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WORK PLACE PERFORMANCE OF UNIVERSITY TECHNOLOGY AND VOCATIONAL EDUCATION (TVET) STUDENT-TEACHERS: A TRACER STUDY

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Abstract: *The research was a tracer study on work place performance of University Technology Vocational Education (TVET) Student–Teachers. Four research questions guided the study. The study adopted survey design, and the population was 45 involving Principals, Vice principals, Deans of Studies and Heads of the Department of technical subjects in 9 secondary schools in Anambra State where Technology and Vocational Education Student – Teachers of Nnamdi Azikiwe University were posted for Teaching Practice during the 2018/2019 academic session. No sampling was done in the study because the population was small. The instrument for data collection was 40 items questionnaire developed by the researcher on a 5 point response scale. Descriptive statistics of mean and Standard Deviation were employed in data analysis. The findings revealed that University TVET Student-Teachers performed to a High Extent in lesson planning, lesson presentation, classroom management and evaluation of learning outcomes. Based on the findings it was recommended among others that Universities should be ensure that lecturers responsible for teaching educational measurement and evaluation course are kept abreast with the modern trend in skill evaluation.*

Key words: *Workplace; Performance; TVET; Tracer-Study; University.*

INTRODUCTION

Technology and vocational education is an educational programme designed to help the learners acquire and develop skills, knowledge and attributes for effective employment or progression in specific occupations. This type of education is given to individuals to enable them develop their creative and manipulative potentials for the benefit of humanity. Technology Vocational Education and Training (TVET) is an education that familiarizes its learners with practical knowledge related to a specific trade, occupation or vocation (Kukoyi,

2009). This demands that learners be adequately informed, prepared and equipped for the task ahead. In order to meet the manpower needs of the work place, the graduates have to possess the right attitude and abilities to do the work in line with the demands of the occupation. Onah and Okolo (2010) believed that the more informed young people are about the needed work, the more they are able to maintain themselves in an occupation which best meets their individual aptitude and interest. University is one of the several media for the actualization of TVET.

Technology and Vocational Education and Training (TVET) programme as obtained in the university has dual aims of training teachers of Technology/Vocational subjected and workers for different types of industries. Considering the dynamic nature of the society due to the innovations and globalization issues, Onah and Okolo (2010) opined that there is no automatic employment for Technology and Vocational Educational graduates in the schools hence they scout for and get employed in different positions in various firms. Chukwugbo and Okwuanaso (2014) had expressed fears that TVET graduates in the near future, may not fit properly into modern industrial establishments due to technological changes, consequently, Technology and Vocational Education Programmes has been undergoing revisions (Auta, 2017) leading to inculcation of new skills and competencies into the graduates.

Technology and Vocational Education courses as obtained in the universities are structured in a manner that there is a separation between Technology/Vocational courses and Education courses. These courses are expected to exposed graduates to 'applied' as opposed to 'academic', practical as opposed to theory and skill as opposed to knowledge to enable them perform effectively and efficiently in the workplace. Workplace performance of graduates to a large extent determines the functionality and viability of a school programme.

In Nnamdi Azikiwe University for instance, the department of Technology and Vocational Education has two major divisions - Business Education and Technical Education. Business Education have three options namely; Commerce and Cooperative, Accounting and Office Technology and Management while Technical Education have the following options three options: Building Technology, Woodwork technology, Electrical and Electronics Technology, Mechanical/Automobile Technology (Information Handbook of Standard Academic Programmes for Department of Vocational Education, NAU, Awka, 2015). The students choose the option they want to specialize in the course of their four years of study. The students are also mandated to go for industrial training to expose them to real life situations so as to become practically oriented before graduation. Resources are also available for students to practice and acquire skills necessary to their study and work upon graduation. It is believed that when students have completed their four years study in the University Technical and Vocational Education Department, they will perform efficiently in their workplace upon graduation.

In spite of several efforts by government through her different policies to make Nigeria educational system more functional, there are still growing concerns

among education stakeholders and industrialists that graduates from our educational institutions might lack adequate practical background and relevant job related skills for performers in industries (Ideh, 2013; Idris& Rajuddin, 2012). Employers of labour have continued to express their worry over the quality of the current graduate of TVET institutions in Nigeria partly due to their lack of relevant job skills for performance in industries (Oviawe, Uwameiye & Uddin, 2017). According to the Shittu, Yakubu and Wala (2017), this situation calls for the enhancement of technical and vocational skills training programmes that institutions provide across the country.

Ovaiwe and Uwameiye (2010) had earlier reported that TVE institutions lack the tools and equipment necessary for practical education. The title equipment workshops and laboratories are often obsolete, bearing little or no resemblance to the current technologies used by the contemporary age workplace. In most cases, insufficient training resources lead to students overcrowding during classes, with most of them only observing the teacher demonstrate and not having opportunity to get hand on practice. The effect of these problems when not addressed is that the country will in the near future be grappling with abundant of educated graduates but unskilled workforce. When put in a question form: what is the situation with University Technology and Vocational Education programme Student–Teachers in their respective places of Teaching practice?

Research Questions

What is the level of performance of University Technology and Vocational Education Student-Teachers relative to:

1. Lesson planning?
2. Lesson presentation?
3. Classroom management?
4. Evaluation of learning outcomes?

METHOD

The study adopted descriptive survey research design. This study was carried out in Anambra State. The population for the study is 45, this comprises of Principals, Vice Principal academics, Vice Principal administration and Deans of studies and Heads of the Department of Technical subjects in the 9 Public secondary schools in Anambra State where TVE Student-Teachers of Nnamdi Azikiwe University were posted for Teaching Practice during the 2018/2019 session. There was no Sampling, the entire population was studied.

The instrument for data collection was 40 items structured response questionnaire developed by the researcher in line with the research questions. The questionnaire contained two sections A and B sections. Section A comprises of information on personal data of the respondents while section B comprises of responses from the respondents to answer the research questions. The questionnaire items were formulated based on five point response scale type. The response modes was a five point response rating scale using real limits of numbers, thus; Very High

Extent (VH), High Extent (H), Moderately High Extent (MH), Low Extent (L) and Very Low Extent (VL). These response category were assigned numerical values of 4.50 - 5.00, 3.50 - 4.49, 2.50 - 3.49, 1.50 - 2.49 and 1.00 - 1.49 respectively. The respondents were required to indicate their level of agreement or disagreement with the items represented.

The questionnaire was validated by one lecturer of Measurement and Evaluation in the department of Educational Foundation and two lecturers in Technology and Vocational Education both in Nnamdi Azikiwe University, Awka. The reliability of the instrument was determined using Cronbach's Alpha Formula to measure the internal consistency of the instrument and indicate the degree of consistency. This method of reliability estimate was used because the items are polytomously scored. Consequently, data was generated by collation of administered questionnaire to 10 Principals, Vice Principals, Deans of Studies and Heads of Technical subjects in Public secondary schools in Enugu State which is outside the area of study. The reliability coefficient obtained was 0.77. The instrument is therefore considered reliable since the reliability coefficient is high enough.

The researcher administered the questionnaire personally to the forty-five Principals, Vice-principals and Deans of study in secondary schools where Technology and Vocational Education Student-Teachers of Nnamdi Azikiwe University were posted for Teaching practice. The copies of the questionnaire was collected after the completion, 42 copies were returned by the respondents, representing 93% rate of return and were used for data analysis.

The responses was organized in tables according to the research questions and mean score was used to analyze the data in accordance with the real limit of numbers presented below:

Response	**Real Limit of Numbers**
Very High Extent	(VH) = 4.50 - 5.00
High Extent	(H) = 3.50 - 4.49
Moderately High Extent	(MH) = 2.50 - 3.49
Low Extent	(L) = 1.50 - 2.49
Very Low Extent	(VL) = 1.00 - 1.49

RESULTS

Research Question One

What is the level of performance of Technology and Vocational Education Student-Teachers of Nnamdi Azikiwe University in lesson planning?

Table 1:
Showing result on the level of performance of Technology and Vocational Education Student-Teachers of Nnamdi Azikiwe University in lesson planning.

S/N	Lesson planning	$\bar{X}$	SD	Decision
1	Preparing well-detailed lesson plan.	4.88	0.35	Very High Extent
2	Setting specific measurable objectives.	4.54	0.48	Very High Extent
3	Putting the characteristics of the students in perspective.	3.69	1.14	High Extent
4	Anchoring/basing the lesson on a relevant entry behaviour	4.33	1.55	High Extent
5	Developing lesson plans that promote acquisition of practical skills.	4.00	1.23	High Extent
6	Developing lesson plans that promote acquisition of scientific attitudes.	3.14	0.92	Moderate High Extent
7	Selecting appropriate instructional materials.	4.23	1.43	High Extent
	Cluster Mean	4.12		High Extent

Based on the result in table 1, the cluster means score of 4.12 shows that on the whole, the principals, vice-principals and deans of studies rated the performance of Technology and Vocational Education Student-Teachers of Nnamdi Azikiwe University in lesson planning to a high extent. The standard deviation scores were within the same range showing that the respondents were not wide apart in their ratings.

Research Question Two

What is the level of performance of Technology and Vocational Education Student-Teachers of Nnamdi Azikiwe University in lesson presentation?

Table 2:
Showing result on the level of performance of Technology and Vocational Education Student-Teachers of Nnamdi Azikiwe University in lesson presentation.

S/N	Lesson presentation	$\bar{X}$	SD	Decision
8	Considering the student's characteristics during lesson presentation.	4.23	1.46	High Extent
9	Encouraging students' participation during lesson presentation.	4.66	0.52	Very High Extent
10	Being well-skilled in arousing and sustaining students interest in the lesson.	4.16	0.67	High Extent
11	Facilitating student-to-student interaction.	3.28	1.19	Moderate High Extent
12	Facilitating student-teacher interaction.	4.19	1.56	High Extent
13	Giving students assignments that are relevant to the objectives of the lesson.	4.54	0.48	Very High Extent
14	Giving excellent feedback to students when asked questions.	4.42	0.48	High Extent
15	Displaying enough self-confidence during lesson presentation.	4.64	0.32	Very High Extent

16	Demonstrating mastery of knowledge of subject matter.	4.07	1.72	High Extent
17	Making proper use of the board while teaching.	4.38	0.39	High Extent
18	Communicating the subject matter clearly before the students.	3.90	1.63	High Extent
19	Reviewing the lesson after completion	3.90	1.09	High Extent
20	Having good understanding of individual differences among the students.	3.38	1.48	Moderate High Extent
21	Effective management of chalkboard.	3.69	0.87	High Extent
22	Explaining the lesson clearly and in ways to understand, offers alternative explanations or additional examples, and clears up confusion.	4.11	0.65	High Extent
23	Using examples from daily life situations while teaching.	3.45	0.92	Moderate High Extent
	Cluster Mean	4.06		High Extent

Based on the result in Table 2, the cluster means score of 4.06 shows that on the whole, the principals, vice-principals and deans of studies rated the performance of Technology and Vocational Education Student-Teachers of Nnamdi Azikiwe University in lesson presentation to a high extent. The standard deviation scores were within the same range showing that the respondents were not wide apart in their ratings.

Research Question Three

How efficient are Technology and Vocational Education Student-Teachers of Nnamdi Azikiwe University in classroom management?

Table 3:
Showing result on the level of efficiency of Technology and Vocational Education Student-Teachers of Nnamdi Azikiwe University in classroom management.

S/N	Classroom management	X	SD	Decision
24	Making classroom rules.	3.19	1.24	Moderate High Extent
25	Exhibiting clearly support safe and respectful behaviour.	3.95	0.68	High Extent
26	Paying attention to social dynamics of their classroom.	2.95	0.72	Moderate High Extent
27	Nurturing positive relationships with their students.	4.00	1.56	High Extent
28	Being sensitive to individual differences in preferred learning styles by varying the rate of the instruction given.	3.83	0.39	High Extent
29	Being sensitive to individual differences in preferred learning styles by varying the amount of the instruction given.	3.28	0.64	Moderate High Extent
30	Creating safe environment for students' participation.	3.73	1.57	High Extent
31	Making learning more fun and enjoyable.	4.23	1.78	High Extent
32	Praising students' good behavior/performance.	4.33	0.43	High Extent
33	Enforcing penalties for poor behavior.	3.88	0.66	High Extent
34	Ensuring cleanliness of the classroom environment.	3.78	1.46	High Extent
	Cluster Mean	3.74		High Extent

Based on the result in table 3, the cluster means score of 3.74 shows that on the whole, the principals, vice-principals and deans of studies rated the efficiency of Technology and Vocational Education Student-Teachers of Nnamdi Azikiwe University in classroom management to a high extent. The standard deviation scores were within the same range showing that the respondents were not wide apart in their ratings.

Research Question Four

What is the level of performance of Technology and Vocational Education Student-Teachers of Nnamdi Azikiwe University in evaluation of learning outcomes?

Table 4:

Showing result on the level of performance of Technology and Vocational Education Student-Teachers of Nnamdi Azikiwe University in evaluation of learning outcomes.

S/N	Evaluation	$\bar{X}$	SD	Decision
35	Giving students' standard question that prepared them for external examinations.	4.47	0.56	High Extent
36	Correct use of marking scheme.	4.11	0.88	High Extent
37	Ensuring that the questions set are relevant to specific objective of the lesson.	4.59	1.81	Very High Extent
38	Communicating students' performance to their parents.	3.23	0.69	Moderate High Extent
39	Administering various types of evaluation to motivate the students to learn.	3.30	1.72	Moderate High Extent
40	Considering the three domains of learning in their assessment of learning outcomes.	4.11	0.63	High Extent
	Cluster Mean	3.86		High Extent

Based on the result in table 4, the cluster means score of 3.86 shows that on the whole, the principals, vice-principals and deans of studies rated the performance of Technology and Vocational Education Student-Teachers of Nnamdi Azikiwe University in evaluation of learning outcomes to a high extent. The standard deviation scores were within the same range showing that the respondents were not wide apart in their ratings.

DISCUSSION OF FINDINGS

From the research findings, it is seen that the school managers (principals, vice principals, deans of studies, and heads of department of technical subjects) rated the Nnamdi Azikiwe University Technology and Vocational Education Student-Teachers performance in lesson planning as adequate. Data in Table 1 revealed that NAU TVE Student-Teachers in this aspect. The findings were in agreement with Okafor's (2011) assertion that TVE is concerned with the production of graduates who can plan program of courses and learning experiences

that begins with exploration of career options, supports basic academic and life skills, to enable achievement of high academic standards and prepare students for industry-defined work. Furthermore, Hattie (2009) upheld that lesson planning is the indispensable foundation on which to build effective instruction. More so, the findings confirm the views Seyi (2014) that TVE teachers must have adequate lesson planning knowledge to sequence the lesson in an engaging and meaningful manner for effective delivery in TVE classroom, laboratory or workshop.

Also, the findings of this study revealed that school managers in public secondary schools where NAU TVE student-teachers were deployed for Teaching Practice considered the performance of NAU TVE Student-Teachers in lesson presentation to be adequate, see tale 2. The findings confirms Idialu (2013) views that the TVE teacher communicates in a way that is both comprehensible and interesting to the students, else their learning will be greatly reduced. More so, the findings agree with the assertion of Akombi (2015) that one of the most important aspects of lesson presentation is shaping both content and style to fit the students. The findings however disagreed with the views of Oviawe, Uwameiye and Uddin (2017) that the products of Nigerian TVE institutions lack practical skills, attitudes, understanding, knowledge and competence required to achieve the goal on marketable labour force in the country.

The study also revealed that the school managers rated the efficiency of NAU TVE Student-Teachers in classroom management as adequate. Data in Table 3 indicated that NAU TVE student-teachers were adequate in managing their classes well. This agrees with the statement made by Oliver, Wehby and Reschly (2011) that classroom management plays a crucial role in creating an environment conducive to learning. In achieving the instructional objectives of the lesson, classroom management is an essential driver that encourages and supports learning. Hattie (2009) revealed that, classroom management and effective instruction are interdependent; you cannot have one without the other. Hattie maintained that the best planned lesson is worthless if interesting delivery procedures, along with good classroom management techniques, are not in evidence.

The study indicated that the school managers rated NAU TVE student-teachers adequate in evaluation of learning outcomes. Data in table 4 showed that NAU TVE student-teachers were efficient in the aspect of evaluating learning outcomes. This finding agrees with the view of Hills (2008) that evaluation of learning outcomes improve students' learning and help teachers in teaching. Gillis and Griffin (2008) maintained that evaluations integral to teaching. Similarly, Mukhtar and Ahmad (2014) held the view that this evaluation is indeed important to TVE programme which supports the national economic transformation agenda in churning out skilled and trained manpower.

CONCLUSION

In conclusion, technology and vocational education in Nigeria is the pivot of any national development. Technology and vocational education is a means of

providing for the workforce needed in both industriesand institutions. This is being done with the hope of improving the standard of living of the Nigerian citizen. It is when the individual in the micro setting are self-reliant that the macro economy becomes buoyant and stable. It will be an impossible task to plan and develop any economy in which technology and vocational education is not developed. With these obvious necessities, the need to invest in TVE by the Nigerian governments (federal, state and local) cannot be over-emphasized. Hence in the national transformation agenda, no progress will be made without adequate and enabling environment created for a paradigm shift from the transitional emphasis on rhetoric knowledge to the more modern and holistic TVE delivery system. Technology and vocational education should be treated as an integral part of overall educational planning.

RECOMMENDATIONS

Based on the findings of this study, the following recommendations were made:

1. Universities should ensure that more pedapogical courses aredeveloped for the teacher training programme.
2. Universities should ensure that Lecturers responsible for teaching educational measurement and evaluation courses are kept abreast with the modern trend in skill evaluation.
3. School managers should ensure that Technical Student- Teachers are assigned to teach only subjects such as Basic Technology, Technical drawing and their field of specialization.
4. Adequate monitoring and supervision of Teaching Practice programme should be intensified.

REFERENCES

Akombi, I. (2015). *Strategies for ensuring quality in the teaching of vocational education in secondary schools.* Journal of qualitative education.*9* (1), 123 – 131.

Chukwugbo, G.C. & Okwuanaso, S.I. (2014). Performance of business education graduates in administrative functions in registered business establishments in Anambra State. *NAU Journal of technology and vocational education. 1* (1), 86 – 91.

Hattie, J. (2009). *Delivering a Lesson: Tools for teaching.* San fransico: Jossey-Bass Publishers.

Healy, A; Perkamnn, M; Goddard, J; & Kempton, L.(2014). *Measuring the impact of Unviersity – business cooperation.* Luxembourg: European Union.

Hill, M. (2008). *Using classroom management for effective teaching and learning.*North Shore new zeal and Cengage learning Sydney Gillis, S., Griffin, P. (2008). *Competency assessment:* David Barlow publishing.

Ideh, V. (2013). Students' Perception of strategies for improving delivery of industrial work experience in Delta State University, Abraka. *Nigeria vocational association Journal.18* (2). 237 – 242.

Idialu, E.E. (2013). Quality assurance in the teaching and examination of vocational and technical education in Nigeria.*College student Journal. 53* (3), 149 – 156.

Idris, A. &Rajuddin, M.R (2012). The Influence of teaching approaches among technical and vocational education teachers towards acquisition of technical skills in Kano State – Nigeria. *Journal of education and practice. 3* (16), 160 – 165.

Information Handbook of standard academic programmes for department of vocational education Nnamdi Azikiwe University, Awka (2015).

Mukhtar, M.I., Ahmad, J.(2014). Assessment for learning: practice in TVET *Procedia – social and behavioral sciences. 11*(3), 119 – 126.

Okafor, E.C. (2011). The role of vocational and technical education in manpower development and job creation Nigeria. *Journal of research and development. 2* (1), 152 – 159.

Oliver, R.M., Wehby, J.H, & Reschly, D.J (2011).*Teacher classroom management practices: effects on disruptive or aggressive student behaviour. Evanston,* IL: Society for research on educational effectiveness.

Onah, B.I. & Okolo, F. (2010).Strategies for enhancing the accessibility and use of information and communication technology in the colleges of education in Enugu State. *Nigerian vocational Journal. 14* (2), 104 – 113.

Oviawe, J.I. & Uwameiye, R. (2010). Availability of human and material resources for teaching block laying and concrete works in technical colleges in Edo State. *Ebonyi technology and vocational education Journal.1* (1), 37 – 47.

Oviawe, J.I; Umwameiye . R. & Uddin, P.S.O (2017). Bridging skill gap to meet technical vocational education and training school work place collaboration in the 21st century. *international Journal of vocational education and training research.3* (3), 7 – 14.

Seyi, D. (2014). An Overview of vocational and technical education in Nigeria under secondary school education system.*International Journal of technology enhancements and emerging engineering research. 2* (6), 119 – 122.

Shittu, A.N., Yakubu, Y. & Wala. I.Z. (2017) An evaluation of the challenges of technical and vocational skills acquired by graduates of the Federal Polytechnic Mubi in a distressed economy, for poverty alleviation of Nigeria Youths. *International Journal of entrepreneurial development, education and science research.4* (1), 58 – 73.