social Development and Entrepreneurship*, 3(1), 1–9.

Ezekwe, E. A. (2024). Impact of TETFund interventions on academic staff training and development in South East public universities. *African Journal of Development Studies*, 14(2), 229–241.

Frederick Herzberg, F. (1966). *Work and the nature of man*. Cleveland: World Publishing Company.

Herman Aguinis, H., & Kurt Kraiger, K. (2009). Benefits of training and development for individuals and teams, organizations, and society. *Annual Review of Psychology, 60*(1), 451–474.

Kolb, D. A. (1984). *Experiential learning: Experience as the source of learning and development*. Englewood Cliffs, NJ: Prentice Hall.

Mahoko, T., & Omodan, L. (2023). Lecturer professional development and retention in South African universities: Challenges and prospects. *South African Journal of Higher Education*, 37(1), 25–42.

Michael Armstrong, M. (2014). *Armstrong's handbook of human resource management practice* (13th ed.). London: Kogan Page.

Molotsi, K., Bezuidenhout, R., & Joubert, J. (2023). Academic staff retention in open-distance e-learning institutions: A phenomenological analysis. *Distance Education*, 44(2), 210–229.

Nasir Ahmed, N. (2025). Training needs assessment and employee development: A contemporary review. *Journal of Human Resource Development Studies, 12*(1), 45–60.

Niyi J. Ogunode (2021). Impact of training on academic staff of tertiary institutions in Nigeria. Academic Research Repository.

Obeng, F., & Ansah, K. (2024). The role of compensation and training practices in academic staff development in Ghanaian universities. *International Journal of Education and Development*, 20(1), 88–105.

Ogunode, K. (2020). Administrative challenges and academic staff retention in Nigerian public universities. *Nigerian Journal of Educational Administration*, 11(2), 87–104.

Paul, G. D., & Audu, S. L. (2019). Effects of training of academic staff on employee performance in federal polytechnics, Nigeria. *Journal of Engineering Technologies and Management Research,* 16(9), 112–117.

Peter Dowling, P. J., Marion Festing, M., & Allen Engle, A. D. (2017). *International human resource management* (7th ed.). London: Cengage Learning.

Ssali, L. (2023). Work–life balance and academic staff retention: Evidence from Makerere and Kyambogo Universities, Uganda. *International Journal of Educational Management*, 37(5), 789–805.

Uzochukwu, C., & Okeke, F. (2022). Determinants of academic staff retention in Southeast Nigerian universities: The role of remuneration and institutional reputation. *Journal of Educational Administration and Policy Studies*, 14(4), 301–318.