

Relationship Between Teachers' Job Satisfaction and Students' Academic Performance in Building Technology Education in Colleges of Education in Kano State, Nigeria.

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Abstract

This study, "Relationship Between Teachers' Job Satisfaction and Students' Academic Performance in Building Technology Education in Colleges of Education in Kano State, Nigeria" was guided by purpose two research questions and two hypotheses. Correlation and descriptive survey research designs were adopted. The population comprised of Building Technology teachers and students in Colleges of Education in Kano state was used. Considering the manageable proportion of population size 62 in total the entire population was used, hence, there is no sampling that was involved. The instrument used for data collection was structured questionnaire developed by the researcher which was validated by three experts. To ensure the reliability of the instrument Cronbach Alpha method was used reliability coefficient of 0.84 was obtained. Mean and standard deviation was used to answer research questions while the hypotheses were tested using simple linear regressions, multiple linear regressions, and t-test. The study found that teachers are satisfied with some aspects of their job, Students performs well, teachers' job satisfaction has relationship with students' performance, age and working experience have impact on relationship between teachers' job satisfaction, and students' performance but gender don't have any relation with teachers' job satisfaction. Finally, from the study findings, there are strategies that can enhance teachers' job satisfaction and students' academic performance. Among the recommendations proffered are: Building Technology Teachers should strive to maintain good relationship with colleagues for better job satisfaction, students should be punctual, attentive and engage in class discussions to have good academic performance and management of colleges of education at school level should give more attention to teachers' job satisfaction for a better students' academic performance.

Keywords: Teachers' Job Satisfaction, Students' Academic Performance, Building Technology Education, Working Experience, Kano State

Introduction

Teachers play a crucial role in shaping students' academic performance, particularly in technical and vocational education, such as Building Technology Education. Teacher's job satisfaction significantly influences the quality of instruction, student engagement, and overall learning outcomes. According to Adebayo and Okonkwo (2020), job satisfaction among teachers is directly linked to their level of commitment, classroom performance, and effectiveness in knowledge transmission. According to Ekhsan (2019) Teacher's job satisfaction reflects an individual's feelings about their job, which can be seen in an employee's attitude towards their job and all aspects of the work environment. In technical education, where practical and theoretical knowledge must be effectively delivered, a motivated and satisfied teacher

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is essential. Job satisfaction is the happy emotional state that arises from believing that one's work either achieves or facilitates the realization of one's personal values. It is also "the extent to which people like or dislike their jobs. Teacher Job satisfaction is the positive feeling of an employee towards his job; it is the amount of happiness connected with the job. Cortini et al, (2019) defined Teacher's satisfaction as an attitude a teacher have about their work due to their perception of the work. It's also refers to the Teacher's general attitude towards a job, which shows the difference between the amount of rewards they receive and the amount they believe they should receive (Culibrk et al., 2018). As government and colleges of education management support teacher's well-being, creating positive production and delivery of quality teaching has effect on student academic performance

Student academic performance, often referred to as academic achievement, is a student's measure of how well they have met particular objectives. It also refers to how well educators, institutions, or students have met their learning objectives. Academic achievement is also thought to be a complex construct with many facets that encompasses several learning domains and a wide range of educational outcomes (Steve, 2021). Student academic performance in Building Technology Education (BTE) is a critical measure of the effectiveness of the educational system. Academic performance refers to students' ability to demonstrate understanding and competence in their courses as reflected in their grades, practical assessments, and overall knowledge retention (Okoro & Ibrahim, 2020). Multiple factors influence students' academic performance, include teaching quality, learning resources, motivation, and institutional support (Adeola et al., 2021). Teaching quality is one of the most significant determinants of student success. Studies have shown that students taught by highly satisfied and motivated teachers perform better academically than those taught by dissatisfied instructors (Obi & Chidiebere, 2019). Effective teaching strategies, coupled with a passion for the subject, enhance student engagement and learning outcomes (Adeyemi & Ojo, 2022). The availability of instructional materials and well-equipped laboratories is also a major factor in determining academic performance. BTE, being a practical-based course, requires hands-on training, yet many Colleges of Education in Nigeria lack adequate facilities for skill acquisition (Kazeem et al., 2023). Institutions that invest in modern workshops and technological tools report higher student success rates (Olawale et al., 2022). A supportive school culture and teacher perception and expectation student's well-being can help to mitigate any negative effects of gender dynamics

Gender has been widely studied in relation to students' academic performance across various disciplines, including technical education. Some studies suggest that male students perform better in Building Technology Education due to their early exposure to construction-related activities (Obi & Adeyemi, 2019). Others argue that gender disparities in performance are gradually diminishing due to increased female participation in technical fields (Okon, 2020). Research findings indicates that societal expectations and cultural perceptions play a role in gender-related academic outcomes. In Nigeria, for instance, male students have historically dominated Building Technology Education due to traditional gender roles (Eze, 2021). However, recent initiatives promoting gender inclusivity in technical education have helped bridge this gap (Bamidele & Okafor, 2022).

Gender differences in academic performance may also stem from variations in learning styles and interests. According to Adekunle (2023), male students are more inclined towards practical-based learning, whereas female students excel in theoretical comprehension. This distinction suggests the need for a balanced

instructional approach that caters to both genders effectively. Moreover, classroom dynamics and peer interactions often differ by gender. Research by Aluko and Ibrahim (2019) found that female students may face challenges in male-dominated technical programs, leading to lower participation rates and confidence levels. In contrast, supportive learning environment and educational institutions play a crucial role in supporting teachers working experiences.

Teacher's working experience is refers to the length of time a teacher has been teaching including their years of services, teaching assignment and professional development opportunities. Prior academic and practical experience can have a profound impact on students' academic performance in Building Technology Education. Experience, in this context, includes previous exposure to technical subjects, vocational training, and real-world construction practices. Studies indicate that students with hands-on experience perform better in technical subjects compared to those with purely theoretical backgrounds (Usman et al., 2016). According to Clotfelter et al (2007). Teacher's working experience is probably the key factor in personnel policies that affect current employees. It is a corner stone of traditional single-salary schedules, Teacher's show the greatest productivity gains during their first few years on the job, after which their performance tends to level off. Harris and Sass (2009) found that teacher's working experience or effectiveness is influences significantly by teacher personality, factors especially caring, intelligence, subject matter knowledge and teaching skills and working experience are essential component of education, particularly in colleges of education.

Colleges of education are tertiary educational institutions established to give professional training for the production of highly qualified classroom teachers (James et al., 2024; Federal Republic of Nigeria, 2004). College of Education is a higher institution of learning established to train teachers that will teach students at the basic and secondary levels of education. Colleges of Education provide learning opportunities for prospective teachers which leads to award of Nigeria Certificate in Education (NCE). According to Umaru and Danjuma (2017), the College of Education is an institution of higher learning that provides manpower needs of secondary education to advance national development. Colleges of Education is designed to enable prospective teachers acquire both physical and intellectual skills for training secondary school students to be self-reliant and useful members of the society. National Policy on Education. (2004), Noted that, Colleges of Education are among teacher education Institutions required to give professional training for the production of highly motivated, conscientious and efficient classroom teachers for the basic education levels of Nigerian educational system. Colleges of Education award the Nigerian Certificate in Education and are governed regulated and monitored by the National Commission of Colleges of Education (NCCE). The college of education plays a vital role in shaping the next generation of educators and among the courses offered by the college of education are building technology educations.

Building Technology Education in Colleges of Education is designed to equip students with the necessary skills, competencies, and knowledge required for careers in construction and allied industries. However, poor job satisfaction among teachers in this field may hinder effective teaching and learning. Studies such as Nwosu (2020) have shown that job satisfaction is influenced by several factors, including working conditions, remuneration, job security, professional growth opportunities, and institutional support.

The quality of education in Building Technology Education programs largely depends on the motivation and dedication of instructors. Studies by Yusuf (2022) highlight that satisfied teacher tend to be more innovative,

dedicated, and effective in classroom management, which in turn improves students' academic performance. On the contrary, dissatisfied teachers often demonstrate reduced enthusiasm, absenteeism, and a lack of engagement, which negatively impacts students' learning experiences and outcomes.

The Nigerian government and educational policymakers have made efforts to improve technical education by introducing reforms and policies aimed at enhancing teachers' welfare and satisfaction. However, the extent to which these policies have impacted teacher satisfaction and student performance in Building Technology Education remains underexplored, making this study relevant an imperative.

Building Technology Education in Kano state faces numerous challenges that affect both teacher satisfaction and student performance. These include inadequate infrastructure, lack of teaching materials, poor remuneration, and limited professional development opportunities. Research by Olawale and Adetunji (2021) indicates that when teachers in technical education experience job dissatisfaction, their instructional quality declines, leading to lower student performance.

Furthermore, teacher satisfaction has been linked to institutional policies and management practices. Schools that provide incentives, professional development opportunities, and a conducive working environment tend to have more satisfied teachers, as suggested by Bala and Adeyinka (2023). This, in turn, translates to better academic performance among students in technical fields.

Statement of the Problem

In Nigeria, particularly Kano state, the educational institutions sector faces numerous challenges including inadequate infrastructure, insufficient resources, and poor teachers' welfare and non benefit from ongoing professional development. These challenges can negatively impact teachers' job satisfaction and subsequently student academic performance. In Building Technology Education, where students are expected to acquire both theoretical knowledge and practical skills, the satisfaction and motivation of teachers are particularly critical. (Usman, 2021).

However, the current realities in many Colleges of Education in Kano State deviate significantly from this ideal. Teachers in Building Technology Education often face low job satisfaction due to poor working conditions, insufficient instructional resources, inadequate salaries, limited career advancement, and lack of institutional support (Eze, 2019). These challenges can result in low morale, reduced motivation, absenteeism, and diminished teaching effectiveness, all of which negatively affect students' academic achievement. The researcher's observations indicate that students in these institutions frequently struggle to grasp essential technical concepts, demonstrate weak academic performance, and lack competence in practical applications. These problems not only compromise the quality of graduates produced but also have long-term implications for the construction industry and national development (Ibrahim & Mohammed, 2019).

Although numerous studies have investigated teacher job satisfaction in general education and vocational contexts, there is a significant gap in research specifically addressing how job satisfaction among Building Technology Education teachers in Colleges of Education affects students' academic performance. This gap limits the understanding of the unique challenges and implications associated with teaching in this technical field. Therefore, this study seeks to bridge that gap by examining the relationship between teachers' job

satisfaction and students' academic performance, with the aim of informing evidence-based strategies to enhance both teacher motivation and educational outcomes in Building Technology Education.

Purpose of the Study

1. Examine the impact of teacher's working experience on the relationship between teachers' job satisfaction and academic performance in building technology education in colleges of education in Kano state, Nigeria
2. Determine strategies for enhancing teachers' job satisfaction and students' academic performance in building technology education in colleges of education in Kano state, Nigeria

Research Questions

1. What is the impact of teacher's working experience on the relationship between teachers' job satisfaction and academic performance in building technology education?
2. What are the strategies for enhancing teachers' job satisfaction and students' academic performance in building technology education?

Hypotheses

- H₀₁** There is no significant impact of teacher's working experience on the relationship between teachers' job satisfaction and academic performance in building technology education
- H₀₂** There is no significant difference on the opinion of respondents on strategies for enhancing teachers' job satisfaction and students' academic performance in building technology education.

Methodology

This study adopted correlational research design to examine the relationship between teachers' job satisfaction and students' academic performance. Correlational research is appropriate for identifying and assessing the strength and direction of relationships between variables without manipulating them (Creswell & Creswell, 2018). This design enabled the exploration of whether variations in teachers' job satisfaction levels are associated with changes in students' academic outcomes in Building Technology Education. In summary, the correlational research design is deemed suitable for this study as it facilitates the examination of the relationship between teachers' job satisfaction and students' academic performance in a natural educational setting, aligning with the study's purposes and research questions. The area of this study is Kano State, which is situated in North-Western part of Nigeria. Geographically, Kano state is approximately located between latitudes 11°30' and 12°30'N and longitudes 8° and 10°E. The city of Kano, which serves as the capital of Kano state, is situated approximately at latitude 12°N and longitude 8°30'E (Abubakar, 2021). Kano state has a total of forty-four (44) local governments and covers a total area of 20,131 square kilometers (7,773 square miles) (NBS, 2022). Kano State borders with Katsina State to the northwest for about 210 km (130 miles), Jigawa State to the northeast for 355 km (221 miles), Bauchi State to the southeast for 131 km (82 miles), and Kaduna State to the southwest for 255 km. The population for this study comprised of Building Technology Education lecturers and students within the Colleges of Education in Kano State, Nigeria. The

student population was encompass all individuals enrolled in Building Technology Education programs in the colleges. The choice of this population aligns with the study's objective to explore how lecturers' job satisfaction influences students' academic outcomes in Building Technology Education as presented. The entire population comprising of 23 and 37 students was used due to its manageable proportion. Hence there is no sampling in the study. This decision is in line with the opinion of Creswel (2012) who stated that where the size of the population is small, sampling might not be necessary indicating that the entire population would be used. The instrument for data collection in this study was a developed structured questionnaire by the researcher titled Teacher's Job Satisfaction and Students' Academic Performance Questionnaire (TJSSAPQ). A questionnaire is an effective tool for gathering quantitative data on the perceptions and experiences of respondents (Saunders, Lewis, & Thornhill, 2019). A five-point Likert scale ranging from "Strongly Disagree" (1) to "Strongly Agree" (5) was used in measuring responses, ensuring a standardized approach to data collection. The instrument was trial tested to assess clarity and reliability before full administration. To ensure the validity of the instrument, questionnaire was validated by two experts. The questionnaire was reviewed by experts in the Department of Technology Education, Modibbo Adama University, Yola to assess its content relevance and clarity (Fraenkel, Wallen, & Hyun, 2019). Their feedback was used in refining the wording of questions and removes any ambiguous or redundant items. Construct validity was carryout using factor analysis to determine whether the questionnaire items adequately represent the underlying constructs of job satisfaction and academic performance. The feedback on the comprehensibility and relevance of the items was considered for final adjustments. See appendix I . Reliability testing was conducted in Federal College of Education (Technical) Gombe, Gombe state and Federal College of Education (Technical) Potiskum Yobe state, which are both out of the researcher's study area but having the same characteristics with those in the study area to ensure consistency in responses. The internal consistency of the questionnaire was measured using Cronbach's alpha coefficient, which assesses the degree to which items within each section of the questionnaire correlate with one another (Tavakol & Dennick, 2019). A Cronbach's alpha value of 0.84 was obtained which is considered acceptable for reliability (Nunnally & Bernstein, 1994). An introductory letter was obtained from the Department of Technology Education; Modibbo Adama University Yola . Data collection was gathered in two phases. In the first phase, the researcher seeks permission from the management of the Colleges of Education involved in the study. Approval was obtained from the relevant institutional authorities, and ethical considerations were addressed, including informed consent from all participants. The second phase involved the distribution of questionnaires to selected lecturers and students. To ensure a high response rate, trained research assistants were engaged in administering the questionnaires. Respondents were given ample time (approximately two weeks) to complete the questionnaire, after which the completed questionnaires were retrieved. Anonymity and confidentiality were maintained throughout the process to encourage honest responses. The collected data was analyzed using both descriptive and inferential statistics. Descriptive statistics such as mean, standard deviation were used to answer research questions. For inferential analysis, simple regression analysis and multiple regression analysis was used in testing hypotheses 1 and 2 respectively at 0.05 level of significance and be conducted to determine the extent to which different dimensions of job satisfaction predict academic performance. Simple regression analysis is aims to predict the value of a dependent variable based on the value of an independent variable

and Multiple linear regression analysis is a powerful statistical for understanding complex relationship and making prediction based on multiple dependent variables. While hypothesis 2 was tested using t-test. These analyses were performed using Statistical Package for the Social Sciences (SPSS) version 25.0. Upper and lower real limits of numbers were used for decision making in answering the research questions. Sum of numerical value of responses $5+4+3+2+1 = 15/5 = 3.0$. Since the average of five point scales is 3.0 which coincides with neutral level on the scale, therefore the decision rule is that any item with mean above the point of 3.49 was considered agreed, and any item with mean below the cutoff point of 3.49 was considered disagreed and for testing the hypotheses is, if the computed P-value is greater than calculated, the null hypothesis would be accepted and conclude that the independent variable do not significantly predict the dependent variable and if the computed P-value is less than calculated, the null hypothesis would be rejected and conclude that the independent variable significantly predict the dependent variable.

Results

Research Question One

Table 1		Mean and Standard Deviation on Impact of Teacher's Working Experience on the Relationship Between Teachers' Job Satisfaction and Academic Performance in Building Technology Education				
Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	8.696	6.185		1.406	.165
	Job_Satisfaction	1.212	.177	.681	6.863	.000
	Teachers_Working_Experience	.162	.157	.102	1.030	.007

Table 1 showed the impact of teacher's working experience on the relationship between teachers' job satisfaction and academic performance in building technology education in Colleges of Education in Kano State. The respondents agreed that items 51 – 60 listed in Table 6 are the impact of teacher's working experience on the relationship between teachers' job satisfaction and academic performance in building technology education in Colleges of Education in Kano State with a mean value which ranged between 3.52 and 4.13. The grand mean of 3.75 also implies that, the respondents agreed that there is impact of teacher's working experience on the relationship between teachers' job satisfaction and academic performance in building technology education in Colleges of Education in Kano State.

Hypothesis One

H₀₁ There is no significant impact of teacher's working experience on the relationship between teachers' job satisfaction and academic performance in building technology education

Table 2a	Model Summary of Relationship on Impact of Teacher's Working Experience on the Relationship Between Teachers' Job Satisfaction and Academic Performance			
Model	R	R Square	Adjusted R	Std. Error of the Estimate
1	.733 ^a	.537	.521	4.83751

Predictor: (Constant), teachers' job satisfaction, teacher's working experience

Table 2a highlights the model summary of relationship on impact of teacher's working experience on the relationship between teachers' job satisfaction and academic performance. The value of R represents the simple Pearson's correlation which is 0.733, indicating a strong correlation. The table also shows that the value of R^2 is 0.537 which means 53.7% variation in students' academic performance is explained by teachers' job satisfaction and teachers' working experience.

Table 2b	Model Summary of Regression Analysis on Impact of Teacher's Working Experience on the Relationship Between Teachers' Job Satisfaction and Academic Performance					
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1600.746	2	800.373	34.202	.000 ^b
	Residual	1380.689	59	23.402		
	Total	2981.435	61			

Table 11b show that $(F(2,59) = 34.202, p=0.000 < 0.05)$. This means that the teachers' job satisfaction and teachers' age are significantly related to students' academic performance. The null hypothesis is therefore rejected meaning there is significant relationship between teachers' job satisfaction and working experience and students' academic performance.

Table 2c	Regression Coefficient Table of Models Parameters (Beta values) and Significance on Impact of Teacher's Working Experience on the Relationship Between Teachers' Job Satisfaction and Academic Performance				
Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
1	B	Stan Err.	Beta		
1	8.696	6.185		1.406	.165
Teachers' job satisfaction	1.212	.177	.681	6.863	.000
Teachers' Age	.162	.157	.102	1.030	.007

Dependent Variable: Students' academic performance

Table 2c provides details of models parameters (Beta values) and significance of these values. The unstandardized Beta coefficient gives measures of the contribution of each variable to the model. All (1.212 and 0.162) are positive values, indicating positive relationship and also indicating that if the value of predictor variables increased by one unit each, there are 1.212 and 0,162 units increased in the dependent variable (students' job performance). The table also revealed that the variables teachers' job satisfaction $p (.000) < 0.00$; and teachers' age $p (.007) < 0.05$ are significant, this means that the teachers working experience has impact on the relationship between teachers' job satisfaction and students' academic performance.

Research Question Two

Table 3 Mean and Standard Deviation on Strategies for Enhancing Teachers' Job Satisfaction and Students' Academic Performance in Building Technology Education					
	Categories of Respondents	N	Mean	Std. Deviation	Std. Error Mean
Strategies_t_test	Teachers	23	39.6522	4.12981	.86113
	Students	39	40.9744	4.90696	.78574

Table 3 showed the strategies for enhancing teachers' job satisfaction and students' academic performance in building technology education in Colleges of Education in Kano State. The respondents agreed that items 61 – 70 listed in Table7 are the strategies for enhancing teachers' job satisfaction and students' academic performance in building technology education in Colleges of Education in Kano State with a mean value which ranged between 3.52 and 4.37. The grand mean of 4.05also implies that, the respondents agreed that the items are strategies for enhancing teachers' job satisfaction and students' academic performance in building technology education in Colleges of Education in Kano State.

Hypothesis Two

H_{02} There is no significant difference on the opinion of respondents on strategies for enhancing teachers' job satisfaction and students' academic performance in building technology education.

Table 4 Independent Sample t-test on the Opinion of Respondents on Strategies for Enhancing Teachers' Job Satisfaction and Students' Academic Performance							
Respondents	N	Mean	SD	t_{cal}	p-value	Sig. Level	Decision
Teachers	23	39.65	4.13	-1.085	.282	0.05	Accepted
Students	39	40.97	4.91				

$p > 0.05$, hence H_0 is Accepted

The result on Table 12 reveals a t_{cal} of -1.085with a p -value of .282. Since the p -value is greater than the alpha level of the test ($p > .05$), the null hypothesis tested is accepted. This means that there is no significant

difference on the opinion of respondents on strategies for enhancing teachers' job satisfaction and students' academic performance in building technology education.

Findings of the Study

1. Teachers' working experience has impact on the job performance as experience teacher improve students' attainability in the classroom, novice teachers tend to have more difficulty with classroom management, experience teachers have more opportunities for professional growth, have more effective classroom management strategies, working experience influences your relationship with students, experience teachers have higher job satisfaction, help the students to acquire more skill in practical aspect, be more open to new ideas, their job security depends on their level of experience and can be effective and satisfied in their jobs
2. strategies that can enhance teachers' job satisfaction and students' academic performance are: availability of modern teaching facilities, adequate salaries, opportunities for professional development, conducive working environment, effective classroom management, regular assessment, teachers' enthusiasm, use of practical and hands-on learning, adequate instructional materials and satisfying teacher's needs.

Conclusion

Based on the findings of this study, it is evident that teachers' job satisfaction significantly influences students' academic performance in Building Technology Education in Colleges of Education in Kano State. The results also showed that students generally perform well academically, particularly when guided by motivated and experienced teachers.

Furthermore, the study established a strong positive relationship between teachers' job satisfaction and students' academic performance. Among the demographic variables examined, age and years of teaching experience were found to significantly affect this relationship, with older and more experienced teachers demonstrating greater effectiveness in facilitating student learning. The study concludes that improving teacher satisfaction through targeted strategies—such as ensuring adequate teaching resources, providing fair and timely remuneration, and fostering professional development—can enhance the quality of instruction and, consequently, improve students' academic performance in Building Technology Education. Stakeholders in education, including policymakers, institutional leaders, and curriculum planners, should prioritize the welfare and motivation of teachers to achieve better outcomes in technical education.

Recommendations

1. As the teachers' working experience has impact on the job performance, Colleges of Education should give more attention to retaining experienced teachers. Government should give more special consideration to teacher's working experience when recruitment as it has impact on the relationship between teachers' job satisfaction and students' academic performance in building technology education
2. Government and other stake holders responsible, ministry of education should consider implementing the identified strategies that can enhance teachers job satisfaction and students' performance. Building

Technology teachers and students should cooperate when it comes to implementation of the identified strategies can enhance teachers job satisfaction and students' performance.

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