



Relationship between Self-efficacy on the Productivity of Teachers in Technical Colleges in Niger State, Nigeria.

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Abstract

The study investigates the relationship between self-efficacy on the productivity of teachers in technical colleges in Niger State, Nigeria. The study employed a descriptive research design. The population of the study comprises 60 teachers from four (4) state Technical Colleges in Niger State. Purposive sampling was utilized to select the entire teachers from the state Technical Colleges in Niger State. A structured questionnaire of 4-point Likert scale was used to collect data which was validated by research experts. The study adopted Mean and standard deviation were employed to analyze and interpret the responses of the respondents regarding the items captured in each of the research instruments of self-efficacy and teachers' productivity while regression analysis was employed to ascertain the relationship between teachers' self-efficacy and their productivity. The findings of the study show that teachers' self-efficacy has a significant positive relationship with teachers' productivity. The study however recommends that teachers with low self-efficacy should seek the services of school counselors to counsel them on how to improve their self-efficacy which will lead to high productivity.

Keywords: Self-efficacy, Productivity, Teacher, Technical Colleges, Niger State

1 Introduction

1.1 Background to the study

Technical colleges play a crucial role in providing vocational education and training to students pursuing careers in various trades and industries. The successful delivery of knowledge by teachers depends not only on the curriculum and teaching methods but also on the effectiveness and productivity of the teachers involved. Teachers' productivity is a critical factor in determining the effectiveness and quality of education. Teachers' productivity refers to the efficiency and effectiveness with which individuals perform their work tasks. The productivity of BBC teachers encompasses various aspects, including their instructional effectiveness, student engagement, assessment of learning outcomes, and the creation of a conducive learning environment (Adah, *et al*, 2022). Productive teachers are able to efficiently manage their time, resources, and instructional practices, leading to improved student outcomes and overall classroom success Abusoman & Osiagbovo (2020). Highly productive BBC teachers can maximize student learning and skill development while effectively managing their own workload and time. However, the demanding nature of the teaching profession, with its myriad responsibilities and competing demands, can often challenge teachers' ability to maintain high levels of productivity.

Over the past years, there has been a significant paradigm shift in the relationship and effectiveness of teachers and students in technical colleges in Nigeria. Teachers' performance is influenced by not only the good relationship that plays out between the teacher and the students but also by the impact the teachers have on the overall development and motivation of the student (Tsigilis, Gregoriadis, Theodorakis, & Evaggelinou, 2017). The effectiveness of teaching is dependent on six important factors; include; teachers' knowledge, experience, capabilities, motivation, professionalism as well as the teachers' attitude (Noureen, Tahira & Shahzad, 2017) hence, understanding the factors that contribute to teachers' productivity is necessary.

One such factor is self-efficacy, an individual's belief in their ability to effectually perform a duty or achieve a goal as put forward by (Bandura, 1977), relating it to the domains of the teaching-learning process. To accomplish the goals of the school, teachers are encouraged by their sense of self-efficacy to work hard, in addition to boosting the teacher's confidence in their skills, which promotes collaboration between teachers at the same school, teachers from other regions of the nation, and the community at large are linked to social cognitive theory as posited by (Bandura 1977).

Teachers' self-efficacy represents their belief in their ability to carry out actions successfully to accomplish assigned tasks (Li, 2023). According to Oduma and Unachukwu (2022), self-efficacy is the assessment of one's ability to plan, organize, and successfully execute activities inside an organization. Teachers who have high self-efficacy are confident in their ability to efficiently carry out their educational tasks. It is confidence in one's capacity to demonstrate good behavior aimed at achieving certain goals. Moving on to education institutions, Adene, Offordillie, Ishiwu, and Magbo (2019) defined self-efficacy as instructors' confidence and capacity to carry out all of the actions required to create a good teaching-learning environment in the classroom. Operationally, self-efficacy is a teacher's positive belief and feeling about their ability to carry out their tasks effectively to achieve certain educational goals (Aluade&Eminike, 2024).

Bandura (1997) categorized self-efficacy into four levels; physiological and emotional states, social persuasion, vicarious experiences, and enactive mastery experiences (Van Blankenstein, et al., 2018). Wilde and Hsu (2019) stated that an individual's general self-efficacy affects their cognitive behaviors in a number of ways and that previous research has found general self-efficacy to influence how people interpret persuasive messages designed to encourage behavioral change. To buttress that, Barni, Danioni, and Benevene (2019) asserted that teachers with high levels of self-efficacy experience high levels of job performance, lower levels of job-related stress, and fewer difficulties with students' misbehavior. Therefore, self-efficacy is one's conviction about one's capabilities to perform a task at a certain level (Pentang & Domingo, 2024). A high level of efficacy is important for one to succeed in life as it motivates the individual to strive harder in a task (Ene, et al, 2020).

1.2 Statement of the Problem

Teachers play a crucial role in delivering high-quality education, but their productivity is often affected by their level of self-efficacy. In Nigeria, teachers face poor pay, less societal respect, and poor prospects compared to other professions. The country's rising unemployment rate could be attributed to the inability of teachers especially those in technical colleges to impart the required skills to students in the areas of Block/Bricks Laying and Concreting, automobile, woodwork craftwork amongst others that will enable the students to be self-reliant, this results in students lacking relevant skills for modern technologies and self-employment, thus, it is in line with the above that the study seeks to ascertain the level of self-efficacy of technical colleges teachers in Niger state, Nigeria.

1.3 Research Objectives

The main objective of the study is to investigate the relationship between self-efficacy and teachers' productivity among teachers of technical colleges in Niger State. Specifically;

- i. Determine the level of teachers' self-efficacy in Technical Colleges in Niger State, Nigeria.
- ii. Ascertain the level of teachers' productivity in Technical Colleges in Niger State, Nigeria.

1.4 Research Questions

The following research questions are asked;

1. What is the level of Teachers' self-efficacy in Technical Colleges in Niger State?
2. What is the level of Teachers' productivity in Technical Colleges in Niger State?

1.5 Significance of the study

The findings of this study will be beneficial to the following; the National Board for Technical Education (NBTE), teachers, students and society, and policymakers. For example, the findings of this study will be instrumental for the National Board for Technical Education (NBTE) in shaping effective policies and strategies aimed at improving the educational landscape. This research can inform the creation of training programs that equip educators with stress management skills, ultimately fostering a more supportive teaching environment.

1.6 Hypotheses

The following hypothesis is tested at a 0.05 level of significance

Ho1: There is no significant relationship between the level of self-efficacy and the productivity of teachers in Technical Colleges in Niger State, Nigeria.

2 Review of Related Literature

2.1 Theoretical framework

Social learning theory was put forward by Albert Bandura in 1977. This theory's central tenet is that people's capacities to create reality, self-regulate, encode knowledge, and carry out activities depend significantly on their cognitive talents. According to the Social Learning Theory of Self-efficacy, individuals develop their self-efficacy beliefs through a process of social learning. Teachers' self-efficacy beliefs can be influenced by various social factors. For example, observing other successful teachers who effectively manage their stress and maintain high productivity levels can serve as a source of inspiration and provide models for learning effective coping strategies. Similarly, interactions with colleagues, mentors, and supportive supervisors can play a role in shaping

teachers' self-efficacy beliefs. Positive feedback, encouragement, and constructive guidance can enhance teachers' belief in their capabilities to handle occupational stress and remain productive. This theory places a lot of focus on how learning occurs in two different ways: first, through observation, and second, through imitation of others who serve as models (Zakaria and Hamzah, 2021). To take into account how learning occurs through imitation, the idea of social cognition or social learning was proposed. Although it labels the development of abilities as exclusive, it only occurs within the core social groupings.

2.2 Empirical review

Tsado, et al (2024) researched the level of pressure of occupational stress and self-efficacy on block laying, bricklaying, and concreting teachers' productivity in technical colleges in North Central, Nigeria using a correlational research design method. Mean, standard deviation and regression analysis were used to estimate the data collected from the field using a structured questionnaire. The study found an inverse relationship between occupational stress and teachers' productivity while a positive and significant relationship between self-efficacy was established. Aluade and Eminike (2024) investigated self-efficacy as a predictor of teachers' self-efficacy in public schools in Edo state using simple regression analysis. The findings of the study revealed that self-efficacy is a significant predictor of teachers' job satisfaction in public schools in Edo State, Nigeria. Also, Oviawe and Omah (2021) studied self-efficacy and teacher's academic performance in Basic Technology in Edo State, Nigeria selecting six technical colleges employing a multistage sampling technique. The study employed Pearson Moment Correlation and regression analysis to analyze the data of the study. The findings of the study revealed a strong link associated with the self-efficacy of teachers and the success of students' academics in Basic Technology.

In another study carried out by Ismail (2021) on the influence of self-efficacy on the academic performance of senior secondary schools in Jigawa State applying a quasi-experimental research design. The study employed the use of post-tests and t-tests to estimate the data of the study. The findings revealed that there is no significant difference in self-efficacy between male and female teachers in the Ringim education zone and there is a significant difference in students' academic performance arising from teachers' levels of self-efficacy.

2.3 Research Gap and Contributions

Despite the growing body of literature on the self-efficacy of teachers the relationship between self-efficacy and productivity of technical colleges in Niger state, Nigeria has remained underexplored. This study aims to fill these gaps by

conducting mechanical, thermal, and durability tests on plastic-based bricks under real-world conditions.

2.4 Conceptual Framework

Bandura (1977) proposed the socio-affective idea of self-efficacy; it refers to an individual's belief in his or her capacity to execute behaviors necessary to produce specific performance attainments. The first study on teacher self-efficacy was conducted in the late 1970s by the Rand Corporation, building on the work and, more notably, Bandura's (1977) social cognitive theory. According to Bandura's (1977) social cognitive theory, teacher self-efficacy refers to the belief of educators in their abilities to manage particular teaching tasks at a desired level of quality within a specific context. According to Bandura (2006), individuals are self-organizing, active, self-regulating, and reflective in this definition. According to this viewpoint, self-efficacy influences one's behaviors and objectives and is impacted by both individual behavior and environmental factors (Schunk and Meece, 2006; Skaalvik and Skaalvik, 2010). One's self-efficacy can provide the foundation of motivation, well-being, and personal accomplishment. People's belief in their efficacy is developed by four primary sources of influence, including (i) mastery experiences, (ii) vicarious experience, (ii) social persuasions, and (iv) emotional states. Efficacy, in general, relates to people's views and beliefs about their ability to perform at a particular level of attainment as well as how they could approach problems and difficulties and choose to proceed with their actions (Ismail, 2021).

3 Methodology

3.1 Research design

The study adopts a descriptive research design method. The population of the study comprises of 60 teachers across four (4) Technical Colleges in Niger State. The sample of the study comprises of the entire population of the study determined using a purposive sampling technique. The reason for the selection of the purposive sampling technique was due to the fact that the population of the study is small and manageable.

3.2 Materials and Equipment

The researcher used a structured questionnaire titled "self-efficacy questionnaire" and "productivity questionnaire" as its research instrument adopted from the work of Tsado, et al (2024) with little modifications. These instruments were structured on a 4 points Likert scale rating of High-Level (HL)=4; Moderate Level (ML) =3; Low Level (LL) =2 and Nothing (N) for self-efficacy items and Sufficient (VS) =4; Sufficient (S)=3; Less Sufficient (LS) =2; Not Sufficient (NS)=1, for productivity items.

3.3 Method of data collection

The data for the study was administered, collected, and organized based on the research questions with the help of research assistants.

3.4 Method of data analysis

SPSS version 23 was used in the computation of the collected data from the field. Mean and standard deviation were used to interpret the responses of the respondents regarding the research instruments while regression analysis was employed to ascertain the significant impact of self-efficacy on teachers' productivity.

4 Results and Discussion

4.1 What is the level of teachers' self-efficacy in Technical Colleges in Niger State?

Table 1

S/No	Item	Mean	Standard Deviation	Rank
1	I can always manage to solve difficult problems if I try hard enough	3.14	0.77	ML
2	It is easy for me to stick to my aims and accomplish my goals	2.75	0.91	ML
3	I consider myself sufficiently qualified to face my task in my role as a teacher	3.11	0.95	ML
4	I am able to motivate students who show low interest in schoolwork	2.36	0.66	LL
5	I am able to easily handle challenging work tasks	2.46	0.64	LL
6	I am able to provide an alternative explanation for example when students are confused	2.49	0.69	ML
7	Collaboration between teachers and management to make the school run smoothly	3.86	1.12	HL
8	Contribute view freely on important school matters	3.21	0.98	ML
9	I remain calm when facing difficulties because I can rely on my coping abilities	2.81	0.72	LL
10	Even with demanding students I am confident in my ability to motivate them to their learning	1.78	0.79	LL
Grand Mean		2.80		ML

Source: Researcher's Computation (2025)

Key: HL= High Level ML= Moderate Level LL= Low Level NL= No Level

The result presented above shows that items 1, 2, 3, 7, and 8 have a mean score ranging from 2.75 to 3.86 indicating a moderate level of self-efficacy. However, items 4, 5, 6, and 10 have mean scores ranging from 1.78 to 2.49 suggesting a low level of self-efficacy. The grand mean of 2.80 depicts that the level of self-efficacy of teachers is moderate.

4.2 Research Question Two:

What is the level of teachers' productivity in Technical Colleges in Niger State?

Table 2

S/N	Item	Mean	Standard Deviation	Remark
1	I plan for and create assessments that measure student's achievement against standard	2.58	0.61	S
2	Assist students in establishing goals for learning	2.44	0.76	LS
3	Demonstrate the ability to discuss on an appropriate level the subject matter related to his/her assignment with students	3.35	0.68	S
4	Identifies and clearly communicates lesson objectives to students	2.48	0.79	LS
5	Collect and share evidence of students' learning	1.81	0.61	NS
6	Develops student's readiness for learning	2.16	0.82	LS
7	Respond sensitively to the various stages of the emotional, physical, and intellectual development of students	1.20	0.57	NS
8	Practice punctuality	3.34	0.92	S
9	Identifies errors made by students and deals with them appropriately	2.45	0.81	LS
10	Organizes arranges, and utilizes resources and equipment in a manner that promotes learning	3.62	0.76	VS
Grand Mean		2.54		S

Source: Researcher's Computation (2025)

Key: VS= Very Sufficient S= Sufficient LS= Less Sufficient NS= Not Sufficient

The result in Table 2 indicates that items 1, 3, and 8 are rated sufficient with their mean score ranging from 2.58 to 3.34. Accordingly, items 5 and 7 indicated not sufficient with a mean score ranging from 1.20 to 1.81. While item 10 was rated very sufficient with a mean score of 3.62, items 2, 4, and 9 were rated less sufficient with a mean score ranging from 2.44 to 2.48 respectively. A grand mean score of 2.54 suggests that the overall items on the level of productivity of teachers were rated sufficient.

4.3 Hypothesis one

H₀₁: There is no significant relationship between teachers' level of self-efficacy and the Productivity of BBC Teachers.

Table 3 Regression Result on Self-Efficacy and Teachers' Productivity

Model		Unstandardized Coefficients	Standardized Coefficients	T	Sig.	
		B	Std. Error	Beta		
1	(Constant)	2.8378	.196		5.407	.000
	Self-efficacy	.235	.101	.290	2.817	.022

a. Dependent Variable: Teachers Productivity

The regression result presented above shows a positive coefficient of 0.235 indicating that self-efficacy and teachers' productivity exert a positive relationship with each other. Accordingly, a t-statistic value of 2.817 and a p-value of 0.022 signify that self-efficacy has a significant relationship between it and teachers' productivity. Based on the result above, it is concluded that there is a significant relationship between self-efficacy and teachers' productivity in technical colleges in Niger State hence, the rejection of the null hypothesis and acceptance of the alternative hypothesis.

4.4 Comparisons with previous studies

The result presented in Table 1 indicated that respondents feel a moderate level of self-efficacy as seen in the grand mean score. The result concurs with the earlier study carried out by Tsado et al, (2024) who revealed that respondents feel somewhat level of self-efficacy when it relates to solving difficult issues, sticking to aims, and accomplishing their tasks as well as feeling confident in their role as teachers. This is also in line with the proposition of Bandura (1977) who sees self-efficacy as an individual's belief in their ability to effectually perform a duty or achieve a goal. The positive feeling of the respondents on self-efficacy conforms with the argument put forward by Aluade & Eminike (2024) which states that self-efficacy is a teacher's positive belief and feeling about their ability to carry out their tasks effectively to achieve certain educational goals. Also, the result presented in Table 2 shows the overall mean score of the level of productivity of teachers to be 2.54 indicating a sufficient level of teacher productivity aligning with the previous study carried out by Tsado, et al (2024) that found a sufficient level of teachers' productivity in BBC teachers in technical colleges in their study. The result in Table 2 shows that self-efficacy exerts a positive relationship with it and teacher productivity such that an increase in the level of self-efficacy of the teachers increases the productivity level of teachers by 23.4%. Accordingly, the p-value of the variable was 0.22 indicating a significant relationship between it and

teachers' productivity level. The result is synonymous with the findings of Tsado et al (2024), Aluade and Eminike (2024), Naoreen, *et al* (2020), Oviawe and Omah (2021) among others that found a strong positive link between self-efficacy levels of teachers and their productivity. This may be because self-efficacy shapes the belief of female teachers about their capabilities to perform their responsibilities and exert control over the work environment which could account for the significant prediction of their productivity.

4.5 Implication of findings

- 1 The result presented in Table 1 indicated that respondents feel a moderate level of self-efficacy as seen in the grand mean score therefore productivity can be affected either positively or negatively.
- 2 The result on Table 2 shows that self-efficacy exerts a positive relationship between it and teachers' productivity such that an increase in the level of self-efficacy of the teachers increases the productivity level of teachers by 23.4%.

5 Conclusion and Recommendations

To conclude this, the study is geared towards investigating the relationship between self-efficacy on the productivity of teachers in Technical Colleges in Niger State, Nigeria. Grounded on the statistical analysis as it has formerly been deliberated, it can be concluded that self-efficacy has a positive and significant relationship with teachers productivity of teachers of Technical Colleges in Niger State, Nigeria. The study therefore recommends that Teachers with low self-efficacy should seek the services of school counsellors to counsel them on how to improve their self-efficacy which will lead to high productivity.

Declarations

Ethical Approval and Consent to Participate:

This study was approved by the Department of Industrial and Technology Education,

Federal University of Technology Minna, Nigeria. Verbal and written informed consent were obtained from all participants before data collection. The study was done transparently.

Consent for Publication:

All authors consent to the publication of this manuscript and confirm that the work is original, has not been published elsewhere, and is not under consideration for publication elsewhere.

Competing Interests:

The authors declare no competing interests related to this study.

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Data Availability:

The datasets generated and analyzed during the current study are available from the corresponding author upon reasonable request.

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