

**Assesment of Tasks and Procedures Necessary for Students  
Practical Work in Block/Brick Laying and Concreting in Technical Colleges in Niger State**

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**Abstract**

*This study was designed to assess tasks and procedures for practical work in Brick/Blocklaying and Concreting in Technical Colleges in Niger State. Three research questions were formulated to guide the study. One null hypothesis was formulated and tested at the probability of 0.05 level of significance. Thirty nine structured questionnaire items were developed and used for the study while three experts were engaged to face-validate the instrument. The instrument was pilot tested on 15 students and reliability coefficient of the entire instrument was 0.87. Research and design was adopted, the respondents for the study was 69 made up of 49 Building Technology Teachers, and 20 Registered Builders. The major findings of the study include among others that, some tasks has been identified appropriate for inclusion in the instrument for assessing practical work in Brick/Blocklaying and Concreting in Technical Colleges in Niger State. It was recommended that Brick/Blocklaying and Concreting teachers should be acquainted with the developed instrument to enhance uniform standard in assessing student's practical work.*

**Keywords:** Tasks, Procedures, Assessment, Practical work, Block/Bricklaying, Concreting

**Introduction**

Among the institutions that provide technical education in Nigeria are the technical colleges. Technical colleges impart necessary skills that lead to the production of craftsmen and technicians who are enterprising and self reliant (FRN, 2013). Programmes offered in technical colleges are skill oriented and performance-based (Odu, 2019). These programmes allow for effective training and assessment of craftsmen in a wide range of trade subjects that help the students to achieve various instructional objectives in the different domains of learning (Igbo, 2017).

The national curriculum for technical colleges centres around the psychomotor domain with relevant emphasis on cognitive and effective domain (FRN, 2013; NBTE, 2013). By implication, much attention is focused on psychomotor or practical component of studies in technical colleges but this is done without overlooking the relevant emphasis on critical areas of cognitive and effective components. The psychomotor component requires that the appropriate materials that are necessary for effective training of the craftsman in his/her chosen trade must be available. The availability and effective utilization of materials would help to achieve the skills of technical education as out lined in the national policy on education (N.P.E, 2013), therefore includes: To provide trained manpower in applied science, technology and business particularly at the craft, advanced craft and technical levels; and to give training and impart the necessary skills to individual, who shall be self-reliant economically. Another goal of Technical and vocational Education in Nigeria is the production of skilled, self reliant and enterprising craftsmen and technicians who can apply their technical knowledge and vocational skills for solving industrial,

and economic problems of the nation (FRN, 2013). Part of the effort for achieving this objective is the implementation of National Technical certificate (N.T.C) and Advanced Technical Certificate (A.N.T.C) programmes in Technical colleges. The N.T.C and A.N.T.C programmes are aimed at producing technical and vocational craftsmen who can aspire to higher level of education in achieving professionalism in various technical programmes among which is Brick/Block laying and concreting.

Brick/Block laying and concreting like other courses are carried out in classroom and workshop learning and training environments and each complement the other. Workshop environment in college setting is the introduction of industry in learning situation, designed to equip students for work in their chosen occupation as demanded by the labour market (N.B.T.E; 2020) Brick/Blocklaying and concreting at Technical college level is designed to provide the trainee with the essential knowledge and skill that will enable him perform competently in all aspects of Brick-work in the construction industry. On completion of the programme, the trainee should be able to manipulate various tools and equipment in the brick/block laying and concreting trade. Manipulative skills are required in brick/ block laying and concreting. Skills are those aspects of technical and vocational education which involve hands-on the-job experience by the students.

The National Policy on Education (2013) further outlined general education, theory and related courses, workshop practical, and industrial training/production works as the four components, which the curriculum of each technical training should consist of Brick/Blocklaying and concreting involve knowledge and training in woodwork and joinery, painting and decoration, building drawing and construction among others (FRN, 2013). The importance of shelter and need for a conducive environment for domestic and industrial works has necessitated the demand for quality building. The development of an appropriate instrument for assessing the performance of students in brick / block laying and concreting will help to improve the quality of products.

Identification of tasks is the process of identifying the major learning activities or operation for carrying a job. (Ede, 2020) identification of tasks could be used for improving skills training in complex tasks. While task analysis is the process of breaking down complex tasks for easy learning. The major types of tasks analysis that could be used to improve learning are cognitive task analysis and traditional task analysis. Cognitive task analysis and extension of behavioral task analysis task analysis to yield information on mental process necessary for task performance. While traditional task analysis on the other hand is the process of breaking down large and complex task in the behaviours that support performance of a given job. Yalama (2000) viewed the process of assessing student manipulative skills as which should comprise of assessing student skills, to be carried with a stated degree of accuracy in performing tasks. Due for the potentials of cognitive task analysis (CTA) and Traditional task analysis (TTA) incorporated in to an instructional guide may be used to enhance students' performance in brick/ blocking and concreting practical work in Technical colleges.

Procedures: is the accepted and correct way of doing something. In relation to workshop procedures in building construction, procedure can be seen as the correct and accepted ways of deriving set objectives of the programmes from planned and systematic follow – up of activities designed for the purpose. Procedures in workshop activities are process – based, (Nwachukwu, 2016). Process in this sense refers to series of actions, activities or events which have a particular

result. Procedures as noted, workshop environment in school setting is the introduction of industry in learning situation as demanded by the solo economic needs of the people (Ezeji, 2014) school workshop brings about technology of industry in educational curriculum in which students are exposed to practical learning situation for optimum utilization of potentials abilities, creative imagination and aptitude in using available materials and tools for production works (Olson, 2012, Nwachukwu, 2016). Technology of industry has to do with methods, processes and procedures in technical schools should be same as the procedures of industry (Olson, 2012) in the same vein, workshop procedure in building construction programmes should be same as procedures in building industry, and should reflect workshop procedures in technical education programmes.

Assessment in any educational programme determines learning outcomes in terms of knowledge, skills attitudes, ability and intelligence acquired in the course of study. In education, decisions about staff and students promotion are based on outcome of assessment. Assessment is the process by which the success or failure of students, teachers or school heads performance is obtained. Kenneth and Keith (2012) viewed assessment as the process of examining as carefully, thoroughly and objectively as possible an individual, and group of products or programmes in order to ascertain strength and weakness. From the foregoing, therefore, assessment can be seen as the systematic process of judging the worth desirability, effectiveness or adequacy of something, according to a given criteria. Okorie and Ezeji (2015) emphasised that in educational programme, some unique methods of assessing practical activities are required when students are engaged in a practical task which have to do with repairs of whatever nature, be it individual or in groups. The methods of assessment in manipulative subjects like brick/block laying and concreting require an assessment which employs the use of rating scales or checklist on students as they physically carry out some given tasks. Mohammed (2018) and Makienko (2015) also asserted that a special method for assessment of manipulative skills is necessary because in performing any operation or task such as in brick/block laying, certain techniques and attributes to be noticeable in students which cannot be guessed at or judged intuitively must be critically considered when assessing students, performance. Assessment should be based on a laid down criteria regarding the quality or characteristics of the finished products, or final tasks (Okoro, 2019). It is pertinent to note that a good test must be valid and reliable. Validity implies that the test measures correctly what it suppose to measure while reliability means that the test measures consistently at repeated administrations, what it is designed to measure. Hoover (2015) stated that test validity is the extent to which the inferences, conclusions and decisions made on the basis of test scores are appropriate and meaningful. According to him, if a test is not valid there is no point in discussing reliability because test validity is required before reliability can be discussed in any meaningful way.

A reliable score is dependent upon standard method of assessment instrument, particularly in the practical work. Hence the need to reward every step or procedure is paramount. According to the National Board for Technical Education (N.B.T.E) (2013) Brick/Block laying and concreting graduates from technical colleges in Niger state and other states in Nigeria are expected to, upon completion of the course, have acquired practical skills to secure paid employment or set up their own and become self employed and be able to employ others.

National Business and Technical Examination Board (NABTEB) (2014) chief examiners report revealed that candidates' performance in Brick/Block laying and concreting practical examination was too low. This is affirmed by the preliminary study carried out by the researcher in Niger state.

Similarly, NABTEB (2012) marking scheme on rating skills in Brick/Blocklaying and concreting practical examination clearly shows that some tasks are not included in the scheme which could affect student performance. This is in line with Goton (2018) who stated that lack of problem identification, practical guide or instrument for teaching and assessing students work, diagnosis, evaluation and decision making had led to the decline of educational standard in technical colleges in Nigeria. Although Increased emphasis has been placed on skill acquisition in both secondary and vocational schools in Nigeria to equip students with useful skills and to improve their employability opportunities, the practical tasks carried out need to be assessed so as to generate and sustain confidence as well as to maintain standard (Okoro, 2019). Garba (2019) had noted that some building technology teachers assess students' practical project performance by taking cursory at the finished works and assigning grades they like. This must be mostly due to lack of valid instrument for such assessment. The study was, therefore designed to identify tasks and procedures necessary for assessing students in practical work in Brick/Block laying and concreting in Technical Colleges in Niger state.

### **Purpose of the Study**

The major purpose of this study was to develop and validate an instrument for assessing practical work in Brick/Blocklaying and Concreting in Technical Colleges in Niger State. Specifically the study was to:

1. Determine tasks appropriate for inclusion in the instrument for assessing practical work in Brick/Blocking and Concreting.
2. Determine procedures for developing assessment instrument in Brick/Blocklaying and Concreting.
3. Determine facilities required for assessing student's practical work in Brick/Blocklaying and Concreting.

### **Research Questions**

The following research questions guided the study.

1. What are the appropriate tasks for inclusion in the instrument for assessing practical work in Brick/Blocking and Concreting in technical collages in Niger State?
2. What are procedures for developing an assessment instrument in Brick/Blocklaying and Concreting in technical collages in Niger State?
3. What are the facilities required for assessing students practical work in Brick/Blocklaying and Concreting in technical collages in Niger State?

### **Hypotheses**

The following hypotheses were formulated and tested for the study at 0.05 level of significance

**H0<sub>1</sub>:** There is no significant difference in the mean responses of Brick/Blocklaying and Concreting Teacher and Registered builders on task appropriate for inclusion in the assessment instrument.

**H0<sub>2</sub>:** There is no significant difference in the mean responses of Brick/Blocklaying and Concreting Teachers and Registered builders on procedures for developing assessment instrument in Brick/Blocklaying and Concreting in technical collages in Niger State

## **Methodology**

The descriptive survey research design was used for the study. This design was adopted for this study because it enables the researcher to elicit information from the entire population. This study was carried out in Niger State in order to develop an instrument for assessing practical work in Brick/Blocklaying and Concreting in Technical Colleges in the state based on the report from Niger State Ministry of Education on poor performance of students in National Business and Technical Examination (NABTEB) practical examination in Brick/Blocklaying and Concreting in 2020.

The target population for this study is 69 which comprised 49 Brick/Blocklaying and Concreting teachers of all the Technical Colleges in the state Science and Technical School Board, and 20 Registered Builders from Ministry of Housing and Environment respectively. The teachers and registered builders were chosen because they are involved in practical in brick/ blocklaying and concreting. No sample was taken because the population was of a manageable size. The preliminary instrument that was used for data collection is structured questionnaire consisting of 48 items developed by the researcher through extensive literature review based on the research questions. A 5 point rating scale was used for Section B, C, D, and E with response options as Very Appropriate (VP), Appropriate (A), Fairly Appropriate (FD), Disagreed (D), strongly Disagree (SD). The weighted value assigned to response options are 5, 4, 3, 2, and 1 respectively. The preliminary survey instrument for this study was validated by two experts from Department of Industrial and Technology Education, Federal University of Technology Minna and one registered builder, in the ministry of housing and environment Minna. Therefore, 48 items were found suitable for the study and produced in the final drafting of the instrument. To establish the reliability of the instrument, the validated instrument was trial tested on 15 students at Federal Science and Technical College Orozo Abuja, with the same demography of the study area. The data obtained from the trial testing was analysed using Cronbach Alpha reliability formula to establish internal consistency of the instrument for the study. The reliability coefficient obtained was 0.87. The instrument was administered by the researcher with the help of one research assistance from each Technical College in Niger State. The data collected for the study was analysed using mean and standard deviation to answer the research questions while, t-test statistic was used to test the hypothesis at 0.05 level of significance. For selecting the task appropriate for inclusion in the instrument a mean cut up of 3.50 was chosen. The resulting mean scores was interpreted relatively to the concept of the real lower and upper limit of numbers 1-5 as used on the rating scale adopted for the study. Therefore, any task with mean of 3.50 and above is appropriate, and any task with mean score of 3.49 or less is not appropriate.

## **Results and Discussion**

### **Research Question 1**

What are the tasks appropriate for inclusion in the instrument for assessing students In determining the tasks appropriate for inclusion in the instrument, 20 items were provided to the respondents in order to express their opinions the responses to the research question, are presented in Table 1.

**Table 1: Task Appropriate for Inclusion in the Instrument for Assessing students' Practical work in Brick/Blocklaying and Concreting**

S/N		Mean	S.D	Remarks
1	Ability to read and interpret drawings	4.54	0.61	Appropriate
2	Ability to analyse the building plan work	4.67	0.68	Appropriate
3	Ability to identify and select tools for a given task	4.54	0.74	Appropriate
4	Ability to identify and select equipment for the given task	4.72	0.54	Appropriate
5	Ability to use appropriately the identified tools and equipments	4.72	0.54	Appropriate
6	Ability to prepare ground for a given task	4.57	0.65	Appropriate
7	Ability to select suitable materials for the given task	4.49	0.80	Appropriate
8	Ability to use correct specifications for given task	4.59	0.63	Appropriate
9	Ability to measure accurately the parameters of a given task	4.59	0.63	Appropriate
10	Ability to apply technical information to a given task	4.70	0.55	Appropriate
11	Ability to record properly all dimensional specifications of a given task	4.64	0.62	Appropriate
12	Ability to construct the given task properly without errors	4.48	0.70	Appropriate
13	Ability to take appropriate care of tools during and after work	4.57	0.70	Appropriate
14	Ability to follow the various work stages correctly	4.61	0.62	Appropriate
15	Ability to follow operational sequences in performing a given task	4.65	0.64	Appropriate
16	Observation of relevant precaution in performing a task	4.51	0.68	Appropriate
17	Ability to complete all the work stage as on a given task	4.55	0.70	Appropriate
18	Ability to answer oral questions as it relates to a task completion	4.50	0.76	Appropriate
19	Ability to provide level surface for given task	4.62	0.60	Appropriate
20	Ability to have adequate compartment during work	4.54	0.76	Appropriate

Analysis of mean responses of the two groups of respondents from Table 1 reveals that all the items are agreed with mean ranging from 4.48-4.72 This shows that the task are appropriate for inclusion in the instrument for assessing students practical work in brick/ blocklaying and concreting in all technical colleges.

### **Research Question 2**

What are the procedures in the development of assessment instrument in Brick/Blocklaying and Concreting?

In answering this research question 9 items were provided to the respondent in other express their opinions.

**Table 2**

Mean Responses of the Teachers and the Registered Builders on the Procedures in the Development of Assessment Instrument

S/N	Procedures for Developing an Assessment Instrument in BBC	Mean	S.D	Remarks
1	By reviewing existing instrument	4.58	0.67	Appropriate
2	By determining the domains be included and the items in the instrument	4.77	0.46	Appropriate
3	By determining the response categories to be included in each domain	4.60	0.62	Appropriate
4	By establishing the reliability and validity of the instrument	4.54	0.80	Appropriate
5	By developing training materials to accompany the assessment instrument	2.80	1.52	Not Appropriate
6	By clearly defining the aim of the study in the assessment instrument	4.61	0.60	Appropriate
7	By listing out all the attributes or characteristics that need to be observed in the instrument	4.55	0.65	Appropriate
8	By deciding on the recording system to be used in assessment instrument	4.48	0.76	Appropriate
9	By constructing the requirement model for recording Observation	4.74	0.56	Appropriate

The analysis of the data presented in Table 3 revealed that the respondents on 8 out of the 9 items on the procedures in the development of assessment instrument with the mean ranging from 2.80-4.77 but item 5 was rated disagreed. This signifies that the assessment instrument possess all 8 characteristics outlined in the table but the item relating to developing training materials to accompany the assessment instrument was disagreed.

### **Research question 3**

What are the facilities required in carrying out practical work in Brick/ Blocklaying and Concreting?

In answering this research question, 10 items were provided to the respondent in other to express their opinions.

**Table 3**

Mean Responses of the Teachers and the Registered Builders on the facilities required in Carrying out Practical Work in Brick/ Blocklaying and Concreting.

S/N	Facilities for Assessing Student Practical Work in BBC	Mean	S.D	Remarks
1	Brick towel and steel square are necessary in carrying out practical exercise	4.63	0.57	Appropriate
2	Plumb rule, spirit level, and guage rule are required in carrying out practical exercise	4.60	0.60	Appropriate
3	Jointing board and straight edge are required	4.57	0.69	Appropriate
4	Corner block and triangle plate are required in carrying out practical exercise	4.58	0.65	Appropriate
5	Club hammer and block case are required in carrying out practical exercise	4.65	0.61	Appropriate
6	Pointing trowel, wooden hork and wire brush are required in carrying out practical exercise	4.48	0.71	Appropriate

The analyses of the data presented in Table 4 revealed that the respondents on 6 items on the facilities required in assessing students' practical work with appropriate mean ranging from 4.45-4.67. This signifies that all the facilities listed are required.

**Hypotheses**

H0<sub>1</sub> There is no significant difference between the responses of teachers and registered Builders' with respect to the tasks appropriate for inclusion in the instrument for assessing students practical work.

**Table 4**

t-test Analysis of the Responses of Teachers and Registered Builders on the Tasks Appropriate for Inclusion in the Instrument for Assessing Students' Practical work in BBC

S/N	Items	Teachers		Registered builders		t-cal	Sig.(2 tailed)	Remarks
		N <sub>1</sub> =49 Mean <sub>1</sub>	S.D <sub>1</sub>	N <sub>2</sub> =20 Mean <sub>2</sub>	S.D <sub>2</sub>			
1	Ability to read and interpret drawings	4.53	0.61	4.55	-.119	0.60	.905	NS
2	Ability to analyse the building plan work	4.71	0.57	4.55	0.89	.911	.366	NS
3	Ability to identify and select tools for a given task	4.43	0.79	4.80	0.52	-1.93	-.058	NS
4	Ability to identify and select equipment for the given task	4.71	0.58	4.75	0.44	-.248	.805	NS

8<sup>th</sup> International Conference of School of Science and Technology Education (SSTE)

5	Ability to use appropriately the identified tools and Equipments	4.61	0.70	4.35	0.87	1.309	.195	NS
6	Ability to prepare ground for a given task	4.55	0.65	4.60	0.68	-.281	.780	NS
7	Ability to select suitable materials for the given task	4.61	0.63	4.65	0.49	-.237	.814	NS
8	Ability to use correct specifications for given task	4.61	0.70	4.35	0.87	1.309	.195	NS
9	Ability to measure accurately the parameters of a given task	4.61	0.63	4.65	0.49	-.237	.814	NS
10	Ability to apply technical information to a given task	4.61	0.70	4.35	0.87	1.309	.195	NS
11	Ability to record properly all dimensional specifications of a given task	4.53	0.68	4.90	0.31	-2.326	.023	S
12	Ability to construct the given task properly without errors	4.61	0.63	4.65	0.49	-.237	.814	NS
13	Ability to take appropriate care of tools during and after work	4.61	0.70	4.35	0.87	1.309	.195	NS
14	Ability to follow the various work stages correctly							
15	Ability to follow operational sequences in performing a given task	4.67	0.66	4.60	0.60	.432	.667	NS
16	Observation of relevant precaution in performing a task	4.45	0.71	4.65	0.59	-1.120	.267	NS
17	Ability to complete all the work stage as on a given task	4.61	0.64	4.40	0.82	1.150	.254	NS
18	Ability to answer oral questions as it relates to a task completion	4.39	0.81	4.80	0.52	-2.095	.040	S

19	Ability to provide level surface for given task	4.61	0.63	4.65	0.49	-.237	.814	NS
20	Ability to have adequate compartment during work	4.61	0.70	4.35	0.87	1.309	.195	NS

NS= Not Significance

Data presented in Table 5 revealed that the t- calculated values for twenty items were less than the t- table values. T. Calculated values ranged from 0.40 to 0.905 which less than t. Table values.

H0<sub>2</sub> there is no significant difference between the responses of teachers and registered builders with respect to the procedures in developing assessment instrument.

**Table 5**

t-test Analysis of the Responses of Teachers and Registered Builders on the Procedures for Developing Assessment Instrument in BBC

S/N	Items	Teachers		Registered builders		t-cal	Sig.(2 tailed)	Remarks
		Mean <sub>1</sub>	S.D <sub>1</sub>	Mean <sub>2</sub>	S.D <sub>2</sub>			
		N <sub>1</sub> =49		N <sub>2</sub> =20				
1	By reviewing existing instrument	4.73	0.69	4.65	- .119	0.64	.905	NS
2	By determining the domains o be included and the items inthe instrument	4.70	0.87	4.56	0.89	.917	.366	NS
3	By determining the response categories to be included in each domain	4.73	0.70	4.84	0.62	-1.83	-.058	NS
4	By establishing the reliability and validity of the instrument	4.51	0.68	4.85	0.46	-.248	.805	NS
5	By developing training materials to accompany the assessment instrument	4.60	0.70	4.33	0.87	1.309	.195	NS
6	By clearly defining the aim of the study in the assessment instrument	4.56	0.65	4.60	0.78	-.281	.780	NS

7	By listing out all the attributes or characteristics that need to be observed in the instrument	4.61	0.53	4.65	0.48	-.237	.814	NS
8	By deciding on the recording system to be used in assessment instrument	4.61	0.70	4.35	0.89	1.389	.195	NS
9	By constructing the requirement model for recording Observation	4.61	0.63	4.65	0.49	-.237	.814	NS

Data presented in Table 5 revealed that the t- calculated value for nine items were less than the t-table values. T-calculated values ranged from 0.104 to 0.715 which were less than t. Table value. Hence there was no significant difference

### **Discussion of Findings**

The finding of this study revealed that tasks identified, are appropriate for inclusion in the instrument for assessing practical work in Brick/Blocklaying and concreting for better performance. This finding was in line with the views of Yalams (2000) who observed that in combining process and product evaluations, certain attributes of the learners such as ability to analyse the plan work, the skills and procedures in the use of care of tools and equipment, ability to construct the given task properly without errors among others could be easily and systematically observed, objectively and comprehensively assessed. In support of the above, Oranu (2012) stated that the best means available for assessing the effective, psychomotor as well as cognitive skills of the learner includes, direct observation, rating scale, check list, interest invention, participation charts and interview since process assessment has to do with observing a performance and objectively passing a valued judgement over it. Similarly UNESCO (2012) observed that some quality or skills of the student's to be assessed when assessing and grading specific stage of a given work piece should include ability to complete all the work stage on a work piece on schedule supporting this view, Oroge (2012) stressed that process grading has become imperative as this may involve assessing and grading students' ability to read and interpret drawings. In line with above, Uzoagulu (2016) opined that practical task must be evaluated properly so as to induce high standard students' who are expected to think (cognitive), execute, design and construct (psychomotor) and exhibit good cooperative attitude towards others and the use of tools and equipment (affective). It is through observing, rating tasks such as tools election and usage, compartment of the students' care for the tools and equipment, adherence to safety practices of both worker and others.

Research question two dealt with procedures in developing assessment instrument. The finding in table 3 revealed that all the procedures were found to be relevant in developing assessment instrument in Brick/ Bricklaying and concreting except item five which is on developing training materials to accompany the assessment instrument. This finding was in line with views of white and Ahmadu (2013) who suggested that to achieve the goal of developing an assessment

instrument, the researcher should review the existing instruments, determine the domains to be included in the items; define the response categories to be included in each domain. Supporting this findings Ogbozo (2016) noted that for a valid and effective assessment instrument, the following criteria should be considered: define clearly the aim of the study in the instrument, list out all the attributes or characteristic that need to be observed in the study, decide on the recording system to be used and construct the required model for recording observation. Research question three dealt with the facilities required in assessing students' practical work in Brick/Blocklaying and concreting. The findings in Table 4 revealed that all the facilities listed are required in assessing students' practical work. This finding is line with the views of Ezeji, (2004) who observed that adequate provision of facilities in carrying out practical exercise helps students acquire industrial technical knowledge and skills through creative and problem solving, learning experiences involving such activities as experimenting, planning, constructing evaluating, and using tools machines materials and processes. The instructional and laboratory experiences help students to make wiser and more valid educational and career initial consideration concerns the goals of a sound programme which facilities plays a greater role. Supporting this finding, Abdullahi, (2014) emphasized that for adequate training of students in skill acquisition in their subject areas, the required facilities in the workshop must be provided for effective training.

### **Conclusion**

Based on the findings of this study, the following conclusions are drawn:

The graduates of Technical Colleges required relevant skills to perform competently on the practical work. An assessment instrument developed if adopted for use in all the Technical Colleges in the state will help the students to improve on their practical performance.

### **Recommendations**

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

1. Brick/blocklaying teachers at technical colleges should de-emphasis the use of product assessment only but, rather combine both product and process assessment method
2. Examination bodies such as National Business and Technical Board (NABTEB), National Examination Council (NECO), West African Examination Council (WAEC) should consider and adopt the developed instrument for assessing student's practical performances in Brick/Blocklaying and Concreting at NTC and ANTC levels.
3. Brick/blocklaying teacher's should be acquainted with the developed instrument to enhance uniform standard in assessing student's practical work
4. All the characteristics or attribute that need to be observed in students should be listed out with the required mode of grading before assessing students practical work
5. Niger state science and technical schools board should also adopt the developed instrument for assessing student's practical performance at technical college level.

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