IN-SERVICE TRAINING AS AGENT OF BETTER WORK PERFORMANCE FOR COMPUTER SCIENCE TEACHERS IN OYO FEDERAL CONSTITUENCY, OYO STATE, NIGERIA

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Abstract
The object of this paper is to identify different types of in–service training programs, determine the major factors that necessitate in-service training, identify the benefits of in-service training for computer science teachers, and investigate if in-service training serves as agent of better performance for computer science teachers in Oyo Federal constituency, Oyo State, Nigeria. Questionnaire was used as research instrument to collect the data and percentage, mean and standard deviation were used to analyse the results. Mean scores < 2.50 were rejected and mean scores ≥ 2.50 were accepted. Hypotheses were tested using Z-test at 0.05 level of significance. The result showed that In-service training program improves computer science teachers performance in secondary schools in Oyo State Federal constituency of Oyo State, Nigeria.
Key Words: In-service training, Federal constituency, Performance, Computer science teachers, Agent.

Introduction

Training in any workplace is an ongoing process. Such training can be pre-service training or in-service training. Pre-service training is a collection of several related and unrelated courses and field experiences that a teacher acquires before certification. In-service training is one conducted for a teacher after he has been gainfully employed in an organization whether in the private, public or educational institutions to improve work and organizational performance. Khan, Khan and Khan(2011) captured this succinctly by concluding that in order to improve the organizational performance and the employee performance, training is given to the employee of the organization. In-service training for teachers can be seen as a step towards quality education.

According to Kazim (2011) cited in Amin, Ullah, and Ahmed (2017), training of teachers provides teachers with the knowledge, skill, and ability that are relevant to the professional ecstasy of a teacher. Teacher training molds the personality of a teacher such that their attitudes are reshaped, their habits are reformed and their personality is reconstituted. Training is the imparting of knowledge to an employee on a specific area or skill for the efficient execution of the jobs he is employed to perform, while development is the overall enhancement and growth of employee's skill and abilities through a conscious and unconscious mode of learning. The main purpose of training and development is to

improve

the employee's competencies to perform their jobs better (Kearney 2010, cited in Saidu, Ilelah & Ali, 2019).

Several authors had made efforts to study the effects of in-service training on teachers work performance in Nigeria (Fejoh & Faniran, 2016), (Osamwonyi, 2016), and (Saidu, Ilelah & Ali, 2019). In view of recent developments in Information and Communication Technology (ICT) in education, little research efforts had been made on in-service training of computer science teachers. This study therefore, seeks to evaluate in-service training as an agent of better work performance for Computer Science teachers in secondary schools in Oyo Federal constituency Oyo State, Nigeria.

Objectives of the Study.

The objectives of the study are to:

a) Identify different types of in–service training programs for computer science teachers
b) Determine the major factors that necessitate in-service training of computer Science Teachers.
c) Identifies the benefits of in-service training for computer science teachers' performance.

Research Questions

The following research questions guided this study

1. What are the types of in-service training available for computer science teachers?
2. What are the major factors that necessitate in-service training among computer science teachers?
3. What are the benefits of in-service training on computer science teachers' performance?

Research Hypothesis

H_0 = In-service teachers' training program improves teachers performance.

H_1 = In–service teacher training does not improve teachers performance.

The Significance of the study

The in-service training for teachers is usually a continuous process and it runs throughout a teachers' career. The training equips the teachers with new teaching learning methods and skills and improves teachers' performance.

Related Studies

Several authors have worked on related studies notable among them are the following:

Halawi and Haydar (2018), studied the effects of training on the performance of employees from two Lebanese companies which relied on improved capability, skills, and knowledge of talented employees to achieve positive performance. Despite employing already experienced employees, human resource managers still design training and development programs to make employees learn and acquire skills, ability, and knowledge about their responsibilities. This is done with the understanding that employees form the backbone of

organizations. The study collected primary data from a sample of 303 respondents. The researcher visited a sample of respondents from their workstations to administer questionnaires. The findings, however, showed that the two companies from Lebanon design different training programs. The two companies design training programs that focuses on short-term skills and development programs for long-term abilities. Some of the programs include organizing programs outside the workplace, attending workshops, participating in department activities, and watching others. Consequently, training programs benefited employees as well as the two companies. Employees cited that they were able to develop inner satisfaction, received positive evaluation feedback, understood how to achieve a quality output, and developed career beyond classwork. Nevertheless, management noted that they experienced challenges of implementing training programs because of fear to spend more resources, communication, bureaucracy, less support from top-level managers, and failure to have structures. The implications of the findings for practice were highlighted.

Al-Mzary, Al-rifai and Al-Momany (2015), examined the attitudes of administrative leaders and administrative employees concerning the training courses provided, as well as the impact of training on employee job performance at Yarmouk University in Jordan. The study is carried at a Malaysian small and medium enterprise (SME). Findings indicated that training courses are related to the training needs of the employees to a medium degree, and that there are several conditions which determine selecting eligible employees for training. Also, results indicated that there is relationship between effective training and employees' job performance. Based on the results of the study, several recommendations were provided.

Osamwonyi (2016), focused on problems of in-service education of teachers in Nigeria. The researcher concluded that every attention should be devoted to the in-service education of teachers to promote their professional growth and development. Relevant suggestions were put forward to achieve a better staff development programmes aimed at helping teachers to update their knowledge, expertise, skills and competence in the teaching profession.

Fejoh and Faniran (2016), investigated the impact of in-service training and staff development on workers' job performance and optimal productivity in public secondary schools in Osun State, Nigeria. The study used the ex-post-facto research design. Three research questions and three hypotheses were generated and tested using questionnaire items adapted from Raja et al (2014) but subjected to manipulation by the researchers which contained closed ended type of questionnaire based on the research questions and hypotheses and was structured on a four points Likert scale. The instrument was administered to a purposely selected population of 152 respondents while 134 questionnaires were returned. Data generated were analyzed using Analysis of Variance (ANOVA) and

Multiple Regression Analysis to test the hypotheses at 0.05 level of significance. The findings showed that in-service training and staff development had insignificant combined effects but significant relative effects on workers' optimal job productivity. The study therefore recommended that schools should design proper and functioning in-service training and staff development programmes for their workers to boost their morale, enhance their performance and in addition ensure that workers training are conducted frequently to ensure they cope with changing technological environment and organizational climate in schools.

Dimitris, Asimaki and Dimitris (2018), investigated the prevailing forms of in-service training, the detection of the dominant pedagogical discourse they promote as well as their contribution to the shaping of the teacher's individual theory of education (I.T.E.). The research was conducted using semi-structured interviews with a sample of 11 teachers who work in schools in Patras and the data were analysed using B. Bernstein's theoretical framework. The results of the research revealed that in our case, the predominant form of in-service training is the lecture, while the scientific knowledge provided refers to the content and teaching of cognitive subjects, the diagnosis and handling of learning difficulties and the acquisition of skills in the use of teaching aids. It also became clear that the I.T.E. of the teachers who participated in the research is chiefly shaped by elements of the professional biography of each teacher, in which in-service training does not seem to hold a dominant position.

Alromaihi, Alshomaly and George (2017), identified the factors influencing job satisfaction and the determinants of employee performance, and accordingly reviewing the relationship between them. This study focused on exploring the influence of job satisfaction on employee performance and vice, the influence of employee performance on job satisfaction. The study also examined the nature of the relationship between these two variables. The study revealed the dual direction of the relationship that composes a cycle cause and effect relationship, so satisfaction leads to performance and performance leads to satisfaction through number of mediating factors. The researchers concluded that successful organizations are those who apply periodic satisfaction and performance measurement tests to track the level of these important variables and set the corrective actions.

Bernardo, Landicho and Jake (2014), aimed to correlate the academic performance and the on-the-job training performance of the students from AB Paralegal Studies in terms of Personal Characteristics, Attitude towards the job, job performance, adherence to company policy and competence. Descriptive-correlation type of research method was utilized in the study. Results showed that the students obtained excellent performance rating in terms of personal characteristics, attitude towards the job, job performance and competence. There is a need to enhance the communication skills of the students through giving them more verbal exercises as teaching and

learning activity as well as giving more case studies to analyze and simulate for better understanding of the subject.

Tahir, Yousafzai, Jan and Hashim(2014), objective was to investigate whether training and development has impact on employees' performance and productivity. This paper is quantitative in nature. Data for the paper have been collected through primary source that are from questionnaires surveys. The data have been checked through statistical software to find the impact of training and development on employees' performance and productivity. There were two variable Training and Development (Independent) and Employees' performance and productivity (Dependant). Eight united banks limited were selected for the study. Eighty questionnaires were distributed for the collection of data. Descriptive statistic tools SPSS were applied on the questionnaire to see the reliability and consistency. Data were analyzed and discussed. The result showed that there was significant relationship between the variables, the Pearson correlation was used in study and Cronbach Alpha for each questionnaire was obtained. Frequency distribution was used to see the individual result of the study.

Saidu, Ilelah and Ali (2019), examined the effect of training in-terms of in-service, on the job training, and conference on employee's performance in terms of effectiveness and efficiency. The studies that used training on employee's performance provide differing results. This study has reviewed previous literatures and conceptualized that training has strong effect on employee's performance. It was recommended that besides in-service training, conference and on job training, and other modes of training should examine their contributions on employee's performance.

Methodology

A descriptive research design of survey method was used to assess in-service training as agent of better work performance for computer science teachers in Oyo Federal Constituency of Oyo State, Nigeria. The instrument was a researcher designed 4-point Likert scales of Strongly Agreed (SA), Agreed (A), Disagreed (D), and Strongly Disagreed (SD). The sample population of the study consists of 120 computer science teachers randomly drawn from twenty four (24) public and private secondary schools in Oyo Federal Constituency of Oyo State. The questionnaires were personally administered to all computer science teachers in the selected schools. 50 responses were received.

Reliability of Instrument

To obtain the reliability of the instrument, 8 copies of the questionnaires were trial-tested by administering them to computer science teachers in 4 public secondary schools that were not part of the main sample size for this study. Afterwards, the reliability of this instrument was established.

Procedures for the Analysis of Data

Data collected from administered questionnaires were subjected to statistical analysis. Frequency, percentage, mean and standard deviation were used to answer the

research questions. Mean scores < 2.50 were rejected and mean scores ≥ 2.50 were accepted. The Hypothesis was tested using Z-test at 0.05 level significance.

Results and Discussion

The results of the data analysed are as presented in the following table

Research question 1: What are the types of in-service training made available for Computer science teachers**?**

Table 1: In-service training made available for Computer Science Teachers

ITEMS	YES	NO
Programming Language proficiency	29(58.0)	21(42.0)
Refresher courses	33(66.0)	17(34.0)
Workshops	35(70.0)	15(30.0)
Conference	28(56.0)	22(44.0)
Study groups	48(96.0)	2(4.0)
Tours of Industrial Organization	3(6.0)	47(94.0)
Seminar	14(28.0)	36(72.0)
Virtual Training	21(42.0)	29(58.0)
Extension lectures for teachers	43(86.0)	7(14.0)

Table 1 presents the percentage responses of computer science teachers on the type of in-service training made available to them. The collected data revealed that programming Language proficiency was 29 (58%), Refresher courses was 33 (66%), workshops was 35 (70%), conference was 28 (56%), was study groups 48 (96%), and extension lectures for teachers was 43 (86%) were types of in-service training made available for computer science teachers. However, 47(94%) indicated that educational tours, 36 (72%) indicated that radio broadcast, and 29 (58%) indicated that television broadcast were not available.

Research Question 2: What are the major factors that necessitate in-service training Among Computer science teachers' performance?

Table 2: Major Factors That Necessitate In-Service Training Among Computer Science Teachers?

	Computer Science Teachers (n=50)		
ITEMS	MEAN(x)	**S.D**	**DECISION**
Emergence of new resources for teaching and learning process	3.08	0.81	Agreed
Update and keeping current in computer Science education	3.09	0.70	Agreed
Changing nature of the learner experience	2.93	0.91	Agreed
Professionalism	3.16	0.99	Agreed
Experience sharing among peers.	3.13	0.95	Agreed
Promotion/ employment retention	2.90	0.95	Agreed
Change in computer science curriculum	3.17	0.80	Agreed
New Technologies	2.92	0.94	Agreed
Grand Mean & S.D	**3.17**	**0.79**	

***x*= mean, < 2.50 = Disagreed, ≥2.50 = Agreed, S.D = standard deviation,**

Table 2 presents mean responses of respondents on factors that necessitate in-service training among computer science teachers. The collected data revealed that emergence of new resources for teaching & learning process (3.08), update and keeping current in computer science education (3.09), changing nature of the learners (2.93), professionalism (3.16), experience sharing among peers (3.13), promotion/ employment retention (2.90), change in computer science curriculum (3.17), and new technologies (2.92) are factors that necessitate in-service training among computer science teacher. The findings confirmed the conclusion of Osamwonyi (2016), that every attention should be devoted to the in-service education of teachers to promote their professional growth and development.

Research question 3: What are the benefits of in-service training on Computer science teachers' performance?

Table 3: Benefits of in-service training of Computer science teachers' performance

	Computer Science Teachers (n=50)		
ITEMS	MEAN(x)	**S.D**	**DECISION**
In-service increases computer science teachers' knowledge in the subject area.	3.13	0.74	Agreed
It improves teachers' skills in the teaching of computer science to learners.	3.16	0.91	Agreed
In-service training enables the teachers to be dynamic and responsive to changing environment.	3.22	0.70	Agreed
In-service training enables the teachers to effectively transfer scientific knowledge to learners through modern methods.	3.13	0.82	Agreed
In-service training updates computer science teacher with changes in curriculum.	3.31	0.68	Agreed
It governs the teacher's teaching progress towards the objectives of educational bodies.	3.13	0.80	Agreed

It equips the teachers with new skills in teaching and learning process.	3.10	0.82	Agreed
It help computer science teachers to be more productive	3.19	0.93	Agreed
Grand Mean & S.D	**3.17**	**0.80**	

***x* = mean, < 2.50 = Disagreed, ≥2.50 = Agreed , S.D = standard deviation**

Table 3 above shows the mean responses of respondents on the benefits of in-service training on computer science teachers' performance. The collected data interpreted on mean scales revealed that in-service increases computer science teachers' knowledge in the subject area (3.13), it improves teachers skills in the teaching of science to learners (3.16), and it enables the teachers to be dynamic and responsive to changing environment (3.22). Again, in-service training enables the teachers to effectively transfer scientific knowledge to learners through modern methods (3.13), and it updates computer science teachers with curriculum changes (3.31). It also governs the teacher's teaching progress towards the objectives of educational bodies (3.13), and equips the teachers with new skills in teaching and learning process (3.10), it improves computer science teachers' productive capacity (3.19). The result is in line with Fejoh and Faniran (2016) who recommended that schools should design proper and functioning in-service training and staff development programmes for their workers to boost their morale, enhance their performance and in addition ensure that workers training are conducted frequently to ensure they cope with changing technological environment and organizational climate in schools.

Analysis of Hypothesis

Table 4: z-test analysis on the mean responses of computer science teachers on Benefits of in-service training on science teachers' performance

CATEGORIES	X	SD	N	LEV. OF SIG	Z-Cal	Z-CRIT	DECISION
Computer Science Teachers	3.24	0.77	50	0.05	0.87	1.96	ACCEPTED

The result in Table 4 shows that computer science teachers have mean and standard deviation scores of 3.24 and 0.77, at 0.05 level of significance, z-cal value of 0.87 and z-crit value of 1.96. The result shows that the z-cal value is less than z-crit value. Since the z-cal value of 0.87 is less than the z-crit value of 1.96, the null hypothesis is thus accepted. This implies that In-service teachers' training program improves teachers performance.

Conclusion and Recommendation

Training in an establishment is considered a continuous process especially in an era of frequent advancement in technologies. As technology improves, the world is faced with new way of conducting businesses. In this paper the researcher can safely conclude that in this era of frequent advancement in technologies, frequent in-service training of computer science teachers is required to continuously improve on the job performance.

The researcher hereby recommends frequent in-service training of computer science teachers in order to continuously improve their performance on the job and foster educational development of computer science education in secondary schools in Oyo Federal Constituency of Oyo State, Nigeria.

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