

## Perceived Performance of NCE (Technical) Teachers in Teaching Basic Technology in Selected Junior Secondary Schools in Port Harcourt Metropolis, Rivers State

Ehimen, Theophilus Ehije (Ph.D.)

*Department of Technology Entrepreneurship, Rivers State University.*

Corresponding author: [theophilus.ehimen@ust.edu.ng](mailto:theophilus.ehimen@ust.edu.ng)

DOI: <https://doi.org/10.62154/qjhcet.2024.017.010515>

### Abstract

This research on the perceived performance of Nigeria Certificate in Education (Technical) teachers in teaching basic technology in selected junior secondary schools in Port Harcourt Metropolis, Rivers State adopted a survey research design. The population of the study was 360 respondents, made up of 150 administrators and 210 basic technology teachers. Proportionate stratified random sampling technique was adopted in selecting the sample size of 260 respondents which comprises 100 principals, vice principals, Head Teachers in Basic Technology Teachers and 160 basic technology teachers was used for the study. A questionnaire with 35 items prepared by the researcher was used having in mind the research questions. The response options were Very High Extent, High Extent, Moderate Extent, Low Extent and very Low Extent and rated 5,4,3,2 and 1 point(s) scale respectively. The Cronbach Alpha co-efficient test of reliability for the instrument was 0.84. Data collected was analyzed using the SPSS version 22.0 computer package in computing the mean and standard deviation scores while Z-test was used in testing the null hypotheses for the research questions at 0.05 level of significance. The findings revealed among others that the perceived performance of basic technology teachers in imparting the cognitive knowledge was found to be High Extent in Port Harcourt Metropolis Rivers State. It was suggested that Government should use experts in technical education to organize training programme in form of workshops and seminar for basic technology teachers from time to time to enhance teachers' performance both theoretically and practically among others.

**Keywords:** Performance, Perceived, Teachers, Basic Technology, Assessment.

### Introduction

All teacher training institutions in Nigeria strive within resources to provide the knowledge, skills and abilities that would transform prospective teachers into competent and effective classroom teachers. Teachers' effectiveness according to Onyemachi, Nwachukwu and Igbo (2015) is an indication of a group of activities performed on the achievement of an intended learning outcome. With respect to technical teacher education, this effectiveness depends on the caliber of training-received while in college and the experience acquired on the job.

For teachers of basic technology, another important ingredient apart from being effective is competence. Before technical teachers can be effective, they need first of all to be competent and this cannot be achieved unless they pass through variable training programme. In support of this Kabiru (2012) said that a viable teacher education programme is one that aims at turning out teachers who are intellectually, socially and professionally competent. Sarkees and Scott (2018) stated that competent teachers are a key factor in providing quality technical education which is an important ingredient for a healthy economy, because it produces the most important resources that is technical manpower needed for the economy. This is a fact that the Nigerian nation cannot run away from. We need competent Technical Teachers who can impact the skills and knowledge necessary for the country's technological development.

Colleges of education have for some years graduating NCE (Technical) teachers to teach pre-vocational subjects at the Junior Secondary Schools stage of the education system. The pre-vocational subjects collectively called basic technology prepare junior secondary school secondary levels. As planned basic technology, a combination of basic elements of metal work, woodwork, building, automobiles, and electrical/electronics forms the beginning and foundation of Nigeria's effort in providing formal basic technological literacy to its citizens. Teachers of basic technology have a vital role to play in Nigeria's march towards technological development. Ukeje (2018) while commending on the role of Teachers said that if education is the key that leads to modernization, it is the teacher that holds the key that unlocks the doors. In the same vein the quality of knowledge and skills that students receive from their teachers is a function of how well trained the teachers are. The teacher is the backbone of the entire educational process. Further, Ukeje (2018) submitted that: Teaching is the most vital and strategic profession for national development. Without teachers there can be no good doctors, engineers, lawyers etc. The mistake of the teacher and therefore a defective education programme has more devastating effects on the nation than the mistakes of other professionals.

In view of the above and for teachers of technology not to mislead students, it is paramount that they should be competently trained. For programmes in technical education to be viable and to serve the needs of the nation there is the need for competent teachers. The Oxford Advanced Learners Dictionary of Current English (2000) defined competency as having the ability to do something well. The professional teacher must be competent to teach the subject matter he has been trained to teach at the appropriate level. For teacher competence, the following should be provided;

- a. Subject matter: Appropriate and relevant knowledge of facts, principles, concepts and laws needed to sustain cognitive development of the subject.
- b. Pedagogy: Exposure and experience in principles and practice of education and in the art of teaching as an aid to meaningful learning.
- c. Skill processes: Facilitate the development and acquisition of appropriate manipulative and other skills.

- d. Evaluate: Self and students evaluation through appropriate construction of tests, their analyses and inferences Kabiru (2012).

The basic technology curriculum national objectives according to the National Policy of Education (2013) are:

- i. To provide pre-vocational orientation in technology
- ii. To provide basic technological literacy for everyday living and
- iii. To stimulates creativity

The curriculum of basic technology contained many topics that cut cross Automobiles Building, metal work, electrical/electronics and woodwork technology in addition to learning many topics that are specific in each of these areas (Kolawole, 2019). Technology teachers' knowledge of the curriculum content must not be underscored and should come second to none in terms of importance. Teachers cannot teach what they don't know, because to be able to teach and to make students understand important concepts and processes, teachers need to know technology as deeply in fact, more so. It technology teachers do not understand deeply the technology concepts they are trying to teach. One cannot expect their students to learn (Rodger and Susan 2020). Technology require people who are fluent in their subject matter according to McDiamird, Ball and Anderson (2016), are distinguished from others in at least three (3) respects:

- i. They know a great deal of specific content i.e., fact and ideas.
- ii. They have formed a variety of complex relationship among those views of content and
- iii. They understand how to approach new problems or dilemmas and how to produce new ideas within the subject for optimum performance in teaching and to make students develop a better appreciation and understanding of the concepts, principles, laws, and facts that have been gathered through centuries of inquiry and experimentation in science and technology.

Furthermore, pedagogical knowledge according to Stephen and Constance (2017), is a view on a continue with educators acquiring more of it through appropriate training and experience. Educators acquire at before they begin teaching, during their preserve training and during the teaching careers. Pedagogical skill and knowledge require blending of subject matter with knowledge of students. Knowing how students are likely to interpret what they see, do, and what kinds of misunderstanding students are likely to hold about technological concepts and knowledge. A pedagogically sound technology teacher should be able to create behavioral changes using available means at his disposal. The pedagogy of teaching calls for effective communication from the teachers. Weglinsky (2010) said that communication ability is a fundamental requirement for teachers if they are to pass across ideas, concepts and skills to the students. As deep as their understanding of technology often is, many individuals cannot teach it effectively.

Ability to assess students learning can be regarded as one of vital pre-requisites to successful teaching. This is because when teachers teach, there is an anticipated gain in knowledge, skill and/or change in behavior. However, the correct judgement of such

achievement or change as well as the proper and unbiased recording and documenting is what assessment is mostly concerned with. Okeke (2018) write, that vocational technology education requires making value judgments on some human factors. These human factors include interest, work habit effect, skill, qualities of leadership etc. Most often assessment is seen by beginner teachers as separate from the instructional process. Glatthorn (2019) wrote that teachers need to think of assessment as an extension of instruction not as separate from it. The assessment process is often continuous and include checking for understanding and misunderstanding before, during interactive teaching and afterwards. Pre-instructional assessment can help teachers determine the most appropriate starting point for instruction and identify non-educational causes that are hampering students learning. Writing on the importance of pedagogical content knowledge Reynolds, (2021) said that the teacher must have knowledge of using appropriate evaluation methods to assess students understanding of content knowledge. In the same vein Kannanil and Clemens (2018) investigated and found out that frequent assessment and feedback as one of the school practices that distinguish high from low performing schools.

### **Statement of the Problem**

Attempts have been made by Nigeria government through institutions of higher learning to train large numbers of technology teachers. Professional development and training of teachers of technology has occurred over the past two decades and thousands of technology teachers has been teaching basic technology after receiving training in colleges of education spread across the length and breadth of this country. This is the need to examine through research the performance of practicing technical teachers. The implementation of the basic technology curriculum in Junior Secondary Schools forms the bedrock on which further technological studies rests. Greater responsibility is placed on the teachers' performance in teaching the subject. It is the teacher's performance that determine what the students acquire in terms of knowledge and basic technological skill at the end of the first three years of secondary school education. Teachers' utterances, actions, leadership styles, knowledge of the subject and skills in teaching were all considered important factors in student learning (Ezeji, 2004). Through the influence of information and communications technology cannot be denied, in actual fact teachers still remain the most influential agents in the teaching and learning process (Abe, 2014). Much of what students learn depends on the strategies, and classroom activities, plans, and processes designed by the teachers.

However, in spite of the above fact, teachers have been reported to make use of ineffective and outdated teaching strategies that are less learner friendly in the teaching of secondary subjects in Nigeria (Olorundare, 2017). Yalams and Fatokun (2017) opines that the National performance for both pupils and students were below 50% into worst performances observed in JSS3. Inadequate teachers and outdated teaching strategies have been advanced as some of the reasons crippling basic education (Kolawole, 2019).

Other reasons notwithstanding, the poor performance cannot be unconnected with teachers' performance in teaching the subject. This is an unsatisfactory state of affairs. What could be responsible for this? Could it be that teachers are not knowledgeable enough? Could it be that teachers are not pedagogically sound? Could it be that teachers are not vast in continuous assessment techniques? While most assessment studies focus on external factors affecting the teaching of basic technology, much is yet to be done by way of research into teacher's performance in teaching basic technology. The study is therefore focused towards assessing of the perceived performance of NCE (Tech). Teachers in teaching basic technology in some selected Junior Secondary Schools in Port Harcourt Metropolis Rivers State.

## Purpose of the Study

The main purpose of this study was to assess the perceived performance of NCE (Tech.) Teachers in teaching basic technology in some selected Junior Secondary Schools in Port Harcourt, Rivers State. Specifically, the study determines the extent:

- i. Perceived performance of NCE (Tech.) teachers in imparting the cognitive component of teaching basic technology in Junior Secondary Schools Port Harcourt metropolis, Rivers State.
- ii. Perceived performance of NCE (Tech.) teacher in the pedagogy of teaching basic technology in Junior Secondary Schools Port Harcourt metropolis, Rivers State.
- iii. Perceived performance of NCE (Tech.) teachers in the assessment of students learning of basic technology in Junior Secondary Schools Port Harcourt metropolis, Rivers State.

## Research Questions

The following research questions guided the study:

- i. To what extent does perceived performance of NCE (Tech.) teachers in imparting the cognitive component of teaching basic technology in Junior Secondary Schools Port Harcourt metropolis?
- ii. To what extent does perceived performance of NCE (Tech.) teachers in the pedagogy of teaching basic technology in Junior Secondary Schools Port Harcourt metropolis?
- iii. To what extent does perceived performance of NCE (Tech.) teachers in the assessment of students learning of basic technology in Junior Secondary Schools Port Harcourt metropolis?

## Hypotheses

The following null hypotheses formulated were tested at 0.05 level of significance.

**H<sub>01</sub>:** There is no significant difference in the mean ratings of Administrators and NCE (Tech.) teachers with respect to imparting the cognitive component of teaching basic technology in Junior Secondary Schools Port Harcourt metropolis.

**Ho<sub>2</sub>:** There is no significant difference in the mean ratings of Administrators and NCE (Tech.) teachers with respect to the pedagogy of teaching basic technology in Junior Secondary Schools Port Harcourt metropolis.

**Ho<sub>3</sub>:** There is no significant different in the mean ratings of Administrators and NCE (Tech.) teachers with respect to the assessment of students learning of basic technology in Junior Secondary Schools Port Harcourt metropolis.

### Methodology

The study adopted the survey research design. The population for the study is 360 which consists of 150 Administrators and 210 NCE (Tech.) teachers teaching basic technology in selected Junior Secondary School in Port Harcourt metropolis, Rivers State. The sample size was 260 respondents using proportionate stratified random sampling technique Administrators 100 while NCE (Tech.) teachers 160 respondents respectively. A structure questionnaire designed by the researcher with 35 items was used to illicit information from the respondents. The questionnaire was subdivided into 2 sessions. Section A on personal data of respondents' background, while section B with 35 items addressed research questions. The response options were Very High Extent (VHE) High Extent (HE), Moderate Extent (ME), Low Extent (LE) and Very Low Extent (VLE) and rated 5,4,3,2 and 1 point(s) respectively using five points likert ratings scale. The instrument for data collection was face validated by three experts in measurement and evaluation in Department of Educational Foundation, Rivers State University, Port Harcourt. The Cronbach Alpha coefficient test of reliability for the whole instrument was 0.84, indicating the reliability of the instrument. Data collected for the three research questions were analyzed using SPSS version 22.0 computer package in computing the mean and standard deviations. Mean score above 3.00 is regarded as High Extent, while mean score below 3.00 is regarded Low Extent. Z-test was use in testing the null hypotheses at 0.05 level of significance.

### Results

Research Question 1: To what extent does perceived performance of NCE (Tech.) teachers in imparting the cognitive component of teaching basic technology in Junior Secondary Schools Port Harcourt metropolis.

**Table 1:** Mean rating of Administrators and NCE (Tech.) teachers in imparting the cognitive component of teaching basic technology in Junior Secondary Schools Port Harcourt metropolis.

S/N	Item Statements	Administrators N=100		Teachers N=160		Overall Analysis and Decision		
		$\bar{X}_{Ad}$	SD	$\bar{X}_T$	SD	$\bar{X}$	SD	Decision
	Ability to:							
1.	Use technical drawing instrument	4.10	0.78	3.15	0.86	3.63	0.82	High Extent
2.	Impart properties of engine materials	4.20	0.64	4.26	0.55	4.23	0.60	High Extent
3.	Impart energy conversion	4.08	0.88	4.05	0.81	4.07	0.85	High Extent
4.	Impart knowledge of electricity	4.34	0.69	3.15	0.76	3.75	0.73	High Extent
5.	Impart the knowledge of electrical measuring instrument	4.35	0.54	3.60	0.95	4.00	0.75	High Extent
6.	Impart knowledge of principles of fluid flow	3.83	0.77	4.85	0.66	4.34	0.72	High Extent
7.	Impart knowledge of magnetism	3.45	0.52	3.70	0.80	3.60	0.66	High Extent
8.	Impart knowledge of building construction	4.74	0.18	4.25	0.65	4.50	0.48	High Extent
9.	Impart knowledge of bench work tools	3.43	0.68	3.35	0.67	3.39	0.68	High Extent
10.	Impart knowledge of friction and its effects	4.27	0.76	3.20	0.70	3.74	0.73	High Extent
11.	Impart knowledge energy sources	4.34	0.88	4.15	0.78	4.25	0.83	High Extent
12.	Impart knowledge of general machines operations	3.35	0.35	3.95	0.65	3.65	0.50	High Extent
13.	Impart knowledge of principles of fluid flow	4.60	0.35	4.06	0.86	4.33	0.61	High Extent
14.	Impart the knowledge of maintenance of simple domestic appliances	3.22	0.65	3.85	0.75	3.54	0.05	High Extent
15.	Impart the knowledge of safety rules and regulation.	3.03	0.77	3.60	0.65	3.32	0.17	High Extent
	<b>Grand Mean and Standard Deviation</b>	<b>3.96</b>	<b>0.63</b>	<b>3.81</b>	<b>0.74</b>	<b>3.89</b>	<b>0.69</b>	<b>High Extent</b>

**Source:** Field Survey, 2024.

Table 1 above showed grand mean value of 3.89(0.69) which is within the real limit of 2.50 to 3.49, indicates that administrators and NCE (Tech) teachers on the perceived performance of basic technology teachers in imparting the cognitive component of basic technology curriculum is to a high extent in teaching Junior Secondary Schools Port Harcourt metropolis.

**Research Question 2:** To what extent does perceived performance of NCE (Tech.) Teachers in the pedagogy of teaching basic technology in Junior Secondary Schools Port Harcourt metropolis?

**Table 2:** Mean ratings of Administrators and NCE (Tech.) Teachers in the pedagogy of Teaching Basic Technology in Junior Secondary Schools Port Harcourt metropolis.

S/N	Item Statements	Administrators N=100		Teachers N=160		Overall Analysis and Decision		
		$\bar{X}_{Ad}$	SD	$\bar{X}_T$	SD	$\bar{X}$	SD	Decision
16.	Reinforcing students' responses	4.25	0.65	3.33	0.57	3.79	0.61	High Extent
17.	Using concrete technological examples during teaching	3.35	0.85	4.05	0.88	3.70	0.87	High Extent
18.	Allowing students to participate actively during presentation	4.25	0.77	3.67	0.76	3.96	0.77	High Extent
19.	Planning lessons prior to teaching	3.25	0.95	4.16	0.88	3.71	0.92	High Extent
20.	Teaching simple concepts prior to difficult ones	4.25	0.85	3.35	0.75	3.78	0.80	High Extent
21.	Utilizing appropriate instructional material to facilitate teaching	3.36	0.65	4.50	0.90	4.08	0.78	High Extent
22.	Using simple technical language during presentation	4.55	0.75	3.65	0.35	4.10	0.55	High Extent
23.	Recapitulating the main points of a lesson before rounding up	3.85	0.88	4.15	0.65	4.00	0.77	High Extent
24.	Following the basic technology syllabus when planning lesson	4.55	0.77	3.65	0.78	4.10	0.78	High Extent
25.	Outlining achievable behavioural objectives for every planned lesson	3.85	0.88	3.07	0.80	3.46	0.84	High Extent
<b>Grand Mean and Standard Deviation</b>		<b>3.98</b>	<b>0.80</b>	<b>3.73</b>	<b>0.73</b>	<b>3.86</b>	<b>0.77</b>	<b>High Extent</b>

**Source:** Field survey, 2024.

Table 2 showed analysis of data with respect to basic technology teachers' pedagogy performance in teaching basic technology, it showed a grand mean of 3.86 (0.77) which indicates a high extent in teachers' performance in the use of pedagogies of teaching basic technology in Junior secondary school in port Harcourt metropolis.

**Research Question 3:** To what extent does perceived performance of NCE (Tech.) teachers in the assessment of students learning of basic technology in Junior Secondary Schools in Port Harcourt Metropolis.



**Table 3:** Means ratings of Administrators and NCE (Tech.) teachers in the assessment of students learning of basic technology in Junior secondary schools in port Harcourt metropolis.

S/N	Item Statements	Administrators N=100		Teachers N=160		Overall Analysis and Decision		
		$\bar{X}_{Ad}$	SD	$\bar{X}_T$	SD	$\bar{X}$	SD	Decision
26.	Ability to develop test items	3.45	0.96	3.55	0.88	3.50	0.92	High Extent
27.	Following the syllabus when constructing test	4.25	0.76	4.58	0.75	4.42	0.76	High Extent
28.	Knowledge of assessment types	3.35	0.78	4.05	0.70	3.70	0.74	High Extent
29.	Preparing tests at the appropriate time	4.95	0.56	3.58	0.65	4.27	0.61	High Extent
30.	Providing regular feedback of students test scores	3.70	0.55	3.48	0.84	3.59	0.70	High Extent
31.	Using direct observation of attitudinal change	3.65	0.67	4.75	0.76	4.20	0.72	High Extent
32.	Administrating test based on the time table.	4.01	0.75	3.65	0.66	3.83	0.71	High Extent
33.	Supervising the administration of test to students	3.76	0.88	3.05	0.75	3.41	0.82	High Extent
34.	Keeping students' objectives as guide when preparing test.	4.05	0.76	3.65	0.85	3.85	0.81	High Extent
35.	Using lesson objectives as guide when preparing test	4.65	0.85	4.04	0.45	4.35	0.65	High Extent
	<b>Grand Mean and Standard Deviation</b>	<b>3.98</b>	<b>0.75</b>	<b>4.39</b>	<b>0.73</b>	<b>4.19</b>	<b>0.74</b>	<b>High Extent</b>

Table 3 above showed analysis of data concerning the performance of basic technology teachers in the assessment of students learning in Junior secondary schools. Results indicates high extent performance with grand mean of 4.19(0.74) of students in learning basic technology in junior secondary school in Port Harcourt metropolis.

### Analysis of Hypotheses

Hypothesis ( $H_{01}$ ): There is no significant difference in the mean rating of Administrators and NCE (Tech.) teachers with respect to the imparting the cognitive component of teaching basic technology in Junior Secondary Schools Port Harcourt metropolis.

Table 4: Z-test for mean ratings of Administrators and NCE (Tech.) Teachers on imparting the cognitive component of teaching basic technology in Junior Secondary Schools Port Harcourt metropolis.

Variables	N	$\bar{X}$	SD	df	Z-cal	Z-table	Decision
Administrators	100	3.96	0.36				
				258	2.25	1.96	Significant
NCE (Tech) Teachers	160	3.81	0.74				

From the result of the Z-test in Table 4, Z-calculated of 2.25 is greater than the Z critical table of 1.96 and the null hypothesis is therefore rejected. It indicates that at  $P \leq 0.05$ , there

is significant difference in the mean rating of Administrators and NCE (Tech.) teachers with respect to the imparting the cognitive component of teaching basic technology in Junior Secondary Schools Port Harcourt metropolis.

Hypothesis ( $H_{02}$ ): There is no significant difference in the mean ratings of Administrators and NCE (Tech.) teachers with respect to the pedagogy of teaching basic technology in Junior Secondary Schools Port Harcourt metropolis.

**Table 5:** Z-test for mean ratings of Administrators and NCE (Tech.) teachers with respect to the pedagogy of teaching basic technology in Junior Secondary Schools Port Harcourt metropolis.

Variables	N	$\bar{X}$	SD	df	Z-cal	Z-table	Decision
Administrators	100	3.98	0.80	258	3.55	1.96	Significant
NCE (Tech) Teachers	160	3.73	0.73				

From the result of the Z-test in Table 5, the Z-calculated of 3.55 is greater than the Z-critical table of 1.96 and the null hypothesis is therefore rejected. It showed that at  $P \leq 0.05$ , there is significant difference in the mean ratings of Administrators and NCE (Tech.) teachers with respect to the pedagogy of teaching basic technology in Junior Secondary Schools Port Harcourt metropolis.

**Hypothesis ( $H_{03}$ ):** There is no significant difference in the mean ratings of Administrators and NCE (Tech.) Teachers with respect to the assessment of students learning of basic technology in Junior Secondary Schools Port Harcourt metropolis.

**Table 6:** Z-test for mean ratings of Administrators and NCE (Tech.) teachers with respect to the assessment of students learning of basic technology in Junior Secondary Schools Port Harcourt metropolis.

Variables	N	$\bar{X}$	SD	df	Z-cal	Z-table	Decision
Administrators	100	3.98	0.75	258	2.38	1.96	Significant
NCE (Tech) Teachers	160	4.39	0.73				

Table 6 above, showed the Z-test, the Z-test calculated is greater than the Z-critical table value of 1.96 and the null hypothesis is therefore rejected. It indicated that at  $P \leq 0.05$ , there is significant difference in the mean ratings of Administrators and NCE (Tech.) Teachers

with respect to the assessment of students learning of basic technology in Junior Secondary Schools Port Harcourt metropolis.

### **Findings of the Study**

The findings of the study in tables 1-6 revealed that:

- i. the perceived performance of basic technology teachers in imparting the cognitive knowledge was found to be High Extent.
- ii. the perceived performance of basic technology teachers in the pedagogy of teaching basic technology was to High extent.
- iii. the perceived performance of basic technology teachers in assessment of students learnings in the teaching of basic technology is to a High Extent.
- iv. significant difference was found between the mean ratings of Administrators and NCE (Tech.) Teacher basic technology in imparting cognitive component in teaching basic technology
- v. significant difference was found between the mean ratings of Administrators and NCE (Tech.) Teacher of basic technology teachers' in the pedagogy of teaching basic technology.
- vi. significant difference was found between the mean ratings of Administrators and NCE (Tech.) teachers on the perceived performance of basic technology teachers' in the assessment of students learning in Junior Secondary Schools Port Harcourt metropolis.

### **Discussion of Findings**

The teachers' professional tasks and effectiveness indicators/traits highlighted by Kabiru (2012) include understanding of educational goals, sound knowledge of subject matter and assessment of students learning. Table 1 showed the perceived rating of the respondents on items pertaining to basic technology teacher's performance in imparting the cognitive component of the basic technology curriculum. The result revealed a high extent performance in imparting cognitive context of curriculum. This finding was in agreement with the findings of Womack (2018) which found high subject matter knowledge as a determinant of high teaching performance. By interpretation therefore, teacher performance in imparting the principles, facts and ideas was found to be high extent, it can be inferred therefore that student's unimpressive performance cannot be attributed to the teacher's performance in imparting the cognitive component of the basic technology curriculum.

Table 2 showed the mean ratings of respondents on the pedagogical performance of basic technology teachers. All the items were rated high extent indicating High Extent pedagogical performance. This implies that teachers' cognitive performance alone cannot create the desired attitudinal change to influence the choice of vocational subjects by students moving from junior secondary school to senior secondary schools. Further more teachers disposition in selecting an appropriate teaching strategy can assist students

learning. Kolawole (2019), found that the learning achievement of students taught wood finishing processes using-video instruction was high during the presentation. Findings on the use of instructional materials by basic technology teachers showed in Table 2. Stephen and Constance, (2017) found that there is significant relationship between adequate utilization of instructional materials and effective implementation of migrant fishermen – children education program.

Table 3 showed the mean ratings of respondents on perceived performance of basic technology teachers in the assessment of students learning. It indicates a high performance of teachers in all the items statements. The correct and continuous assessment of the progress of students has often been described as very vital to the educational process. Teacher needs to be able to develop test items, so as to assess both the expected immediate behavioural change in students. These findings agree with the findings of Keynolds (2018) in which respondents rated teacher instructional task performance as very effective in assessment of students learning outcomes. This also agree with Kannapel and Clenens (2018), which found out 61% of respondents expressing satisfaction with continuous assessment practice in their schools.

### Conclusion

Based on the findings of the study, it can be concluded that the perceived performance of NCE (Tech.) teachers in disseminating the theoretical knowledge (facts, principles, concepts, and law) needed to sustain cognitive development of JSS students in basic technology is high extent. As such, teachers' cognitive performance cannot be blamed as reason for students' low performance in basis technology examination as revealed by NALABE. Teachers expressed high ability to blend content, method and students' characteristics in teaching basic technology. Also, teachers showed some strength in the assessment of students learning which is cumulative effect of their performances of the goal/objectives of teaching basic technology as its present level in the study area.

### Recommendations

Based on the findings of the study, it is recommended that:

1. Initial basic technology teacher education should incorporate ICT especially in the assessment of students and teaching methodology.
2. Government should use experts in technical education to organize training programme in form of workshops and seminars for basic technology teachers from time to time.
3. Government should liaise with teachers' institutes and organize professional teacher training workshops to update and acquaint practicing basic technology teachers in teaching pedagogy.

## References

- Abe, S.T. (2014). The Impact of Basic Technology on its Recipients in Lagos. A case Study of Selected Schools in Ikorodu Local Government Area of Lagos State. *Technology Education Journal*. (8)1, 62-64.
- Amadi, A.S. (2018). Relationship between Study Habits and Academic Achievement of Study Secondary School Students. *India Journal of Applied Research* 4(6), 143-146.
- Amen, K. (2017). Issues of Quality Assurance in LIS Higher Education in Pakistan. Paper Presented at the World Library and Information Congress. Durban. South Africa.
- Bottery, M. (2018). Uses and Abuses of Quality. The Need or Civic Version. *In strategic Leadership and Educational Improvement* 60-63. London: Saga Publications.
- Dialing-Hamond, L. (2016). Teacher and Students Achievement. A Review of State Policy Evidence. Education Policy Analysis Archive. 8 <http://epea.asu.edu/apaa/v8n1>.
- Ezeji, S. C.O.A. (2004). *An Evaluation of Relevance of Technical Education programme of Education Research*, 5(6), 10-15.
- Federal Republic of Nigeria (2013). *National Policy of Education* (6<sup>th</sup> Edition). Lagos: NERDC Press.
- Glatthorn, A.A. (2019). *Supervisory Leadership*. New York: Harper Collins.
- Goldhaber, D.D. & Brewer, D.T. (2019). Does Teacher Certificate Matters High Schools Teacher Certification Status and Student Achievement Educational Evaluation and Policy Analysis (22), 129-145. Downloaded 26 may, 2024.
- Kabiru, I. (2012). *Teacher Education for Modern Nigeria*. National Commission for Colleges of Education, PRS Department (NCCE), 147.
- Kannapel, D.I. & Clemens, S.K. (2018). *Inside the Black Box of high Performing High Poverty Schools*. Retrieved on-line May, 28<sup>th</sup>, 2024.
- Koleoso, A. (2012). *Planning an Effective Educational Programme for Nigerian schools*. In Educational Administration for Colleges of Education and Universities. Owerri: Tony Ben Publishers.
- Kolawole, S.V. (2019). *Pedagogy in Environmental Education*. Lagos: Macmillian Nigeria Publishers Limited.
- Mac Diarmid, G.W., Ball, D.L. & Anderson, C.W. (2016). Why staying one chapter Ahead doesn't really work. Subject Specific Pedagogy. In M. Reynolds (Ed). *The Knowledge base for beginning Teachers*, N.T. Pergamon.
- Lawrency, G.A. & Palmer, D.H. (2020). *Clever Teachers, Clever Science, Preparing Teachers for the Challenges of Teaching Science, Mathematics and Technology in the 21<sup>st</sup> Century*. Australia Commonwealth.
- Musa, A.B. & Migosi K.S. (2015). At Risk Students and Technology Education. *The Journal of Technology Education* 26(1), 49-57.
- Okeke, K.U. (2018). Assessment Challenges Facing Vocational Education in Nigeria School System. Paper Presented at Third National Conference of Association for Educational Assessment at Nicon Nuga Hilton Hotel. Abuja, September. 4-9<sup>th</sup>.
- Onyemachi, G. (2015). *Curriculum Development and Management in Vocational Technical Education*. Onitsha: Cape Publisher International Ltd.
- Ornstein, A.C. (2012). *Strategies for Effective Teaching*. New York: McGraw-Hill.
- Reynolds K.C. (2021). Strategic Influence of UBE on the Education of Migrant Farmers in Imo State. *The Nigeria UBE Journal* 1(2), 144-155.
- Rodger, W.B. & Susane, L.H. (2010). Advancing Technology Education. The Role of Professional Development. *The Technology Teacher*, 46(3), 36-41.
- Sarkee, D. & Scott, J.L. (2018). *Vocational Special Needs*. (2<sup>nd</sup> Edition). Alsip, Illinois: American Technical Publishers.

- Stephen, T.C. & Constance, L.S. (2017). Knowledge and Teaching, Foundation of the New Reform. *Harvard Educational Review*. 57, 1-22.
- Ukeje, C.O. (2018). The Education of Teachers for a New Social Order. *The Nigeria teacher Today*, 1(2), 4-12.
- Weglinsky, O.Z. (2010). An Appraisal of Instructional Materials used to Educate Migrant Fishermen's Children in Rivers State, Nigeria. *International Journal of Scientific Research in Education*, 1(1), 13-25.
- Womack, F.B. (2015). *What is National Assessment?* Ann Arbor, Michigan: National Assessment of Educational Programmes.
- Yalams, S.O. & Fatokun, O.A. (2017). The Impact of Subject Matter and Educational Coursework on Teaching Performance. *Journal of Teacher Education*. 44(1), 55-63.