



Effective Evaluation of Workshop Based Instruction for Quality Automobile Technology Craftsmen Development in Depressed Economy

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Abstract

The study identified skills required for effective management of technical college workshops in a depressed economy in Rivers State. A total population sample of one hundred and twenty-nine (129) vocational/technical teachers of the various governments technical colleges in Rivers State. The data for the study was generated through management of questionnaire containing thirty items. Survey research was used. The t-test statistics was used in analyzing the data. The findings of this study also agreed to that of the National Policy on Education (2014:7) as specified that success of any system of education is hinged on proper planning. Therefore, teachers should have good knowledge about planning of materials and tools to be used in laboratories. Such plans include; procurement of tools, equipment and materials that would be needed for developing course outline unit lessons, developing work objectives, provide work schedule, methods to be used for the lessons, time required and number of students to be scheduled in the workshop at a time. It was therefore recommended that technical skill is proficiency, based on specific knowledge, in a particular area of work. To have technical skills means that a person is competent and knowledgeable with respect to the activities specific to an organization, the organization's rules and standard operating procedures, and the organization's products and services. Technical skill is most important at supervisory levels of management, less important for middle managers, and less important for top managers such as CEOs and senior managers. Finally, technical skill is proficiency in working with things.

Key Words: Strategies, Technical College, Workshop, Management, Depressed Economy

Introduction

Strategies remain a matter of passionate debate amongst teachers; approaches vary depending on the beliefs a teacher holds regarding educational psychology (Francisco, 2017). A large part of traditional workshop-based instruction involves behaviour modification, although many teachers see using behavioural approaches alone as overly simplistic. Many teachers establish rules and procedures at the beginning of the school year. According to Gortman (2008) rules give students concrete direction to ensure that our expectation becomes a reality. They also try to be consistent in enforcing these rules and procedures. There is affirmation that teaching, which attempts to guide students toward success by helping them see how their effort pays off in the workshop or

classroom relies upon creating an environment where students are successful as a result of their own efforts. Ideally, this transforms a workshop into a community of well-behaved and self-directed learners.

Management strategies are terms teachers use to describe the process of ensuring that workshop lessons run smoothly despite disruptive behaviour by students (Mario, 2013). According to Murphy, Bajestani, Ferguson (2015), management is crucial because it supports the proper execution of curriculum development, developing best teaching practices, and putting them into action. Management strategies can be explained as the actions and directions that teachers use to create a successful learning environment; indeed, having a positive impact on students achieving given learning requirements and goals (Soheili & Alizadeh, 2014).

The teacher of technology is a vocational and technical worker who has acquired professional training in teaching with skills in the use of tools and machines to produce varied items of constructions including electrical technology for those in the workshop (Amenger, 2013).

Soyemi (2012) viewed technical and vocational skills as vital to economic development because they are required for big business (industry) efficiency and gainfulness and individual thriving. According to Abraham and Millar (2011), practical skill is concerned with the actual doing or use of something rather than theory and idea. Skill is the ability to do something technically in an unsupervised manner. Skill is a particular kind of learning habits or method of acquiring new knowledge. To be skilled may require some training and experience which are well established habits of doing things by people (Benkokk and Kenegie, 2011). Therefore a person that works productively is skilled because he has acquired the habit of performing a task in an acceptable job. There are various categories of skills. For example motivated skills, are those we enjoy using, enjoy doing. Technical skills are those that call for proficiency in specific activity, particularly those involving methods, processes, procedure or technique for their performance.

The experience and research indicate that many beginning teachers have difficulty effectively managing their classrooms. While there is no one best solutions for every problem or classroom setting the following principles drawn from a number of sources might help classroom teachers with many years of experience have contributed to an understanding of what works and what doesn't work in managing classrooms and the behaviour of students. Accidents were frequently observed in the workshop and the little facilities in the vocational and technical workshops were not well managed to achieve the desired aims and objectives of the programme. Many of the students observed were not showing the desired enthusiasm expected of them in construction especially using electronic components. It can infer from these observation that students graduating from vocational and technical programmes with low skills will find it difficult to adjust to the changing technology in their field. The retraining of this graduate may be very expensive on the part of the individual or the government. If vocational and technical teachers are effectively retrained through management skills, identified by the study, it may have a pro long positive effect on vocational and technical students and workshops in technical colleges. It may also help to reduce the cost of the retraining of vocational and technical teachers and workers in the management tools and machines at their respective places of work.

Effective management skill contribute to an organizations instructional effectiveness and financial wellbeing; improve the cleanliness, orderliness and safety of an educational organization's facilities; reduce the operational costs and life cycle lost of a building; help staff deal with limited resources by identifying facilities priorities proactively rather than reactively; extend the useful life of buildings; increase energy efficiency and help the environment. For effective realization of the objectives of relationship between teachers' management skill and their effective management of vocational/technical workshop operation in Rivers State, it becomes a necessity that members of workshop and non-workshop staff imbibe the culture of strategic planning at the point of installing and eventual utilization of workshop facilities so as to enhance the pupils' practical experiences.

Evaluation is the process that includes measurement and possibly testing but it also contains the notion of value judgment. If a teacher administers a test to a class and computes the percentage of correct responses, it is said that measurement and testing has taken place. The scores must be interpreted which may mean converting them to values like As, Bs, Cs and so on or judging them to be excellent, good, fair, or poor. This process is called evaluation. So we can say, evaluation is concerned with making judgments about things. When we act as evaluators, we attribute 'value' or worth to behaviour, objects and processes.

Evaluation has been described by Okoro (2010:39) as the determination of worth of thing. It includes obtaining information for use in judging the worth of a programme, produce procedure approaches designed to attain specific objectives.

Olaitan and Okoro (2010:40) also noted that:

- Evaluation involves a systematic processes;
- It is a controlled observation of pupils' change in behaviour
- Evaluation assumes that instructional objectives have been previously identified as:
 - a) Formative evaluation (when an instruction is in progress)
 - b) Summative evaluation (after total programme has been completed).

An evaluation is methodical, providing information is credible, reliable and useful to enable the incorporation of lessons learned into decision-making process of users and founders (OECD, 2010). Evaluation is based on empirical evidence and typically on social research methods, thus on the process of collecting and synthesizing evidence (Rossi Lipsey and Freeman, 2004).

Evaluation can be conducted for the purposes of decision-making, judgment, conclusion, findings, new knowledge, organizational development and capacity building in response to the needs of identified stakeholders leading to improvement, decision about future programming, and/or accountability ultimately informing social action ameliorating social problems and contributing to organizational or social value (Yarbrough et al, 2011; Patton, 1997).

Olaitan (2011:81) made the following guidelines available for teachers;

- Develop a list of objectives of performance in vocational/technical courses;
- Develop skill evaluation form;
- Analyses and improve skill rating

- Record evaluating grades
- Provide feedback to students
- Students identify faults on their project outcome

Evaluation provides feedback for judging the objectives of the programme. If the objectives were not achieved, the evaluation helps to identify the areas of shortcoming in the programme. In a study conducted by Asiabaka (2008) to investigate material resources management skills needed by the school teachers in Ondo state. It was found that 68 material resources management skills needed by preschool teachers in Ondo state which specifically include: 15 material resource planning, 14 material resource organizing, 19 material resource controlling and 20 material resource evaluation skills. There were no significant differences in the main ratings of the responses of preschool teachers, preschool management and Home Economics lecturers on the material resource skills needed by preschool teachers in Ondo State.

In economics, a depression is a sustained long-term downturn in economic activity in one or more economics. It is a more severe economic downturn than a recession, which is a slowdown in economic activity over the course of a normal business cycle. Depression is an unusual and extreme form of recession. Depressions are characterized by their length, by abnormally large increases in unemployment, falls in the availability of credit (often due to some form of banking or financial crisis), shrinking output as buyers dry up and suppliers cut back on production and investment, large number of bankruptcies including sovereign debt defaults, significantly reduced amounts of trade and commerce (especially international trade), as well as highly volatile relative currency value fluctuations due of currency devaluations). Price deflation, financial crises and bank failures are also common elements of a depression that do not normally occur during a recession. A protracted period of recession ushers in a depression. Demand for products and services decrease, forcing companies to shut down production facilities. Closing of production means a company cannot sustain its work force, and it is forced to lay them off. Unemployment leaves the consumers with very little disposable income needed to buy necessities. The gross domestic production declines and standard of living of the people also declines. The fall in prices of capital goods is more than that of consumer goods. The demand for loans declines because investor's confidence has been wiped away. Companies that cannot meet costs of production and repayment of loans are forced to file for bankrupting and liquidation.

Depression is a period of prolonged economic downturn arising from unending and extreme case of recession. Simply put, the inability of the system to manage recession gravitates to depression. This is why depression is a compound and complex economic situation often associated with unprecedented decline in people's income, failure in business activity and high unemployment rate. A depressed economy is prone to several unthinkable painful events. For instance, it is only a depressed economy that an employer sees rewards for its workers as abomination. The employer-employee relationship turns sour and this ultimately affects production. The economic hardship and uncontrolled inflation in Nigeria today has so impacted negatively on employer-employee relationship. This disconnect of course, with it multiplier effects, continuously breeds attitudinal change, low morale, low productivity, as it is been witnessed in the civil service today. Or what do you say of a worker who has not enjoyed his promotion arrears for almost two years? Situating these indices from may 2015 when president Muhammadu Buhari was sworn-in

till date, will attest to that fact that Nigerian economic challenges had crisscrossed through recession to depression. The president himself created a big room for recession to fester by refusing to constitute his cabinet for almost seven months on the excuse that he was looking for the best brains for his cabinet. (The tide-June 16, 2017)

However, the present economy depression will not last forever but how long it last will be determined by the quick identification of the depression and immediate control measures that are put in place. To survive recession as an institute, you should be cautious about institute expenditures, on the off change that your institution burns through cash on pointless things, for example, parties, rewards, excursions, motivating forces and some other things that have no immediate effect on your institute' s development, then it's a great opportunity to reduce them. Hence, the problem of the study was to identify what strategies to apply for effective management of technical college workshops in a depressed economy in Rivers State.

Purpose of the Study

The study sought to investigate strategies to employ by teachers for effective management of technical college workshop operations in a depressed economy in Rivers State. Specifically, the objectives of the study are to:

1. Process evaluation skills to apply by teachers for effective management of technical college workshop operations in depressed economy.
2. Stimulating creativity to apply by teachers for effective management of technical college workshop operations in a depressed economy.

Research Questions

The following research questions were answered to guide the study:

1. What are the evaluating skills to apply by teachers for effective management of technical college workshop operation in a depressed economy in Rivers State?
2. What are the stimulating creativity skills to apply by teachers for effective management of technical college workshop operations in a depressed economy in Rivers State?

Hypotheses

The following null hypotheses, which will be tested at 0.05 level of significance has been formulated to guide this study.

Ho There is no significant difference between the opinions of well experienced and less experienced technical teachers on the strategies to apply for effective management of technical college operations in a depressed economy in Rivers State.

Methods and Materials

The study adopted survey research design. The study was carried out in Rivers State where the effective management of vocational/technical workshop operations in a depressed economy are being accessed. Rivers state, also known simply as Rivers, is one of the 36 states of Nigeria. The

population of the study consists of one hundred and twenty-nine (129) respondents which comprise of all Government Technical College, Ahoada 23, GTC Eleogu 10, GTC Port Harcourt 90, and GTC Tombia 6 teachers. (Rivers State Primary School Board Management, 2017). The entire population were used for the study, and therefore there was no sample and hence, no sampling technique was adopted.

The instrument for the study was a closed structured questionnaire titled “Identification of Skills Required by teachers for Effective Workshop Management in Technical Colleges (ISREWMTTC)” developed after 5 point Likert rating scale of Strongly Agree (SA-5), Agree (A-4), Undecided (U-3), Disagree (D-2) and Strongly Disagree (SD-1). The questionnaire items were generated after extensive review of available literature on effective management of technical college workshop operations in a depressed economy. The items in the questionnaire were organized in accordance with the research questions developed to guide the study.

The instrument was validated by two experts in the Department of Vocational and Technology Education, Rivers State University. The experts were given a copy each of the instrument to indicate any irrelevant statement(s) or wrongly worded items. They were also requested to proffer suggestions for improving the instrument in meeting the purpose of the study. The suggestions and recommendations of the experts were integrated into the modified copy of the instrument before management. The reliability of instrument was determined through the test-retest method for a measure of its stability. Simple random sampling techniques were used to draw 27 teachers for the reliability test from different Government Technical Colleges in Akwa-Ibom State. Copies of the instrument were administered to the teachers and after an interval of one week; the same instrument was re-administered to the same group to respond to as usual. The initial and the retest scores of the group were correlated separately for each section of the instrument as well as for the entire instrument using Pearson Product Moment Correlation Coefficient. The reliability coefficient of 0.81 was obtained for the instrument.

The questionnaires were administered by the researcher through personal contact and with the help of four assistants. The respondents were given days to study and respond to the questionnaire. A return visit was made by the researcher and the assistants to collect the completed questionnaire after one week of the management. A total of 129 copies of the instrument were retrieved which was used for analysis of the study.

Mean and standard deviation was used to answer the research questions while z-test was used to test the hypotheses at 0.05 level of significance. Any item with mean value of 3.00 and above was accepted while mean value less than 3.00 was rejected. On testing the hypotheses, the decision rule was that if the calculated value of t (t_{cal}) is less than the critical value of t (t_{crit}), the hypothesis was accepted otherwise reject.

Results and Discussion

Research Question 1: What are the evaluating skills to apply by teachers for effective management of technical college workshop operations in a depressed economy in Rivers State?

Table 1 Mean Scores of Respondents on the Evaluating Skills by Teachers for Effective Management of Technical College Operations (N₁ =43 ; N₂ = 86)

S/ N	Item Statement	Well Experienced Technical Teachers			Less Experienced Technical Teachers		
		X ₁	SD ₁	Remark	X ₂	SD ₂	Remark
1	Obtain information on project achievement objectives levels.	4.33	.52	Accepted	3.50	.75	Accepted
2	Identify unachieved objectives.	3.85	.50	Accepted	3.65	.63	Accepted
3	Select best approaches for achieving goals.	3.53	.47	Accepted	4.43	.57	Accepted
4	Develop skill evaluation form.	4.36	.48	Accepted	4.19	.75	Accepted
5	Rate students' activities on the skill evaluation form.	3.77	.60	Accepted	3.54	.67	Accepted
6	Analyse skill rating of students.	3.91	.51	Accepted	3.67	.58	Accepted
	Grand mean	3.96	.53	Accepted	3.83	.66	Accepted

Source: *Researcher's Result; 2017* N₁=Well Experienced Teachers; N₂= Less Experienced Teachers

Data in table 1 shows the response of the respondents group (well Experience and Less Experience Technical Teachers) and their level of decision on a particular item. Item 19 to 24 was unanimously accepted by both respondents as evaluating skills by teachers for workshop management with a mean value which ranges between 3.53 to 4.36 for the well experienced technical teachers and 3.50 to 4.43 for less experienced technical teachers. Finally, the average mean 3.96 and 3.83 were obtain which shows that all the listed item are evaluating skills needed for management of technical college workshop in a depressed economy in Rivers State.

Research Question 2: What are the stimulating creativity skills to apply by teachers for effective management of technical college workshop operations in a depressed economy in Rivers State?

Table 2 Mean Scores of Respondents on the Stimulating Creativity Skills by Teachers for Effective Management of Technical College Operations (N₁ =43; N₂ = 86)

S/ N	Item Statement	Well Experienced Technical Teachers			Less Experienced Technical Teachers		
		X ₁	SD ₁	Remark	X ₂	SD ₂	Remark
	The following are stimulating creativity skills needed for workshop management						
7	Arrange a retail display to have maximum impact.	3.81	.81	Accepted	4.37	.85	Accepted
8	Creating an exam to test students' knowledge.	4.31	.83	Accepted	3.72	.83	Accepted
9	Increasing staff productivity by devising performance incentives.	3.54	.68	Accepted	3.72	1.20	Accepted
10	Generating unusual interview	3.77	.73	Accepted	4.24	.93	Accepted

	questions to assess key students' skills.						
11	Constructing a research method to test a hypothesis.	4.06	.92	Accepted	3.19	1.37	Accepted
12	Coming up with new procedures to improve quality.	3.89	.64	Accepted	3.86	.84	Accepted
	Grand Mean	3.89	.76	Accepted	3.85	1.03	Accepted

Source: *Researcher's Result; 2017* N₁=Well Experienced Teachers; N₂= Less Experienced Teachers

The result in Table 4.5 shows the response of the respondents group (well Experience and Less Experience Technical Teachers) and their level of decision on a particular item. Item 25 to 30 was accepted by both respondents as stimulating creativity skills by teachers for workshop management with a mean value which ranges between 3.54 to 4.31 for the well experienced technical teachers and 3.19 to 4.37 for less experienced technical teachers. Finally, the average mean 3.89 and 3.85 were obtained which shows that all the listed item are stimulating creativity skills needed for management of technical college workshop in a depressed economy in Rivers State.

Hypotheses

There is no significant difference between the opinions of well experienced and less experienced technical teachers on the strategies for effective management of technical college workshops in a depressed economy in Rivers State.

Table 3 t-Test Analysis on Stimulating Creativity Skill Required by Teachers for Workshop Management

Group	N	X	SD	Df	tcrit	tcal	Remark
Well Experience Technical Teachers	43	3.89	.76				
Less Experience Technical Teachers	86	3.85	1.03	127	.25	1.96	Accepted

Source: *Researcher's Field Result, 2017* Accept H₀ if Zcal ≤ Zcrit, else, Reject

The null hypothesis is accepted since the Zcal (0.25) is less than the Zcrit (1.960). This implies that there is no significant difference between the opinions of well experienced and less experience technical teachers on the strategies for effective management of technical college workshops in a depressed economy in Rivers State.

Discussion of Findings

Results in Table1 shows that evaluating skills help for effective management of technical college workshops in a depressed economy in Rivers State. The respondents accepted that evaluating skills as strategies to effective management of technical workshop by teachers in technology education programme that helps them to rate students' activities, select best approaches in

reaching goals, analysed students' skills in technical activities, identify the objectives that are achieved etc. This result corroborates with Yarbrough et al. (2011) who stressed that evaluation can be conducted for the purposes of decision-making, judgment, conclusion, findings, new knowledge, organizational development and capacity building in response to the needs of identified stakeholders leading to improvement, decision about future programming, and/or accountability ultimately informing social action ameliorating social problems and contributing to organizational or social value. Yarbrough (2011) further opined that evaluation includes developing a list of objectives of performance; develop skill evaluation form, select best approaches in reaching goals, analysed students' skills in technical activities, record evaluating grades etc. Evaluation provides feedback for judging the objectives of the programme. If the objectives were not achieved, the evaluation helps to identify the areas of shortcoming in the programme.

Results in Table 2 revealed certain creativity skills required by technical teachers in the effective management of technical workshops operations in a depressed economy in Rivers State. These skills as accepted by the respondents help technical workshop teachers in devising performance incentives, increasing productivity, innovating new procedures to improve quality in the workshop. This result is in corroboration with Allegbemi (2010) as pointed out that creativity skills acquired by technical teachers helps to interpret or explain various practical activities or projects to the students, develop in students a strong desire to possess the manipulative ability, allow students to perform the operation by themselves either individually or in groups, carefully supervising and correcting errors, give students further exercises that involved practical of the manipulative skills.

Conclusion

Conclusively, the identification of skills that are needed in the management of technical college workshops in a depressed economy in Rivers State cannot be overemphasized. This is because, for technical college to achieve its objectives and goals, the workshop must be functional and effective. Every functional workshop must be managed and maintain which is the core crux of a specialized skills like evaluation, organizing, coordinating and planning. Also, there will be effective teaching and learning process as the environment will be up and doing. However, lack of these management skills in technical college workshops in Rivers State will put the objectives of technical college in jeopardy and students cannot achieve practical skills as embedded in the college programmes.

Recommendations

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

1. Technical college teachers should possess planning skills as it helps in the management of workshops in provide work schedule, prepare budgetary allocations.
2. Technical college teachers should be train by government on management of workshop resources in order to achieve technical project and objectives.

3. Technical college teachers should be expose to coordinating skills as it helps in the supervision of students technical activities in the workshop.
4. Technical college workshop teachers should also posses evaluating skills as it helps in the selection of best approaches for achieving management goals.

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