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Perceived impact of mentoring programme on job satisfaction and performance among metalwork teachers

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Abstract

The study determined the perceived impact of mentoring on job performance and satisfaction among metal work teachers in North-West, Nigeria. A quasi-experimental design was used for the study. The sample was made up of 35 teachers drawn from four technical colleges in North West, which comprise of 16 teachers in the experimental group and 19 teachers in the control group. A questionnaire was used for data collection. Three experts validated the instrument and the reliability coefficient was 0.93. The experimental group received the mentoring programme which adapted the four stages of Krams model while the control group was trained with an unplanned and informal method. A pre-test was administered a week before the experiment to both groups followed by the treatment that lasted for 13 weeks. Similarly, post-test was administered to both groups two weeks after the treatment. ANCOVA was used to test the hypothesis. The findings revealed a significant impact of mentoring on job performance and satisfaction, but no significant influence of gender was observed. Hence, it was recommended that technical colleges in Nigeria should adopt the use of mentoring for improving metal work teachers job performance and satisfaction.

Keywords: Mentoring, Job performance, Job satisfaction, Metal work, Technical college

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Introduction

Globally, mentoring is recognized for promoting teacher learning and improving school effectiveness. It is one of the ways newly "recruited employees can easily adjust and adapt to the working environment. According to Nolan (2007) mentoring is a facilitated, structured process whereby an experienced person (mentor) assists and supports a less experienced person (mentee) in personal and professional growth. Mentoring programme is viewed as a structured and coordinated process of establishing relationship between mentor and mentee; using standard norms, continuous action plans, time frame, and particular objectives (Ehrich, Hansford, & Tennent, 2003). Farruggia et al (2011) identified types of mentoring programme suitable for training mentees to include: one-on-one mentoring, group mentoring, team mentoring, peer mentoring and electronic (e- mentoring). A proper training intervention as mentoring is expected to be based on the principles of a theory or model (VenWingerden, Bakker, & Derks, 2017). Hence, Kram's model of mentoring guided the training process of this study.

Kram's model of mentoring is a practical training model that is mostly applied in supporting less experienced person in the development of skills associated with career and personal responsibilities through encouraging interactions. It originally proposes that mentoring functions are aspects of a developmental relationship that enhance individuals' career and psychosocial growth and advancement.

(Wanberg, Hezlett, & Welsh, 2003). Wanberg et al stated that these mentoring functions differentiated mentoring from other workplace relationships. In the field of vocational education, Kram's model illustrates procedures for less experienced teachers to acquire manipulative, pedagogical and theoretical skills through formal mentoring training. Kram's model is a modified four-stage mentoring relationship involving: initiation, cultivation, separation and redefinition stages. In this study, Kram's model is applied to facilitate mentoring programme, for the less experienced male and female metalwork teachers in technical colleges to enhance job performance and retain them.

Mentoring relationships can be misconstrued among gender, because mentors engaged in behaviours that involve the provision of role modeling, observation and feedback to mentees. In male-to-male mentoring dyads, the process is virtually smooth and automatic, while it can be tedious and less automatic in cross gender dyads where the mentee or mentor is female and may be subject to gossips and female gender specific problems (Haynes & Ghosh 2012). Furthermore, Ofovwe and Agbontaen-Eghafona (2011) observed the disadvantaged position of female gender in mentoring relationships with the male colleagues, arising from gender stereotypes. Consequently, the mentoring process may reduce the mentoring experience and may not be productive for female mentees or mentors due to existence of sexual stereotypes that challenge career advancement of female employees (Young, Cady & Foxon, 2006). In spite of threat of sexual stereotyping, personal" and career supports mentoring are required by male as well as female metalwork teachers to be committed to their job and productive in technical colleges.

Technical colleges in Nigeria are established to produce craftsmen at the secondary school level. National Board for Technical Education (2001) described technical colleges as institutions where' students are trained to acquire relevant knowledge and skills in different occupations for employment in the world of work. Bakare (2009) stated that technical colleges are charged with the responsibilities of producing craftsmen and master craftsmen. This means that technical colleges are vocational institutions where students are trained on specialized skills relevant for the world of work. The duration of courses at technical colleges is three years for intensive instruction in classroom work and workshop practice at crafts (secondary) level, and four years for advanced crafts (post-secondary) level; leading to the award of National Technical Certificate (NTC) and Advanced National Technical Certificate (ANTC) respectively. On completion, graduates of technical colleges can proceed to polytechnics or universities for further studies, be self-employed, or secure employment in the industries. The objectives of technical and vocational education in Nigeria include: to provide trained manpower in the applied sciences, technology and business particularly at craft, advance craft and technician levels, provide the technical knowledge and vocational skills necessary for agricultural, commercial and economic development and give training and impart the necessary skills to individuals who shall be self-reliant economically under the guidance of a teacher (Federal Republic of Nigeria, 2013; Orji, 2015; Orji & Ogbuanya, 2018; Abei Zhang et al, 2020; Olelewe, et al. 2021).

The teacher is a model that is often relied on to deliver quality learning. Okorie (2005) described metalwork teachers as professionals who assist students to acquire knowledge, skills and attitude in metalwork. Oranu (2001) stressed the need for metalwork teachers to be professionally qualified and experienced by developing their skills continually. This demands that, the metalwork teachers are expected to be acquainted with practical skills and theoretical concepts of technical procedures, administrative procedures, working conditions, tools, equipment, work place arrangement, operation and motion sequences, materials (consumables), functional and well-equipped metal workshops, equipment and machines, quality requirements and other factors which may affect the performance of the job. In other words, metalwork teacher is a skillful, knowledgeable and experienced technical trainer who imparts the theory and practice of metalwork effectively.

Professional experience of a metalwork teacher is contingent on accumulated years of experience and can be a viable element that affects tasks delivery. Zuzovsky (2009) opined that teachers with only a few years of experience affect the performance of students negatively; while more experienced teachers have a positive impact on students' performance. Gabriel (2005) suggested that metalwork teachers should have at least five years-experience before mastery, stability and expertise as professionals. Zuzovsky further observed that professional experience of a teacher is required for mentoring less experienced teachers to make them effective on the job. Teaching profession recognized employees' years of experience as a relevant factor that enhances knowledge, skills, and productivity (Rice, 2010). Hence, experienced and less experienced metalwork teachers require professional development to be relevant and have job satisfaction.

Job satisfaction is the key ingredient that leads to recognition, income, promotion, and the achievement of goals of any employee. According to Ezeji (2000) job satisfaction is defined as the degree to which, a worker desire material and psychological satisfaction while performing assigned tasks. Nelson and Quick (2009) opined that job satisfaction is a pleasurable or positive emotional state resulting from the appraisal of one's job or experiences. Comm and Mathaisel (2000) observed that a satisfied worker is more likely to be creative, flexible, innovative and loyal. This means that, job satisfaction is a pleasurable disposition of a metalwork teacher that enables him/her carry out daily tasks effectively. Furthermore, Kaplan et al. (1991) identified two components of job satisfaction as: cognitive component and affective component. Kaplan stated that the cognitive component concerns with the thoughts and belief about the job such as; recognition, health and pay. The affective component refers to the feelings generated from the job such as; positive emotions towards work and pleasant working environment. Furthermore, Kaplan agreed that job satisfaction is one of the factors required for development of quality workers; hence disgruntled metalwork teachers who are not satisfied with teaching metalwork will not be committed to the job.

Teaching of metalwork in technical colleges needs highly committed and performing teachers to meet set goals and standards. Munchisky (2000) defined performance as a combination of teacher's behaviour to his job. Motowildlo (2003) opined that performance is recorded in a teacher's behaviour and the behavioural outcome, which is vital for school success. Furthermore, Motowildo observed that performance includes the task performance and contextual performance. Motowildo stated that the task performance is concerned with procedural and declarative knowledge, ability, and experience and technical tasks involved in the job, while the contextual performance deals with activities that support the organizational and social environment. In the context of this study, job performance is result oriented behaviour of a satisfied metalwork teacher. Performing and experienced metalwork teachers are valuable assets to achievement of the goal of technical colleges in general and metalwork programme in particular; hence the need to ensure job satisfaction of this category of teachers.

Metalwork teachers in technical colleges are expected to inculcate sound knowledge and skills to the students, to make them relevant in the world of work. This would require experienced, committed and dedicated metalwork teachers who possess the required skills and theoretical concepts needed for technological advancement. Unfortunately, the achievement of this feat appears to be threatened by continuous shortage of experienced metalwork teachers in North- West, Nigeria, as a result of job dissatisfaction and attrition which has continues to threaten performance among the teachers. Such that even some of the newly employed teachers leave the job after only a few years, thereby compounding the attrition rate of technical teachers in technical colleges.

In Nigeria, teachers' attrition seems to vary in respect to geographical zone. Statistics has shown that Southern zone of Nigeria with more educated states, records minimal attrition rate of about 10-15% compared to the Northern zone where almost all the states are less educationally developed with about 15-20% rate of teacher attrition (Ekundayo, 2010). In support of this, Wadiya (2014) said that attrition seems to be common among Technical and Vocational Education (TVET) teachers in North-Western states of Nigeria, due to job dissatisfaction which has affected their performance to a large extent. In most cases, the technical (metalwork and other trades) teachers withdraw without replacement; leaving their places of work vacant. Research findings have shown that teachers are almost always in short supply in technical colleges and secondary schools and their turnover is high; because they tend to leave the teaching profession as soon as more attractive jobs become available in government, politics or private enterprise (Nwadiani, 1995; Aghenta, 2001). Supporting this argument, Walker (2003) reported that many new technical teachers are fatigued to the point of exhaustion during their first year of teaching; such that excessive workload and poor remuneration are driving dissatisfied teachers away and deterring new recruits.

The most troublesome component of turn-over in schools and technical colleges is teachers' exit or attrition. A survey conducted by Nigerian Union of Teachers (NUT) leadership group in March (2016) spotted crisis in teacher recruitment; nearly three quarter (73%) of school leaders were experiencing difficulties in recruiting teachers, with (61 %) agreed that the situation had gotten worse and (42%) worst. NUT explained that the crisis in teacher recruitment means that while schools are struggling to fill vacancies, large numbers of learners are enrolling and being taught by few teachers who decided to remain on the job; may be for lack of not securing another job. Consequently, it is expected that excess teaching

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workload on metalwork teachers due to acute shortage of manpower may affect the teachers' opportunity to teach and be effective in technical colleges. In addition, Darling-Hammond (2003) suggested that some of the challenges facing new teachers are low salaries, poor working conditions, minimal teacher preparation, and lack of support from colleagues and administrative staff. Research conducted by Walker (2003) agreed with Darling-Hammond, the author suggested that new teachers leave the profession because of society's attitudes toward teachers, inexperience, incompetence, job dissatisfaction, financial issues, time, workloads, and lack of support. This situation can frustrate the new metalwork teachers and causes many of them to leave the profession after only a few years (Nugent & Faucette, 2004).

The preceding researches depict the situation experienced by metalwork teachers in technical colleges in North-West, Nigeria; and revealed that there is an important link between a teacher's sense of being effective, and satisfaction with work (Abdulhamid, 2005). Furthermore, Abdulhamid observed that newly recruited metalwork teachers will stay in technical colleges if they receive collegial support and reasonable duties and workloads are assigned to them. Worried by this situation, Uwaifo (2010) proposed continuous staff development for metalwork teachers to improve experience, performance, and their satisfaction in technical colleges. In addition, Uwaifo advised that deliberate and sincere effort Should be made to retain quality metalwork teachers to ensure continuity and effectiveness. In order to close the gap, this researcher has identified mentoring programme to produce behaviour changes in metalwork teachers on job satisfaction, and performance in technical colleges. Hence, this study investigated the perceived impact of mentoring programme on job satisfaction, and performance of metalwork teachers in technical colleges in North-West, Nigeria.

Purpose of the Study

The general purpose of this study was to investigate the perceived impact of mentoring programme on job satisfaction, and performance of metalwork teachers in technical colleges in North-West, Nigeria. Specifically, the study determined that:

1. There is no significant perceived impact of mentoring programme on job performance between metal work teachers exposed to mentoring programme and those not exposed to the programme in technical colleges.
2. There is no significant perceived impact of mentoring programme on job satisfaction between metal work teachers exposed to mentoring programme and those not exposed to the programme in technical colleges.
3. There is no significant influence of gender in mentoring programme on job satisfaction, and performance between metal work teachers exposed to mentoring programme and those not exposed to the programme in technical colleges.

Method

Design of the Study

The study adopted a quasi-experimental research design that spread through 15 weeks. Specifically, the pre-test, post-test, experimental (non-equivalent) control group was employed in this study, such that there was an experimental group and a control group. Both groups were pre-tested and post-tested. However, the experimental group received the treatment (planned and formal mentoring) that adopted the stages of Kram's model, while the control group received an alternative treatment (unplanned and non-formal mentoring) that did not apply the basic premise of the stages of Kram's model.

Area of the Study

The study was conducted in North-West, Nigeria, which comprised of seven states. The states are Kebbi, Sokoto, Zamfara, Katsina, Kano, Jigawa and Kaduna. There are both federal and state-owned technical colleges that offer vocational education programme with metalwork trades as option or area of specialization in these states; and it is expected that teachers of metalwork trades in these technical colleges, are experienced and specialized in their area.

Population for the Study

The population for this study was 152 less' experienced metalwork teachers. This comprised of metalwork teachers in the 22 federal and state-owned technical colleges in North-West, Nigeria; that offer metalwork trades as area of specialization. The population comprised of 16 less experienced metalwork

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teachers in two Federal Science Technical Colleges (FSTCs) and 136 less experienced metalwork teachers in 20 Government Technical Colleges (GTCs). This is determined by number of years in service (less than 5 years) by individual teachers (Zuzosky, 2003; Gabriel, 2005; Rice, 2010) and nomination by the schools' Principals. The number of teachers was obtained from Principals of the selected technical colleges in this study. This included NTC 1, NTC 11 and NTC 111 teachers of metalwork trade in all the FSTCs and GTCs in North-Western states of Nigeria. The choice of these three levels was because; metalwork trade is taught in NTC I, 11 and 111 in some of the technical colleges by less experienced male and female metalwork teachers who are in need of relevant skills and professional development support to be able to perform effectively. Hence, these teachers were trained and mentored in the theoretical concepts, pedagogical knowledge and manipulative skills of metalwork technology with the TMPG to retain them, and by so doing, it was expected that they would perform.

Sample and Sampling Technique

The sample of this study was 35 less experienced metalwork teachers; which comprised of27 male and 8 female teachers drawn from four technical colleges in North-West, Nigeria. The researcher selected metalwork teachers from the four technical colleges; two technical colleges each for experimental and control groups. The selected technical colleges consist of: one federal and one state owned technical colleges for experimental group, and the other one federal and one state owned technical colleges for the control group. The sample was made up of 16 teachers in the experimental group and 19 teachers in the control group. The experimental group had seven teachers from FSTC, Kafachan; which comprised of two teachers from NTC 1, three from NTC 11, and two from NTC 111 and nine teachers from GTC, Funtua; which comprised of three teachers from NTC 1, three from NTC 11, and three from NTC 111. Similarly, the control group had nine teachers from FSTC, Zuru; which comprised of four teachers from NTC 1, three from NTC 11, and two from NTC 111 and 10 teachers from GTC, Binji; which comprised of four teachers from NTC 1, three from NTC 11, and three from NTC 111.

Purposive sampling technique was employed in this study. The choice of purposive sampling technique in this study was because; some of the technical colleges did not have a particular functional workshop setting where these categories of metalwork teachers could undertake practical or workshop practice. Furthermore, the teachers were studied in their intact classes during the programme. Thus, the researcher purposively selected the technical colleges that have functional workshop setting for practice so that effective training could take place during this study.

Instrument for Data Collection

The instrument used for data collection for this study was the structured questionnaire. The scales in the questionnaire were adapted and used to measure the major constructs in the study. The level of adaptation, involved the use of metalwork teacher to represent job; as an occupation in the questionnaire items. The questionnaire was titled Career-Mentoring and Behaviour Measures (CMBM). The questionnaire had four sections (A, B, & C). Section A was the demographic detail, which was used to measure the demographic characteristics of the teachers regarding their sex, teaching experience and academic qualification. Section B was Spector's (1994) Job Satisfaction Survey, which was used to measure the perceived job satisfaction of metalwork teachers regarding pay, promotion, supervision, fringe benefits, rewards, work conditions, relationship with colleagues, nature of work, and communication respectively. Section C was Goodman and Svyanteks' (1999) Job Performance Scale, which was used to measure the perceived job performance of metalwork teachers regarding contextual performance, and tasks performance. There were no changes made in the item's statements of the adapted scales for this study; however, as a means of adapting the scales, metalwork teacher was added to the items in each subsection of section B, and C to reflect the metalwork teacher's job constructs. The structures of the adapted scales are explained as follows:

Section B contained 36 items on job satisfaction of teachers. Four items each were used to assess pay, promotion, rewards, supervision, fringe benefits, and nature of work, work conditions, communication, and relationship with colleagues. Section C contained 25 items on job performance of teachers. Sixteen of these items assessed contextual performance, while nine items assessed tasks performance. All the 61 items of the questionnaire were rated on a five-point Likert scale of strongly agreed (1), agreed (2), undecided (3), disagreed (4), and strongly disagreed (5).

In addition, the Teacher Mentoring Programme Guide (TMPG) for metalwork teachers was used; though not as an instrument for data collection, but to determine the perceived impact of mentoring

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programme on job satisfaction, and performance. TMPG for teachers was adapted from a developed teacher mentoring programme guide by American Institute of Research (2015). The level of adaptation, involved inserting metalwork teacher to complement the title. In addition, metalwork was added to the statement on career advancement and activities on the guide. Furthermore, metalwork teacher was used to replace mentor and mentee where necessary and manipulative skill in metalwork was added to the mentoring content learnt by mentees. The TMPG for metalwork teachers consisted of three sections: Section A was on the goal of the mentoring programme. Section B contained the structure of the programme; which describes the mentoring objectives, content, requirements, mentor activity, mentee activity, evaluation procedures and modeling required at every stage of the intervention. Section C contained the Mentors Feedback Sheet (MFS), Mentees Reflection Sheet (MRS) and the Mentors' checklist.

Validation of the Instruments

The questionnaire and (TMPG) for metalwork teachers were subjected to face validation by three experts. These were made up of two experts from the Department of Industrial Technical Education, University of Nigeria, Nsukka and one from the Department of Technical and Vocational Education, Kaduna Polytechnic. The experts were requested to determine the suitability of the questionnaire as instrument for data collection and TMPG as reference material for trainers during intervention. The experts were provided with the original scales that were adapted to enable them to authenticate and suggest the level of adaptations made in this study. Thus, the experts were able to make sound judgments, suggestions and corrections on the scales where necessary. The corrections and suggestions made by the experts on the questionnaire included introductory statement to items in each of the sections of the questionnaire and replacement of career with metalwork teacher in each subsection. Similarly, corrections and suggestions made on the TMPG included the addition of mentoring goals/objectives and evaluation procedures for each stage of the mentoring programme, clear delineation of steps in carrying out the specific objectives under each task, and specification of mentor and mentee activity. The experts' observation and suggestions made on the questionnaire and TMPG were incorporated in the final draft to improve their quality.

Reliability of the Instrument

The internal consistency of the questionnaire was determined by using Cronbach's alpha method. The questionnaire was administered once to 10 less experienced metalwork teachers (mentees) from Government Technical College, Malali; and Government Technical College, Ingawa. The choice of these teachers for establishing the reliability of this study was based on the fact that they did not form part of the sample, but were part of the population of the study. Their responses were collated and analyzed using Cronbach's alpha formula. The reliability coefficients (alpha values) were 0.78 for job satisfaction, 0.95 for job performance. The overall reliability coefficient of the questionnaire was 0.93.

Intervention/Experimental Procedure

Ten mentors who served as research assistants were selected by the researcher to assist in mentoring the less experienced metalwork teachers. The researcher ensured that each of the mentors had a B.Ed or B.Sc.Ed degree in metalwork with above 5 years post qualification experience, good supervisory, communication, interpersonal and organizational skills, and recommended by principals of technical colleges in this study. This step was necessary to ensure that the mentors were knowledgeable in the subject matter and professionally qualified for the mentoring programme and to ensure homogeneity in their level of operation. The trainers (mentors) were given detail explanations by the researcher on the use of TMPG and the questionnaire. The presentation procedure for the trainers in experimental group was formally carried out in line with the framework of TMPG but informally done without the framework of TMPG for the trainers in the control group. The researcher demonstrated in each of these cases how to use the TMPG and questionnaire and requested the participating metalwork teachers (mentors) to ask questions for clarification where necessary. The exercise was repeated until all participating metalwork teachers (trainers) showed capability of handling the instruments. The researcher gave each of the mentors a copy of the TMPG which was used as a guide or reference material during training. The mentors were requested to have at least two contact sessions per week with the mentees throughout the intervention period. Similarly, the mentees in the experimenta1 groups were briefed on their conduct but no such briefing for the mentees in the control groups. In addition, the mentees in the experimental groups were requested to fill the Needs Assessment Form (NAP) for metalwork teachers. NAF was developed by the

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researcher based on extensive literature search to assist the researcher in identifying the training needs of mentees before intervention began, and matched them with mentors who could help. Mentees in the experimental groups were trained (planned and formal) with the TMPG while Mentees in the control groups were trained in the conventional way (unplanned and non-formal), without the TMPG, although they could ask questions or seek for assistance from any experienced metalwork teacher, but nobody was specifically assigned to mentor them. The training period for mentees, took place at the last two periods of the schools' daily time-table. The researcher and the RAs ensured that the space on the mentees time-table was well utilized to ensure adequate use of time. Thus, the days of the training were such that the mentees were free from other activities at least 30minutes before training. The activity was smooth and without interference because, the researcher made adequate negotiations with the Principals and took permission from the Heads of departments of these teachers. The phases of the intervention in the experimenta1 groups were guided by Kram's model for mentoring as contained in the TMPG as follows: The first phase was the initiation stage; followed by the cultivation stage; the separation stage; and redefinition stage (last phase).

Initiation Stage: The first mentoring activity at this stage was selection of mentors. The selection process was done by the researcher based on the recommendations of the school principals. This was followed by training of the mentors on the use of TMPG. The selected mentors studied the mentors' checklist provided by the researcher to prepare them for the exercise. The mentees were required to fill the NAF to facilitate their matching with suitable mentors for friendship, compatibility and to establish trust before intervention began. The researcher used the mentors to conduct a pre-test for the mentees at time (TI) a week, before training began.

Cultivation stage: The Career-related function emerges first at this stage when the mentor guides the mentee on how to work effectively and efficiently. This is followed by the emergence of the psychosocial function after the mentor and mentee have established interpersonal bond. Mentors trained mentees on career development aspects of the mentoring programme at this stage; such as the theoretical concepts, pedagogical knowledge and manipulative skills. The theoretical concepts of the training included technical procedures, administrative procedures, working conditions, operation and motion sequences, and materials, technical drawing, materials technology, introduction to maintenance and workshop safety. Pedagogical skills included planning for teaching, teaching strategies, and classroom management, content knowledge and delivery, questioning skills development, problem solving skills, and provision of information and guidance while the manipulative skills required by metalwork teachers included skill in use of workshops equipment and machines, welding, cutting, casting, and modem methods of teaching, which might affect the performance of the work. Furthermore, mentees were trained by the mentors on the mentoring contents using the TMPG as a guide or reference material. The mentors modeled on mentoring contents taught while mentees observed and asked questions. The mentees were evaluated at the end of every activity by the mentors with the MFS while the mentees completed the MRS after teaching metalwork lesson for self-assessment.

*Separation stage**:*** This phase of the mentoring relationship ended when mentors and mentees realized that the relationship was no longer needed. The researcher conducted a posttest at time (T2) for the mentees at this stage two weeks after the intervention, using the coded questionnaire to determine the degree of change in behavior after intervention.

Redefinition stage: This phase of mentoring relationship between mentors and mentees developed more of friendship which did not depend on obvious support and guidance. The stage marked the end of mentoring programme. Mentors exchanged pleasantries with mentees and both of them decided whether to continue the relationship on personal basis or to end it. Hence, these stages were applied in this study to train the mentees for the mentoring programme on job satisfaction, and performance.

Method of Data Collection

The researcher subjected both experimental and control groups to pre-testing (Tl) before treatment and post-testing (T2) after treatment. The questionnaire was administered two times (TI and T2) to the teachers. The first administration of the questionnaire TI took place one week before the intervention began. This was followed by the treatment with TMPG by the trainers (mentors) which lasted for 12 weeks. The second administration (T2) was carried out two weeks after the intervention. The questionnaire used for the first administration (Tl) was assigned code that facilitated matching of the

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retrieved questionnaire at (T2) of administration. The questionnaire administration and retrieval involved the services of four trained Research Assistants (RAs), while the Researcher coordinated the groups. This has helped to achieve a very high rate of administration and return of instrument at T1 and T2 respectively.

Method of Data Analysis

The data analysis was conducted with Statistical Package for Social Science (SPSS version 22.0). The statistical tools applied for the test of hypotheses were the Analysis of Covariance CANCOV A) and Multivariate Analysis of Variance (MANOV A). ANCOVA was used to test hypotheses 1 and 2 in order to compare a variable in two or more (Experimental and Control) groups, taking into consideration the variability of other variables; while MANOVA was used to test hypotheses 3; which helped determine the distinction of the multiple dependent variables in the study. The hypothesis of no significant difference was accepted for any item whose (P) value is greater than 0.05. The hypothesis of no significant difference was rejected for any item whose probability (P) value was less than or equal to 0.05.

Results

Table 1: Summary of ANCOV A on the perceived impact of mentoring programme on job performance

Source	Type III Sum of Squares	Df	Means Square	F	Sig.	Partial Eta Square
Corrected Model	1.2388[a]	2	.619	4.789	.015	.230
Intercept	2.900	1	2.900	22.447	.000	.412
JP	.551	1	.551	4.263	.047	.118
Group	1.019	1	1.019	7.889	.008	.198
Error	4.134	32	.129			
Total	392.285	35				
Corrected Total	5.372	34				

Note: JP- Job Performance, Df- Degree of freedom

Table 1 shows the ANCOV A test for the mean perceived impact of mentoring programme on job performance of metalwork teachers. The Table shows that the perceived impact of mentoring programme on job performance was significant (F (1, 32) = 7.889, P = .008 < .05, η^2_p = .198). Although the effect is significant, it is not relatively a large effect, with respect to the value of the partial eta square. Hence, the null hypothesis is rejected. This implies that there is significant perceived impact of mentoring programme on job performance, between metalwork teachers exposed to the mentoring programme and those not exposed to the programme.

Table 2: Summary of ANCOV A on the perceived impact of mentoring programme on job satisfaction

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Square
Corrected Model	2.774[a]	2	1.387	10.419	.000	.394
Intercept	.760	1	.760	5.705	.023	.151
Pretest	1.695	1	1.695	12.730	.001	.285
Group posttest	.801	1	.801	6.018	.020	.158
Error	4.261	32	.133			
Total	339	.032	35			
Corrected Total	7.035	34				

Note: Df- Degree of freedom

Table 2 shows the ANCOV A test for the mean perceived impact of mentoring programme on job satisfaction of metalwork teachers. The Table shows that the perceived impact of mentoring programme on job satisfaction was significant (F (1, 32) = 6.018, p = .020 < .05, η^2_p = .158). Although the effect is significant, it is not relatively a large effect, with respect to the value of the partial eta square. Hence, the null hypothesis is rejected. Therefore, there is significant perceived impact of mentoring progran1me on job satisfaction, between metalwork teachers exposed to the mentoring programme and those not exposed to the programme.

Table 3: Summary of MANOV A on the influence of gender in mentoring programme on job performance, and satisfaction.

Source	DV	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial eta Square
Corrected Model	JP	.070[a]	1	.070	.438	.513	.013
	JS	.076[b]	1	.076	.362	.551	.011
Intercept	JP	268.157	1	268.157	1669.170	.000	.981
	JS	229.589	1	229.589	1088.784	.000	.971
Gender	JP	.070	1	.070	.438	.513	.013
	JS	.076	1	.076	.362	.551	.011
Error	JP	5.302	33	.161			
	JS	6.959	33	.211			
Wilk's Lambda					.834	.486	.990

Note: DV - Dependent Variable, JP - Job Performance, JS - Job Satisfaction

Table 3 shows the MANOVA test for the influence of gender in mentoring programme on job performance, and satisfaction of metalwork teachers. The Table shows that the influence of gender was not significant for job performance (F (1,33) = .438, p = .513 > .05, η^2_p = .013), and satisfaction (F (1, 33) = .362, p = .551 > .05, η^2_p = .011). Similarly, the multivariate test with Wilk's Lambda test (F (1, 33) = .834, P = .456 > .05, η^2_p = .990) was not significant. Thus, the null hypothesis is upheld. This implies that there is no significant influence of gender in mentoring programme on job performance, and satisfaction between metalwork teachers exposed to the mentoring programme and those not exposed to the programme.

Discussions

The discussion is based on the analysis and findings of the hypothesis one which established whether or not teacher mentoring programme had a significant effect on their job performance. The finding revealed that the difference was significant (F (1,32) = 7.889, p = .008 < .05, η^2_p = .198). Thus, the null hypothesis was rejected. This implies that mentoring is effective in changing the metalwork teachers' behaviour towards job performance. This finding is consistent with those of Agunloye (2013) who conducted a study on impact of mentoring programme on faculty staff performance in institution of higher learning in Nigeria and revealed that mentoring programme produced gains in all the three dimensions of performance for the participants in the programme. The finding also agreed with the finding of Achor and Duguryil (2014) who conducted a study on Effectiveness of a teacher mentoring programme in enhancing pre-service chemistry teachers' altitude towards the teaching profession and revealed a significant impact of mentoring programme on attitude to teaching between teachers exposed to the programme and those not exposed to the programme.

Similarly, the findings also revealed that the mentored subjects (experimental group) had higher mean post-test than the control group. This difference was significant (F (1, 32) = 6.018, p = .020 < .05, η^2_p = .158). Thus, the null hypothesis was rejected. This implies that mentoring programme is effective in changing the metalwork teachers' behaviour towards job satisfaction. The findings also agreed with the findings of Starr (2009) who investigated mentors' perspective and level of job satisfaction in Atlanta, Georgia and revealed that mentors are satisfied with their experience with mentoring programme and also revealed that best practice, screening, matching, monitoring and support were the greatest predictors of mentor satisfaction. The findings agreed with the findings of Kim (2010) on the impact of mentoring programme in public sector. The researcher revealed that significant effect of mentoring was found between intrinsic motivation and job satisfaction and that the impact of extrinsic motivation on job was found to vary. In addition, job satisfaction was found to be significantly related to organizational trust, but negatively related to economic benefit.

In addition, the findings of hypothesis four which sought to determine whether or not teacher gender in mentoring programme had a significant effect on their job satisfaction, and performance. The finding showed that the influence was not significant for job performance (F (1, 33) = .438, p = .513 > .05, η^2_p = .013), and not significant for job satisfaction as revealed by MANOVA (F (I, 33) = .362, p = .551 > .05, η^2_p = .011). Similarly, the multivariate test with Wilk's Lambda test (F (1,33)"; .834, p = .456 > .05, η^2_p =

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.990) was not significant. Thus, the null hypothesis is upheld. This implies that there is no significant influence of gender in mentoring programme on job performance, and satisfaction between metalwork teachers exposed to the mentoring programme and those not exposed to the programme. This finding agreed with that of Webber & Rogers, (2018) whose findings revealed similarity between female and male faculty members in some aspects of work satisfaction. The finding shows no significant effect of gender in mentoring programme on job performance, and satisfaction among academicians.

Conclusion

The challenges of adding value in a cost-effective manner is common with any organization including technical colleges. Mentoring is a vital tool that offers immense benefits at minimal cost to the mentor, mentee and the organization. Thus, originations human resource policy on mentoring must embrace holistic approach other than the traditional perspective and should be an integral part of organizations life. The findings of this study had shown that mentoring has posiive impact on mentees competency in teaching and that this also improves when experts' mentors were used. In addition, the study showed positive impact of mentoring programme on mentee satisfaction with their job as it was observed that they approached teaching with ease and related with their colleagues confidently. Moreso, mentored teachers showed evidence of remaining in the job as their fear of losing their job due to incompetence and lack of exposure and experience was overcome by the intervention. Hence, the observed increase in competency level of less experienced metal work teachers after the mentoring programme indicated that the use of the programme for professional development of teachers would mostly produce better results if well implemented and retained.

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