

## LEVEL OF OCCUPATIONAL STRESS AND SELF-EFFICACY ON THE PRODUCTIVITY OF BLOCKLAYING, BRICKLAYING AND CONCRETING TEACHERS IN TECHNICAL COLLEGES IN NORTH CENTRAL, NIGERIA

Tsado, Elisha Garba, C.O. Igwe & T.M. Saba

Department of Industrial and Technology Education, Federal University of Technology,  
Minna, Nigeria.

Email: [elishagtsado@gmail.com](mailto:elishagtsado@gmail.com) Mobile No: 08131848814

### Abstract

*The study investigates the Level of pressure of occupational stress and self-efficacy on Blocklaying, Bricklaying and Concreting teachers' (BBC) productivity in Technical Colleges in North Central, Nigeria. The study utilized quantitative method. The population of the study was 83 BBC teachers from Technical Colleges offering BBC subjects in the 6 North Central States and the Federal Capital Territory. Census sampling was carried out to select the entire 83 BBC teachers from the Technical Colleges in North Central States including the FCT. The study used a structured questionnaire of a 4-point Scale rating as the instrument of data collection validated by 3 research experts. Frequency distribution, mean and standard deviation were employed to analyze the individual responses of the respondents while regression analysis was used to determine the relationship between level of pressure of occupational stress and level of self-efficacy on teachers' productivity of BBC teachers in Technical Colleges. The findings of the study revealed a coefficient of -0.3.46 of occupational stress and 0.260 of self-efficacy respectively indicating an inverse relationship between occupational stress and BBC teachers' productivity and a positive relationship between self-efficacy and BBC teachers' productivity. In addition, the study revealed that both occupational stress and self-efficacy have significant relationship with teachers' productivity at 5% level of parenthesis. The study however recommends that technical colleges should focus on implementing strategies that will effectively manage and reduce stress levels among teachers and focus on building teachers' self-efficacy belief.*

**Keywords:** Occupational Stress, Self-efficacy, BBC Teachers, Teachers' Productivity, Technical Colleges.

### Introduction

Technical colleges, also known as vocational schools or trade schools, are educational institutions that provide specialized training and education in various technical and vocational fields. These colleges offer programs that focus on developing practical skills and knowledge required for specific trades or industries. Some of the common programs offered in technical colleges include engineering programs such as electrical and civil engineering, information and technology programs, metal, wood and automobile programs, and construction and building programs such as block, bricklaying and concreting amongst others (Isola, 2019).

Blocklaying, Bricklaying, and concreting (BBC) are fundamental trades within the construction industry. BBC involves the construction and maintenance of structures using bricks, blocks, and concrete. The skills taught in BBC courses include brick and block laying, mortar mixing, concrete pouring, and finishing techniques, which requires qualified teachers. A teacher of Block/Bricks Laying and Concreting in a technical college is someone who has received the necessary and required training in Building Technology (Block/Bricks Laying and Concreting) from accredited institutions and is responsible for effectively influencing such knowledge in Technical Colleges. The necessity for competency arises from the fact that block/brick laying and concrete teachers are responsible for teaching the course outline.

Competence is the capacity to perform a given task accurately and satisfactorily (Abusomwan & Osaigbovo, 2020). The productivity of BBC teachers is derived from their ability to accomplish academic related task. Haslam, *et al.* 2021 posited that the ability of BBC teacher to deliver effective instruction, preparing lesson plans and employing various teaching strategies to impart technical knowledge and skills to students effectively and efficiently, fostering engagement, creating an inclusive learning environment, managing classroom dynamics, supporting individual student needs and continuous improving instructional practices can be regarded as BBC teachers' productivity. However, Upadhyaya (2021) argued that the teachers' productivity, which entails their ability to perform at the optimal level, is challenged by the stress they faced during teaching.

Stress is a crucial and unavoidable part of life. Up to a certain level, stress is acceptable as it helps to support everyone in becoming stronger and developing their capacities (Haslam *et al.* 2021). The social, physical, and psychological background of individuals determines how they perceive stress and how they react to it (Civilotti *et al.* 2021). However, stress is taken and dealt with in different ways by different individuals (Nelson & Bergeman 2021). It is also posited that some events and situations cause people to feel pressure, rigidity, and destructive emotions, which adds apprehension and antagonism to stress (Skodol 2021). Occupational stress is a kind of stress that arises due to the increased workload and the expectations of the management. Most of the teachers especially those in primary and secondary schools experience occupational stress (Upadhyaya 2021). Occupational stress increases when management perception such as lack of organizational support, open communication, recognition of stress influence among others, frustration, and conflict accumulates. Stress absorption capacity differs from person to person and with their socioeconomic conditions (Li *et al.* 2022). Accordingly, evidence has shown that occupational stress adversely affects not only teachers' productivity it negatively affects teachers' self-efficacy.

In order to accomplish the goals of the school, teachers are encouraged by their sense of self-efficacy to work hard. Additionally, it boosts the teacher's confidence in their skills, which will promote collaboration between teachers at the same school, teachers from other regions of the nation, and the community at large (Babu, *et al.* 2022). Numerous earlier research, such as those by Burley, *et al.* (2021), Glickman, and Tamashiro (2022), claim that teachers' self-efficacy can help determine whether they will be negatively impacted by job stress and leave their jobs. According to a further study by Friedman and Farber (2019), revealed self-efficacy beliefs affect an individual self-regulation process.

#### **Statement of the Problem**

Teachers play a crucial role in delivering high-quality education, but their productivity is often affected by occupational stress and 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, resulting in students lacking relevant skills for modern technologies, thus, it is in line with the above that the study seek to ascertain the influence of occupational stress and self-efficacy on productivity of Blocklaying, Bricklaying and concreting teachers in technical colleges in North Central, Nigeria.

#### **Objective of the Study**

The objectives of the study are:

1. Ascertain the level of pressure of occupational stress on the BBC teachers in Technical Colleges in North Central, Nigeria?

- Determine the level of self-efficacy on BBC teachers in Technical Colleges in North Central, Nigeria.

### Research questions

The following research questions are asked:

- What is the level of pressure of occupational stress on BBC teachers in Technical Colleges in North Central, Nigeria?
- What is the level of self-efficacy on BBC teachers in Technical Colleges in North Central, Nigeria?

### Hypotheses

The following null hypotheses are formulated to guide the study and will be tested at 0.05 level of significance:

Ho1: There is no significant relationship between the level of pressure of occupational stress and the productivity of BBC teachers in Technical Colleges in North Central, Nigeria.

Ho2: There is no significant relationship between level of self-efficacy and the productivity of BBC teachers in Technical Colleges in North Central, Nigeria.

### Methodology Research Design

Correlational research design was adopted for this study. A correlational research design method is a non-experimental research design method that examine the statistical relationship between two or more variables. The population of the study consist of 83 Blocklaying, Bricklaying and Concreting Teachers (BBC) from all the Technical Colleges in North Central Nigeria accredited by National Board for Technical Education (NBTE) and offering BBC as a trade. The researcher used a structured questionnaire titled "occupational stress, self-efficacy questionnaire" as its research instrument. The data for the study was collected and organized based on the research questions and hypotheses of the study. SPSS 23 was used in the computation of the collected data from the field. The study adopted a regression analysis to estimate the data of the study.

### Result and Discussion

#### Research Question One: How are the Pressures of occupational stress on BBC teachers in Technical Colleges?

Table 1.

S/No	Item	Mean	Standard Deviation	Remark
1	Time pressures and deadlines	3.51	0.79	EP
2	Workload	3.32	0.79	CP
3	Task outside of my competence	3.07	0.72	CP
4	Security of employment	3.24	0.77	CP
5	Staff shortage	3.29	0.79	CP

6	Poor physical condition	working	3.71	0.82	EP
7	Lack of support from senior staff		2.29	0.73	MP
8	Shortage of essential resources		3.01	0.71	CP
9	Lack of participation in planning/decision making		2.26	0.67	MP
10	Lack of privacy		1.41	0.55	NP
11	Dealing with relatives		1.33	0.60	NP
12	Unsocial hours		2.81	0.81	MP
13	Unsafe environment		3.52	0.79	EP
14	Coping with new technology		3.00	0.70	CP
15	Lack of specialized training for present work		1.97	0.57	NP
	<b>Grand Mean</b>		<b>2.78</b>		<b>CP</b>

**Key:** EP= extreme pressure CP= considerable pressure MP= moderate pressure NP= no pressure

Table 1 shows the mean values of 15 item fall within the range 2.50 and 3.49 indicating that respondents rated it as considerable pressure, The grand mean of the respondents as presented above is 2.78 meaning that the respondents rated the pressure of occupational stress of BBC teachers in technical colleges as considerable pressure.

### 3.2 Research Question Two: What is the level of self-efficacy of BBC teachers in Technical Colleges?

Table 2

S/No	Item	Mean	Standard Deviation	Rank
1	I can always manage to solve difficult problems if I try hard enough	3.34	0.77	ML
2	It is easy for me to stick to my aims and accomplish my goals	2.57	0.91	ML
3	I consider myself sufficiently qualified to face my task in my role as a teacher	3.01	0.79	ML
4	I am able to motivate students who show low interest in school work	2.46	0.66	LL

5	I am able to easily handle challenging work tasks	2.46	0.62	LL
6	I am able to provide an alternative explanation for example when students are confused	2.51	0.68	ML
7	Collaboration between teachers and management to make the school run smoothly	3.68	1.02	HL
8	Contribute view freely on important school matters	3.12	0.98	ML
9	I remain calm when facing difficulties because I can rely on my coping abilities	2.18	0.72	LL
10	Even with demanding students I am confident in my ability to motivate them for their learning	1.98	0.59	LL
11	Confident to address situations that test my ability	2.71	0.71	ML
12	I am easily able to get students to work together as a team	2.67	0.77	ML
13	I can easily establish a classroom management system with each group of students	3.55	0.81	HL
14	I easily get students to work together	1.90	0.62	LL
15	I ensure I respond to students feedback	2.98	0.76	ML
	<b>Grand Mean</b>	<b>2.74</b>		

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

Table 2 shows 15 item have mean scores ranging from 2.50 to 3.49 indicating that the respondents have a moderate level of self-efficacy .The grand mean of 2.74 depicts that the level of self-efficacy of BBC teachers is moderate.

**Hypothesis One**

H<sub>0</sub> 1: There is no significant relationship between of level of pressure of occupational stress on teachers’ productivity of BBC teachers in North Central Region, Nigeria. Based on the t-statistic value of the regression result obtained above as well as its corresponding p-value, the value -

3.022 and 0.003 are within the threshold of the rule of thumb that posited that a variable is statistical significant if the t-statistic value is greater than or equal to 2 irrespective of the sign or if the p-value is less than or equal to 0.05.

**Regression Result 1**  
**Coefficients<sup>a</sup>**

	Unstandardized Coefficients		Standardized Coefficients	
	B	Std. Error	Beta	
(Constant)	2.813	.331		8.486 .000
Level of pressure of Stress	-.346	.114	-.333	-3.022 .003

a. Dependent Variable: Level\_of\_BBC\_Teachers\_Productivity

The relationship between level of pressure of stress and teachers' productivity is shown in the above table using regression analysis. Result from the table shows that constant has a coefficient of 2.813 suggesting that if there were no pressure of occupational stress experienced by teachers of BBC, their level of productivity will be around 28.13%. Accordingly, Level of pressure of stress has an inverse coefficient  $-.346$  signifying that as the teachers experience increased level of pressure of stress, their productivity declined by 34.6% significantly.

#### **Hypothesis Two**

The hypothesis is stated as follows;

Ho2: There is no significant relationship between teachers' level of self-efficacy and the Productivity of BBC Teachers.

The findings of the regression result shows that teachers' self-efficacy level has t-statistic value 0.257 and p-value of 0.012, this values suggest that teachers' self-efficacy level is significant based on the rule of thumb.

## Regression Result 2

### Coefficients<sup>a</sup>

	Unstandardized Coefficients		Standardized Coefficients	
	B	Std. Error	Beta	
(Constant)	1.378	.196	7.047	.000
Level of self-efficacy	.260	.101	.290	2.587 .012

#### a. Dependent Variable: Level\_of\_BBC\_Teachers\_Productivity

The regression result presented, slope of the intercept has a positive relationship with the level of productivity of teachers such that if self-efficacy is hold fixed, and teachers' productivity will be 13.78%. Accordingly, a positive and significant relationship has been established between level of self-efficacy and teachers' productivity such that an increase in the level of self-efficacy of the teachers will lead to a corresponding increase in teachers' productivity by 26.0%. The variable is observed to be significant at 5% level of significance looking at the p-value and t-statistic values respectively.

### Discussion of Findings

The findings of the study on table 1 revealed that most of the respondent feel considerable pressure when its relates to workload, task outside of their competence, security of employment, staff shortage, shortage of essential resources and coping with new technology. Accordingly, the overall mean of the respondents revealed a considerable pressure on the items captured in table one. The findings align with the assertion of Lazarus (1966) in his transitionary theory of stress that postulates that stress occur because of transaction that took place between man and his environment.

The findings of the result presented in table 2 shows that majority of the respondents feel moderate level of self-efficacy to the level of self-efficacy on their productivity. This is in conformity with the social learning theory put forward by Bandura (1977) suggesting that the central tenet of individual capacities to creates reality, self-regulate, encode knowledge, and carry out activities depend significantly on their cognitive talents which improves their performances.

Hypothesis one revealed an insignificant relationship between the mean score of level of pressure of occupational stress and teachers' productivity of BBC teachers in Technical Colleges in North Central, Nigeria. This was found, as the p-value is greater than the conventional 0.05 level of significance hence, the rejection of null hypothesis.

The findings of the hypothesis two presented on table 7 revealed a significant relationship between level of self-efficacy and teachers' productivity of BBC teachers in Technical Colleges in North Central, Nigeria. This was found, as the p-value 0.00 is less than the conventional 0.05 level of significance hence, the rejection of null hypothesis.

### Conclusion

To conclude this, the study geared towards investigating the level pressure of occupational stress and self-efficacy on productivity of BBC teachers in Technical Colleges in North Central, Nigeria. Grounded on the statistical analysis as it has formerly been deliberated, it can be concluded that the work-related stress and teachers' productivity of BBC teachers of

Technical Colleges in North Central, Nigeria, possess a significant negative relationship whereas, the study concludes that self-efficacy on the other hand has a positive and significant relationship with teachers' productivity of BBC teachers of Technical Colleges in North Central, Nigeria.

### Recommendation

Based on the results of the study on the level of pressure of occupational stress and self-efficacy on the productivity of BBC teachers in Technical Colleges in North Central, Nigeria, the following recommendations can be made:

1. Given the significant negative relationship between occupational stress and teachers' productivity, it is crucial to implement strategies that effectively manage and reduce stress levels among teachers.
2. Although self-efficacy had a positive relationship with teachers' productivity, it is still important to focus on building and enhancing teachers' self-efficacy beliefs.

### References

- Abusomwan, S., S. & Osaigbova, L. (2020). Competency Improvement Needs of Teachers of Brick/Block Laying and Concreting Works. *Journal of Education and Learning (EduLearn)*, 14(4), 517-524. DOI: 10.11591/edulearn.v14i4.16450 □ 517 Journal homepage: <http://journal.uad.ac.id/index.php/EduLearn>
- Civilotti, C.; Botto, R.; Maran, D.A.; Leonardis, B.D.; Bianciotto, B.; Stanizzo, M.R. (2021). Anxiety and Depression in Women Newly Diagnosed with Breast Cancer and Waiting for Surgery: Prevalence and Associations with Socio-Demographic Variables. *Medicina*, 57, 454. <https://doi.org/10.3390/medicina57050454>
- Friedman, I. A., & Farber, B. A. (2019) Professional Self-Concept as a Predictor of Teacher Burnout. *The Journal of Educational Research*, 86(1), 28-35.
- Glickman, C. D., & Tamashiro, R. T. (2022). A Comparison of First-Year, Fifth-Year, and Former Teachers on Efficacy, Ego-Development, and Problem-Solving. *Psychology in the Schools*, 19, 558-562.
- Haslam, S. A., Steffens, N. K., Reicher, S. D., & Bentley, S. V. (2021). Identity Leadership in a Crisis: A 5R Framework for Learning from Responses to COVID-19. *Social Issues and Policy. Review*, 15(1), 35– 83. <https://doi.org/10.1111/sipr.12075>
- Ismail, N. (2021). Influence of Teachers' Self-Efficacy on Academic Performance of Senior Secondary School Students in Jigawa State, Nigeria. *Kano Journal of Educational Psychology*, 3(1), 19-25.
- Isola, R. (2019). Concept of Teaching. *Shanlax International Journal of Education*, vol. 7, no. 2, 2019, 5-8
- Naoreen, B., Tahira, S., S. & Shahzad, S. (2020). Impact of Self-Efficacy of University Teachers on their Performance. *Elementary Education Online*, 19(3), 2241-2248.

Nelson N. A., and Bergeman C., S. (2021). Daily Stress Processes in a Pandemic: The Effects of Worry, Age, and Affect. *Gerontologist*. 23;61(2):196-204.doi: 10.1093/geront/gnaa187. PMID: 33186445; PMCID: PMC7717331.

Nurinda, A., Akil, M. & Jafar, B. (2019). Teachers' Self-Efficacy in Teaching Literature in the Interest-Based Classes at Senior High School. *Journal of Language Teaching and Research*, 10(8), 1271-1278.