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Strategies for Enhancing the Teaching of Foundry Technology in Colleges of Education (Technical) in North Western States of Nigeria

Munkaila Abdullahi Dokadawa
Department Of Education (Technical)
School of Technology
Kano State Polytechnic, Kano
Email: amirgetso@yahoo.com

ABSTRACT
The study was designed to identify the strategies for enhancing the teaching of Foundry technology in Colleges of Education (Technical). The study is a survey research design. A structured questionnaire of different strategies for teaching was used for data collection and was administered to 79 teachers of Foundry technology in Colleges of Education (Technical) in North western states of Nigeria. Based on the findings conclusion was drawn that the respondents accepted the needs for instructional, utilitarian use of instructional materials and evaluation strategies for enhancing the teaching of Foundry technology Colleges of Education (Technical) in North western states of Nigeria. As this will result to producing graduates of Colleges of Education (Technical) who's apart from the teaching job will be self-reliant and enterprising.

INTRODUCTION

Technical and Vocational Education and Training (TVET) is an educational program dealing with skill acquisition which has been recognized as a life wire for the economic and technological development of any nation. TVET according to UNEVOC International Centre for Technical and Vocational Education and Training (2006) is a range of learning experiences which are relevant to the world of work and which may occur in a variety of learning context, including in educational institutions and workplaces. It include learning designed to develop the skills for practicing particular occupations as well as learning designed to prepare for entry or re-entry into the world of work in general. Osuala, (2004) describes Technical education as an aspect of general education that involves theoretical, scientific and practical skills. Osuala added that technical education is designed at upper secondary and lower tertiary levels to

prepare middle level personnel. These middle level personnel are needed to develop and inculcate proper values for the survival of the society. Also, the personnel are to promote and encourage scholarship and community service (Federal Republic of Nigeria, FRN 2004). However, government emphasis on skill acquisition according to Ogbu, (2007) has led to the establishment of Technical and Vocational Education and Training institutions at all levels of the nation's educational system. These institutions include Universities, Polytechnics, Monotechnics, Colleges of Education (Technical) and Technical Colleges.

The Colleges of Education (Technical) are concerns with technical teacher education programs leading to the award of NCE (Technical) (Alagbe, 2007). College of Education (Technical) is a tertiary institution under the control of the National Commission for Colleges of Education (NCCE). Offorma (1994) stated that NCCE handle the curricular of Colleges of Education. The National Commission for Colleges of Education (NCCE) (2008) states that one of the objectives of the College of Education (Technical) is to produce qualified technical teachers. The products/graduates of College of Education (Technical) are expected to acquire both physical and intellectual skills which will enable them to be self-reliant and useful members of the society (FRN, 2004). By extension Nigeria Certificate of Education (Technical) graduates apart from the teaching work are expected to be self-employed and employ others thereby reducing the level of unemployment in the society. Among the employability courses offered in Colleges of Education (Technical) are: Automobile Technology, Building technology, Electrical/Electronic Technology, Metalwork technology and Woodwork Technology.

Metalwork Technology is one of the Technical education courses offered at the Colleges of Education (Technical). It includes trades such as General Metalwork, Sheet Metalwork, Welding and Fabrication, Foundry and Forging and Machine shop practice. Foundry technology is one of the trades in Metalwork technology that involves casting of metal. It is a technical trade which deals with melting of metals and it's pouring into a mould to make parts for machines, tools etc. Jain, (2008) stated that Foundry technology is the area of metal working processes which involves melting a metal, pouring it into prepared cavity to take the shape and size of the mould. According to Heine,

Loper and Rosenthal (2006) Foundry technology is the process of forming metal objects by melting and pouring it into a mould. Crawford (1979) earlier on explained that Foundry technology consists of introducing the molten metal into a cavity and molding of desired shape and allowing it to solidify. Foundry technology is made up of several practical skill areas namely: safety precautions, tools and equipment, pattern and core making skills, mould making skill and finishing skill. To effectively teach these Foundry technology skills theoretically and practically, teachers should have strategies that will enable them to be able to enhance the teaching of the subject.

The teachers of foundry technology are trained in Polytechnics and Universities. The teachers are responsible for teaching both theories and practical's aspects of the foundry in Colleges of Education (Technical) (Abdullahi, 2010). Graduates of Universities are referred to as lecturers and those of Polytechnics as instructors. A lecturer handles the theoretical aspects of foundry work and an instructor is the one who teaches the practical parts of the subject. In an effort to make foundry teachers capable of teaching the theory and practical aspects of foundry processes a number of strategies must to be employed.

Strategy is a planned series of actions for achieving something. Hornby (2004) defines strategy as a plan that is intended to achieve particular purpose or the process of planning something or carrying out something in a skillful way. According Davis (2001) strategy is a plan, a method or the series of maneuvers or stratagems for obtaining a specific goal or result. In this context strategy refers to a design employed by Foundry teacher in the classroom or workshop, a series of activities and actions taken to facilitate effective teaching of Foundry technology. In the opinion of Aggarwal (2009) strategy in teaching requires comprehensive instruction that include attention to propositional knowledge (what to do), procedural knowledge (how to do it) and conditional knowledge (when and why to do it). Akuezuilo and Okon in Olowodun, (2006) states that teaching strategy include not only the manner of presentation that the teacher employs but everything that should be done in the way of arranging conditions, grouping students, guiding activities, making assignments and providing information to aid learning. However, for the teaching activities to be effective it has to be enhanced in order to achieve the desired end.

Enhancing is an act of improving something. It is a process of improving or making something better in terms of quality, values and usefulness. This can be made by ideas, objects or processes more desirable by adding or removing components (Aggarwal, 2009). It is no doubt that strategy for enhancing teaching will have a positive impact on the performance of foundry technology teachers. This is because use of non-enhanced strategies by teachers lead to poor performance (Olowodun, 2006). So, to make the delivery of lesson effective strategies must be devised to improve the pedagogical skills of Foundry technology teachers. It is highly needed due to the advancement and innovations in the aspects of foundry operations. The improvement will provide the teachers with relevant practical and theoretical training in order to enhance the skills and teaching pedagogy (Fore and Mbohwa, 2010). However, the pedagogical skills improvement must be centered on such areas as instructional strategies, utilization of Instructional materials and evaluation strategies.

Instructional strategy is the procedure of how the act of teaching is to be carried out gradually. According to Saskatoon, (2009) instructional strategies determine the approach a teacher may take to achieve learning outcome. Kameenu Cernine, (2009) opined that instructional strategies are methods that are used in the lesson to ensure that the sequence or delivery of instructions helps students learn. Merill, (2010) maintains that if an instructional experience or environment does not include the instructional strategies required for the acquisition of the desired knowledge or skill, then effective, efficient and appeal of the desired outcomes will not occur. In this context, therefore, Foundry technology teachers must acquire instructional strategies to make teaching effective, efficient and appealing to the objective of NCE (Technical) program. This act will help to enhance the teaching of foundry operations when and consequently improve students' performance. The term instructional strategy is used to describe the process a Foundry technology teacher employ to sequence and organize content specify learning activities and decide how to deliver the content and activities (Dick & Cary, 2005). So, it is through instructional strategy that a Foundry technology teacher deals with how to actually teach students the different aspects of foundry work. Nwachukwu, (2006) views instructional strategies as decision about organizing people, material and ideas to provide learning. As such instructional strategies play vital role of promoting

active engagement and participation of students in teaching- learning process which can result to enhanced teaching. Based on this background, the need arises for Foundry teachers to examine and employ various instructional strategies suitable to his situation in order to enhance the teaching of Foundry technology in Colleges of Education (Technical). However, use of different instructional strategies for improving teaching will only have the required impact when supplemented with good utilizations of instructional materials.

Instructional materials are devices a teacher uses in teaching to assist him to change students attitudes and behavior. According to Ajidagba, Olumorin & Yusuf (2009) instructional materials are those materials that help a teacher to teach with ease and learners to learn without stress. It is essential to foundry technology teachers to possess strategies for utilization of instructional materials because the teaching of foundry processes will be done at ease and student will learn without pressure. Strategies for utilization of instructional materials are the overarching description of an initiative, its goals and the approach for attaining the objectives of using instructional materials (Ward and Parkin, 2006). According to Gonzalo (2010) in utilization of instructional materials is intended to help educators in the planning, development and implementation phase of instruction. Nwachukwu, (2005) opined that instructional materials in Vocational Technical Education are all the practical and skill developing resources that would facilitate the processes of teaching, learning and evaluation of vocational and technical skills. However, in this context instructional materials can be described as any device employed by the foundry technology teacher to transmit facts, facilitate skills knowledge acquisition and improve on attitudes and understanding of students (Ogwo & Oranu, 2006). In fact, the use for these devices in teaching is indispensable as it help teachers to capture attention and interest of the students. Therefore, a good utilization of instructional materials in the teaching of Foundry processes will give a teacher an opportunity to employ different strategies for evaluating teaching-learning outcomes for the purpose of improving the teaching of Foundry processes in Colleges of Education (Technical).

Evaluation is concerns with determining or attaching value to something. According to Okoro, (2005) evaluation is the appraisal of the worth or value of things or action and the making of appropriate decision on the basis of such

appraisal. Nwachukwu, (2006) sees evaluation as the process of determining how much learning the learner in an educational setting has acquired. On the other hand, evaluation strategy is an act of organizing a complete evaluation structure. According to Ward & Parkin, (2006) evaluation strategy is a process which produce useful actionable and meaningful data, around which entire learning program can be built. Ward & Parkin added that in learning evaluation a strategy constructs a means of relating measured changes in performance based on training back to organizational goals. Massey, (2005) views strategy for evaluation of teaching as a system that provides information useful to teachers for teaching improvement. Teaching improvement occurs when motivated Foundry technology teachers acquire new and valued knowledge which is obtainable through use of evaluation strategy (Hoyt & Pallet, 1999). In this context therefore, it is important for Foundry teachers in Colleges of Education (Technical) to employ both formative and summative evaluation strategy in order to enhance teaching of Foundry technology.

However, the importance of orienting Foundry technology teachers in Colleges of Education (Technical) to acquire strategies for enhancing teaching will not be over emphasized. Basic Foundry functions which where hitherto carried out manually are nowadays undertaken using machines. In addition, Foundry can now be produced using specially designed and computerized pattern making machine. Chinda (2000) states that the application of technology in the foundry technology brought about both improvement in quality, rate of production, reduced human labor and error in delivery time and rate of turnover. In addition, the growth of technology resulted to the need of multi-skilled workers by employers and the changes and innovations in aspects of Foundry work. In the view of Riodan & Rosas in ogwo & Oranu, (2006) there is need for educational institutions to adjust to the technological changes and new forms of work organization in order to ensure production of employable labor force. Likewise, innovations in educational technology have produced a lot of new teaching strategies and methods which school teachers should master and use more especially in teaching technically oriented courses like Foundry technology (Lubis, 2010). As a result of this emerging trends in foundry processes and innovations in educational technology call for the need on Foundry technology teachers in Colleges of Education (Technical) to devise strategies for enhancing teaching to keep in pace with the new development.

In Nigeria, Colleges of Education (Technical) is TVET educational institution saddled with the responsibilities of producing graduates who are expected to serve as teachers and also to be self-employed and employ others (FRN, 2004). But it is unfortunate to note that the performance of these graduates is below expectation. This trend is associated with untrained and unqualified teachers at all levels of education both in quality and quantity which resulted in low quality graduates (Jen, 2010). According to the conference of Ministers of Education of the African Union (COMEDAF) (2007), the delivery of quality TVET is dependent on the competence of the teachers. Competence is measured in terms of theoretical knowledge, practical skills and pedagogical skills as well as being abreast with technologies in the world of workplace. COMEDAF explains that taking into account the key strategic issues and guiding principles, the main goal of the strategy may be to promote skills acquisition through competency-based training with proficiency testing for employment, sustainable livelihoods and responsible citizenship. Against this background therefore, it has become imperative to evolve strategies for enhancing the teaching of Foundry technology in Colleges of Education (Technical) in Northern Western states of Nigeria in order to address this occurring shortcoming.

STATEMENT OF THE PROBLEM

The current technological advancement taking place globally resulted in changes in operations, concepts, materials and techniques employed in the industrial sector of the economy. The advancements came up with refinement in aspects of foundry works. Basic Foundry operations which were hitherto carried out manually are nowadays undertaken using machines. Likewise, cast components can be produced using specially designed and computerized pattern making machine. Chinda (2000) contended that the application of technology has brought about both improvements in quality, rate of production, reduced human labor and error in delivery time and rate of turnover. According to Lubis, (2010) innovations in educational technology have produced a lot of new teaching strategies and methods which school teachers should master and use in teaching. This emanate from the type of training they received during the pre-service period. The curriculum on which the long serving foundry teachers were trained is inadequate in terms of modern teaching pedagogy strategies (Onyemachi, 2004). This menace gave

birth to producing non competent NCE (Technical) graduates whose performance is below expectation. In reality, the Foundry technology teachers in Colleges of Education (Technical) need to acquire concepts, principles and procedures of the new teaching strategies in order to teach the course efficiently and effectively.

Ideally the purpose of tertiary institutions is to provide the recipients with both physical and intellectual skills which will enable individuals to be self reliant and useful member of the society (FRN, 2004). But, it is unfortunate to note that this noble objective is not fully realized taking into consideration the caliber of Nigeria Certificate of Education (Technical) graduates. This is so because it appears that the teachers in Colleges of Education (Technical) are not competent enough to teach the course. One of the major constraints is the untrained and unqualified nature of teachers at all levels of education both in quality and quantity resulting in the low production of qualitative graduates (Jen, 2010).

The above situation came up due to the fact that Foundry technology teachers in Colleges of Education (Technical) have deficiencies in terms of teaching pedagogical skills of technical and vocational education courses. This situation need to be addressed when viewed in line with the saying that no system of education can rise above the quality of its teachers (FRN, 1998). It then follows that teachers involved in TVET program must possess the requisite teaching skills. Bridging this shortfall is the focus of the study. Therefore, the problem of the study can be posed by the question: what are the strategies for enhancing the teaching of Foundry technology in Colleges of education (Technical) in North Western states of Nigeria?

Research Questions

1. What are the instructional strategies required for enhancing the teaching of Foundry technology?
2. What are the utilitarian strategies for employing of instructional materials for enhancing the teaching of Foundry technology?
3. What are the evaluation strategies for enhancing the teaching of Foundry technology?

METHODOLOGY

The Study adopted survey design research design. The area of the study was North Western states of Nigeria. There were ten (10) Colleges of Education (Technical) and Polytechnics offering NCE (Technical). The total population of the study was seventy nine (79). Fifty nine (59) were lecturers while twenty (20) were instructors in the respective institutions. There was no sampling because the size of population was manageable. The instrument used for data collection was a structured questionnaire made up of seventy two (72) items. A five points Likert scale response mode was used and the Numerical value was assigned to options as thus; Strongly Agree (A) = 5, Agree (B) = 4, Undecided (C) = 3, Disagree (D) = 2 and strongly disagree (E) = 1. Three experts in the Department of Vocational Teacher Education, University of Nigeria Nsukka validated the instrument. Rank order correlation was used to determine the internal consistency of the instrument and yielded a coefficient of 0.86. All the seventy nine questionnaires copies were distributed to the respondents. All the questionnaires were retrieved showing 100% return rate. The data was analyzed using mean and standard deviation. For items with Mean of 3.50 or above were considered as agree; while items with Mean rating less than 3.50 were considered as disagree.

Table 1: Mean and Standard Deviation of the respondents on the area of instructional strategies for enhancing the teaching of foundry technology

S/NO	Items	X	SD	Remark
1	Use Cluster Instructional Material	4.26	.729	Agreed
2	Teach Lower level subordinate skills followed by the higher one until the main goal is achieved	4.44	.656	Agreed
3	Present skill after presenting all related subordinate skills	4.10	.847	Agreed
4	Describe learning components for a set of instructional materials	4.36	.683	Agreed
5	Select delivery system along with the media to present the information in the instruction	4.10	.672	Agreed
6	Group students to motivate and keep them interested in the lesson	4.50	.575	Agreed
7	Use the learners' capabilities, resources available, nature of curricular content and objectives to be achieved	4.27	.693	Agreed
8	Adopt appropriate reinforcement to serve as a motivating factor	4.10	.841	Agreed
9	Evolve appropriate maxims of teaching in the teaching	4.11	.716	Agreed

	process			
10	Develop basic and advanced skills by clear objectives, breaking instructions into steps and reinforcing progress	4.44	.713	Agreed
11	Enable students to reflects on learning that occurs in work settings, internship, travels or outdoor activities	3.97	.920	Agreed
12	Share information and work cooperatively on projects	4.29	.705	Agreed
13	Identify important principles, key concepts and big ideas from the curriculum and apply across major topic in the subject content	4.32	.611	Agreed
14	Provide students with temporary support for learning new knowledge and skill and reduce it gradually as they move toward independence	3.85	1.145	Agreed
15	Teach students to follow specific set of procedures to use a process or device	4.34	.749	Agreed
16	Adopt work based teaching – learning principles	4.29	.686	Agreed
17	Divide process into group of skills and teach one at a time	4.32	.798	Agreed
18	Involve students in the actual skill practice immediately after demonstration	4.51	.658	Agreed
19	Employ instructional material/devices and job sheets	4.18	.828	Agreed
20	Consider the timing and planning of the first attempt of teaching skill to be practiced	4.08	.747	Agreed
21	Make students practice any new skill learnt repeatedly until actual perfection is obtained	4.46	.636	Agreed
22	Make good judgments in the choice of instructional projects to determine the level of actual skills students should carry to the real world of work	4.18	.844	Agreed
23	Outline the skills students are to master in a particular lesson and design type of practice activity that will involve these skill	4.14	.780	Agreed
24	Make use of the real job for teaching – learning certain skills	4.12	.882	Agreed
25	Analyses each instructional project to determine whether the skills involve are those previously stated in the course content	4.04	.669	Agreed
26	Know how to lead and cooperate with students and colleagues	4.28	.767	Agreed
27	Provide a high support to the panic and unsecure students no matter what	3.72	1.068	Agreed
28	Set out materials to be taught in an interesting and attractive summary form before the lesson commence	4.35	.680	Agreed
29	Adopt continuous orientation of students to the skills taught by repetition of the whole demonstration; illustration or explanation	4.10	.826	Agreed

30	Give students short break and allow them to think over the lesson and to digest and process what they were taught/learnt	4.22	.842	Agreed

Table 1 indicates that on the Instructional strategies required by teachers for enhancing the teaching of Foundry technology indicates that all the 30 items are required. Items have mean value from 3.72 and above for teachers in Colleges of Education (Technical).

Table 2: Mean and Standard Deviation of respondents on the area of utilitarian strategies for employing Instructional materials for enhancing the teaching of Foundry technology

S/NO	Items	X	SD	Remark
31	Use of Instructional materials based on the instructional objectives	4.54	.526	Agreed
32	Use of Instructional materials based on the instructional content at the hand	4.36	.805	Agreed
33	Use of Instructional materials that are interesting and motivating	4.34	.749	Agreed
34	Use of Instructional materials that are true representation of the real object	4.46	.833	Agreed
35	Use of Instructional materials that which can be prepared locally	4.00	1.062	Agreed
36	Use of Instructional materials that which have easy physical control features	4.10	.826	Agreed
37	Look critically at the use of the instructional materials before putting it in lesson presentation	4.20	.648	Agreed
38	Employ instructional materials that will guide the students' response to stimulate them to the lesson	4.37	.647	Agreed
39	Employ instructional materials that will facilitate skills development of students	4.35	.734	Agreed
40	Use instructional materials that will be in line with the students' levels of maturity and ability	4.42	.744	Agreed
41	Select instructional materials in line with the intended concepts and skills to be taught	4.38	.562	Agreed
42	Selecting to be based on the teacher manipulative abilities to use the instructional materials to illustrate and demonstrate tasks during the lesson delivery	3.92	.769	Agreed
43	Use selected instructional materials essential to curriculum logical skill for effective instruction	4.09	.850	Agreed

44	Know the operational practice to be performed	4.18	.734	Agreed
45	Know the time to put the instructional materials into use	4.33	.715	Agreed
46	Know the actual operation to use the instructional materials	4.25	.792	Agreed
47	Coordinate instructional materials with unit or lesson plan	4.12	.789	Agreed
48	Present new and pertinent materials of varied media at regular interval	3.80	.897	Agreed
49	Know the cost of the instructional materials to put into use	3.61	1.126	Agreed
50	Know the time to spend in search of the required instructional materials	3.77	.933	Agreed
51	Know the quality of instructional materials to retain their usefulness after being handled by students	4.32	.589	Agreed
52	Know the adaptability of instructional materials to various needs of different units of the course content at hand	3.95	.815	Agreed
53	Ensure effective organization of instructional materials to help students acquire manipulative skills	4.23	.659	Agreed

Table 2 indicates that on the strategies for utilization of Instructional materials required by teachers for enhancing the teaching of Foundry technology indicates that all the 23 items are required. Items have mean value from 3.61 and above for teachers in Colleges of Education (Technical).

Table 3: Mean and Standard Deviation of respondents on the area of evaluation strategies for enhancing the teaching of Foundry technology

S/NO	Items	X	SD	Remark
54	Use multiple methods of evaluation	4.14	.971	Agreed
55	Use multiple sources of data for evaluation	4.15	.869	Agreed
56	Involve other teachers in the department/section in developing evaluation methods and criteria	3.96	1.103	Agreed
57	Engage teachers in the department/section in evaluation of the students learning by conducting classroom research	3.86	1.083	Agreed
58	Develop the evaluation flexible to take care of difficult instructional methods	4.08	.781	Agreed
59	Use principles of individualized evaluation system	3.85	.893	Agreed
60	Introduce the use of end of course rating form to collect evaluation data from students	4.03	.577	Agreed
61	Collect evaluation data from mid-course and periodic students' feedback throughout the term	4.18	.619	Agreed

62	Collect information for evaluation from departmental/sectional expertise colleagues as raters of teaching	4.12	.756	Agreed
63	Employ teaching dossier for evaluation which is an actual description of teacher's major strength and teaching achievement	4.10	.783	Agreed
64	Use written examination to get evidence on attainment of knowledge, ability to analyze problem critically or recall and organize a relatively large amount of materials	4.04	.854	Agreed
65	Use practical examination to test the level of practical skills students possessed	4.47	.527	Agreed
66	Use interview to secure evidence concerning growth of interest and change of attitudes	3.92	.764	Agreed
67	Identify learning goals to carry out the evaluation	4.23	.682	Agreed
68	Provide students with descriptive feed back of their learning in order to engage them in evaluation	4.18	.739	Agreed
69	Embed questioning strategies in unit/lesson planning	3.92	.894	Agreed
70	Employ check list method in evaluation process	4.01	.785	Agreed
71	Use students practical project to get evidence of skill possessed	4.45	.735	Agreed

Data in the Table 3 on the evaluation strategies required by teachers for enhancing the teaching of Foundry technology indicates that all the 19 items are required. Items have mean value from 3.85 and above for teachers in Colleges of Education (Technical).

FINDINGS AND DISCUSSION

The strategies for enhancing the teaching of Foundry technology in Colleges of Education (Technical) were analyzed and ascertained as they were found relevant. This finding is a clear indication that those strategies are complementary for efficient and effective teaching of Technical, Vocational Education and Training in general and Foundry technology in Particular for achieving the desired teaching outcomes. The result showed that an instructional strategy presented in table one has means ranging from 3.72 and 4.51. The respondents realized that possessing the instructional strategies is essential for the successful achievement of the objectives of teaching of Foundry technology. This is in line with the opinion of Merill, (2010) who states that if an instructional experience or environment does not include the instructional strategies required for the acquisition of the desired knowledge or skill, then

effective, efficient and appeal of the desired outcomes will not occur. In addition, the findings showed that the respondents appreciated the necessity of instructional strategy as an approach through which they can teach students the procedures on how to apply the practical aspects of Foundry works. And this understanding coincided with the view of Aggarwal (2009) that instructional strategies should aim at providing opportunities to students to apply practically the knowledge that has been acquired by them.

Table two shows the utilitarian strategies for employing of instructional materials for enhancing the teaching of Foundry technology has a mean between 3.61 and 4.54. Hence, the need for strategies for utilization of instructional materials for improving teaching of Foundry technology will not be over emphasized. This is essential as a teacher requires it at planning stages to be incorporated in the implementation procedures of lesson delivery. This result agrees with the finding of Gonzalo (2010) who maintains that utilization of instructional materials is intended to help educators in planning, developing and implementation phase of instruction. The findings of the study showed that the respondents require strategies for utilization of instructional materials as a means to assist the teaching and evaluation Foundry skills. This is in accordance with the opinion of Nwachukwu (2006) who states that instructional materials in Technical Vocational Education and Training are all the practical and skill developing resources that would facilitate the process of teaching, learning and evaluation of vocational and technical skills.

The analysis of research question three in table three such finding as indicated by mean rating of teachers on evaluation strategies for enhancing teaching of foundry technology were all agreed. All the respondents believed that evaluation strategies are required as a measure for improving the teaching of Foundry technology of TVET courses in general and Foundry technology in particular. This is based on the fact that evaluation strategies enable teachers to have information that will guide them to measure learning outcomes and at the same time it will serve the purpose of developing teaching. This is in conformity with interpretation of Ward & Parkin, (2006) that evaluation strategy is a process which produce useful actionable and meaningful data, around which learning program can be built. In addition, this finding agreed

with Massey's, (2005) opinion that strategy for evaluation of teaching is a system that provides information useful to teachers for teaching improvement.

CONCLUSION

It is through effective technical teacher training program that the objectives of the nation's technological development can best be realized. This is obvious since training is one of the conditions through which teachers' effectiveness can be influenced. The following conclusions were made based on the result of study. From the findings there is the conclusion that there were shortages in the desired strategies for enhancing the teaching Foundry technology. As a result of this, teachers' performances on efficient and effective teaching of various Foundry processes were limited.

Furthermore, the shortages of adequate strategies for enhancing teaching of Foundry in Colleges of Education (Technical) resulted to producing incompetent NCE (Tech.) graduates. As such, the few strategies teachers possessed were utilized in teaching the foundry technology works to students. In nutshell, therefore the purpose of this research work has been met. This is due to the discovering that the requirements of strategies to enhance the teaching of Foundry technology in Colleges of Education (Technical) were glaringly visible.

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