INFLUENCE OF TRAINING AND DEVELOPMENT ON JOB PERFORMANCE AMONG NON-ACADEMIC STAFF OF DELTA STATE POLYTECHNIC, OGWASHI-UKU, NIGERIA.

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ABSTRACT

This study examines the influence of training and development on job performance of non-academic staff of Delta State polytechnic, Ogwashi-uku, Nigeria. The design of this study was ex post facto and data collection tool was questionnaire. Ninety-eighty participants drawn with convenience sampling techniques were used for data analysis. The participants consist of 51 (52%) males and 47 (48%) female. Data analysis revealed that among non-academic staff of the polytechnic training and development make significant difference on job performance, \( t(df; 96) = 1.94 < 0.05 \), two tailed, \( \eta^2 0.01 \)), degree of exposure to training and development make no significant difference on job performance, \( t(df; 79 ) = .22 > 0.05 \), two tailed, \( \eta^2 0.0006 \), and type of training and development make no significant difference on job performance, \( t(df; 60.4) = 1.13, > 0.05 \), two tailed, \( \eta^2 0.004 \). It was concluded that training and development has small effect on job performance. Further study should adopt mixed method and examine intervening variables in the relationship.

Keywords: Training and development, on-the-job training, off-the-job training, job performance, and non-academic staff

INTRODUCTION

Training refers to a planned effort by an organization to facilitate employees’ learning of job related competencies, such as knowledge, skills, or behaviors that are critical for successful job performance (Noe, 2010). It comprises the formal procedures that a company utilizes to facilitate learning so that the resultant behavior contributes to the attainment of the company’s goals and objectives (Levy, 2010). The basic foundation for training programs is learning, which refers to a relatively permanent change in behavior and human capabilities that is produced by experience and practice. Learning outcomes could be cognitive, skill-based, and affective (Kraiger, Ford, & Salas, 1993). Training and development is among the few products of human resource practitioners that have received much acceptance from owners, management and members of organizations.
That training is much valued in organizations reflects in the appreciable frequency of job rotation, under study, conferences, seminars and workshops, among others that have become part of many organizations across the globe.

One inclusive criterion for the classification of training is whether the training is on-the-job or off-the-job. On-the-job training (OJT) is a training method in which a person with job experience and skill guides trainees in practicing job skills at the workplace (Noe, Hollenbeck, Gerhart, & Wright, 2011). It involves assigning trainees to jobs and encouraging them to observe and learn from more experienced employees. Examples of on-the-job training include job rotation, coaching, and understudy. On the other hand, off-the-job training is method where the employee is trained at a site away from the actual work environment. Off-the-job training and development approaches include conferences, seminars and workshops. Often training and development are implicitly used interchangeably. However, training focuses on teaching organizational members how to perform their current jobs and helping them acquire the knowledge and skills they need to be effective, while development is a planned growth and expansion of the knowledge and expertise of people beyond the present job requirements. According to Noe, Hollenbeck, Gerhart, and Wright (2011) development is the combination of formal education, job experiences, relationships, and assessment of personality and abilities to help employees prepare for the future of their careers. Conventionally, training is associated with lower-level employees, while higher-level employees are developed.

The value of training is in its outcomes. In the literature, training is well associated with desirable organizational behaviour. As Levy (2010) documented, training programs can lead to increased organizational commitment and job satisfaction, results in increased productivity, decreased absenteeism, and less turnover. However, one well sought organizational variable that is believed to depend much on training is job performance. Performance is the achievement of specific task measured against predetermined or identified standards of accuracy, completeness, cost and speed (Sultama, Irun, Ahmed & Mehmood, 2012). It is employee behaviour or actions that are relevant to the goals of the organization (Campbell, 1990). It is sociable actions, behaviour, and outcomes that employees engage in or bring about that are linked with and contribute to organizational goals (Viswesvaran & Ones, 2000). Although, employee job productivity is often used interchangeable with employee job performance, however the former is a narrower term as it about the ratio of output to input (Sonnentag & Frese, 2002).

Currently, employee job performance is discussed as a four-dimension construct-task, contextual, counterproductive and adaptive. Task performance entails the accomplishment of duties and tasks that are specific in a job description (Murphy, 1989). It is an individual’s proficiency with which he or she performs activities which contribute to the organization’s technical core (Sonnentag & Frese, 2002). It includes work quantity, work quality, and job knowledge. Other labels sometimes used for task performance include job-specific proficiency, technical proficiency or in-role performance (Koopmans, Bernaards, Hildebrandt, Schaufeli, De Vet, & Van der Beek, 2011). Contextual performance refers to individual behaviour that supports the organizational, social and psychological environment in which the technical core must function (Borman & Motowidlo, 1993). Contextual performance includes behaviors such as helping coworkers and making suggestions about how to improve work procedures. Other labels used for contextual performance include extra-role behaviour, pro-social organizational behavior and organizational citizenship behaviour. Counterproductive work behavior refers to employees’ voluntary behavior that violates significant organizational norms and threatens the well-being of the organization, its members, or both (Landy, & Conte, 2013). Such behaviour include dishonest, sabotage and absenteeism. And adaptive performance
refers to the extent to which an individual adapts to changes in a work system or work roles. It includes solving problems creatively, dealing with uncertain or unpredictable work situations, learning new tasks, technologies, and procedures, and adapting to other individuals, cultures, or physical surroundings (Griffin, Neal, & Parker, 2007; Landy, & Conte, 2013). Researches have shown that the separate dimensions related to the general factor of job performance and to each other (Viswesvaran, Schmidt, & Ones, 2005).

**Training/Development and Employee Performance**

The relationship between training/development and employee performance has attracted a number of studies. For instance, Sohail, Ahmad, Iqbal, Haider and Hamad (2014) studied training and development and employee performance among bank workers and observed that training and development, on-the-job training and delivery style have significant and positive relationship with employee performance. Afaq, Yusoff, Khan, Azam, and Thukiman. (2011) examined the relationship between training and performance in hospitality sector and reported a positive relationship between training and all the dimensions of employee performance that include work safety, job preparedness, hotel hygiene, physical maintenance of rooms, interactions with guests, and preparation for serving customers. Falola, Osibangun and. Ojo (2014) studied the effectiveness of training and development on employees’ performance and organization competitiveness in Nigerian banking industry and reported that a strong relationship between the variables. Specifically, the researchers reported that both behavioral (on-the-job) training and cognitive (off-the-job) training techniques enhance employees' capacity, enhances employees efficacy, promote innovation and creativity for competitive advantage and developed employees skills and knowledge for optimal performance. However, how the researchers tested hypotheses with solely descriptive statistics needs explanations. Degraft-Otoo (2012) examined impact of training and development on employees of a polytechnic and observed that training and development had a positive impact on performance of the employees. Ngari (2015) studied the influence of in-service training on employee performance among judiciary staff of lower courts and reported that on-the-job training increasing employees skill levels, productivity and by affects customers satisfaction positively, while off-the-job training enhances transfer of knowledge to actual job, increase interaction of employees, contributes to employee retention, boost morale and affect customer satisfaction positively. On the bases of percentage of respondents it was concluded in the study that on-the-job and off-the-job training influence employee performance and increase their loyalty to the organization.

Ugbomhe, Osagie, and. Egwu (2016) studied the impact of training and development on employee performance in banking sector and reported that appropriate training and development of banking staff can result in efficient performance of their functions. However, there was contradiction with the statistical tools adopted in the study and the interpretation of findings. T-test was adopted in the study, but the researchers interpreted their finding in terms of relationship which is outside the possibility of t-test. Sarboland and Aghayi (2012) investigated the influence of in-service training among employees of two Universities and reported that in-service training has influential effect on employees' personal abilities, their knowledge level, their professional knowledge, and their promotion. Although, the above finding were observed in the study, but the statistical test adopted was inappropriate for the hypotheses. In fact, while the hypotheses were about relationship (e. g- hypothesis 1 “there is a meaningful relationship between in-service training and increasing the individual ability of employees”) t-test was adopted. It is abundant in the literature that t-test, test for difference in means and does not test for relationship. Therefore, the appropriate statistic for the study would have been Pearson
Moment Correlation Coefficient as data were collected at interval level, and assuming that other assumptions of the test were met. Salomi and Rotimi (2013) examined implications of training and development programmes on accountants’ productivity in business organizations with 60 participants. Training type examined was comprehensive and it include induction, foundation, refresher, adhoc or regularly schedule, career or development in-service training and staff development, preserves, in-house, off-the-job pupillage, workshop, seminars and conferences. Data analysis revealed that, on the whole training contributes to the productivity of the accountants.

Statement of the Problem
Evident in the literature, much study has been done on the influence of training and development on job performance, and the dominant finding is that training and development positively affects job performance. However, two feature of the literature necessitated the present study. First, much of the study on training and job performance were case studies. And because a single case study does not enable generalization of result, several case studies on the influence of training on job performance are needed to accumulate enough result that can generalize. Second, much of the studies on the influence of training and development on job performance were analyzed only at composite level. Specifically, there is dearth of study that compare type of training (on-the-job and off-the-job) on job performance. Consequently, this study examined the influence of training and development on job performance at both composite and dimensional levels.

Hypotheses
1 Non-academic staff of Delta State Polytechnic, Ogwashi-uku that had some exposure to training and development will report significant better job performance than those that had no exposure
2 Non-academic staff of Delta State Polytechnic, Ogwashi-uku that scored high on exposure to training and development will report significant better job performance than those that scored low
3 Non-academic staff of Delta State Polytechnic, Ogwashi-uku that scored high on exposure to on-the-job training and development and those that scored high on exposure to off-the-job training and development will differ significantly in job performance.

METHOD
Participants
Ninety-eight non-academic staff of the polytechnic provided the data analyzed. This sample size is representative as it is more than 10% of the non-academic staff of the institution. Again, the sample size is within the range that is common in the literature (e.g. Degraft-Otoo, 2012; Sarboland & Aghayi, 2012; Ugbomhe, Osagie, & Egwu, 2016). The participants consist of 51 (52%) males and 47 (48%) female, 14 (15%) post primary certificate, 67 (71%) Ordinary Diploma/National Diploma/Bachelor’s Degree and 13 (14%) Master’s degree holders.

Instrument
Self-report questionnaire was adopted. Section “A” of the questionnaire consists of items on biographic variables (sex, marital status, designation, and highest level of education). Section “B” consists of items on job performance. The adopted scale for this variable was
developed by Goodman and Svyantek (1999). The scale is made up of 25 items with two parts. The first part of the scale consists of 16 items on contextual performance (Altruism and Conscientiousness). Altruism has seven items, while conscientiousness has nine items. A sample item on altruism is “I help others when their work load increases”. Sample item on conscientiousness is “I do not take unnecessary time off work”. The second part of the scale consists of nine items on tasks performance. Sample item on task performance is “I demonstrate expertise in all job-related tasks”. Four point-Likert method of summated rating scale was adopted. The response scores ranged from 1—strongly disagree, 2—disagree, 3—agree, and 4—strongly agree. Four-point rating scale has been noted to give sufficient discrimination and is easily understood by survey respondents. Goodman and Svyantek (1999) scale on job performance has been widely reported to have satisfactory psychometric properties (Arnold, & Matthijs, 2010; Yusoff, Khan & Azam, 2013). Specifically, Yusoff, Ali and khan (2014) observed Cronbach’s Alpha of .77 and item total correlation of .70 on the scale. Similarly, Soran, Balkanb, and Serin (2014) reported .81 and .83 Cronbach’s Alpha coefficient for the two dimensions of the scale. And for the present study a Cronbach’s Alpha of .66 and .76 were observed for consciousness and task dimensions respectively. Section ‘C” of the questionnaire consists of items that assessed the independent variable, i.e. training and development. Items in this section include those that assessed how often the participants received training in the Institution, whether they have had training for the past three years, and how many times for the past three years they have had some types of on-the-job and off-the-job training.

Procedure
Approval was obtained from the Management of the Polytechnic before the questionnaires were distributed to the participants. Distribution of the questionnaires was majorly done by two staff members of the Polytechnic who were colleagues of this researcher. The two persons received some training on how to go about with distribution of the questionnaire. Non-random sampling technique (convenience sampling) was adopted in the distribution of the questionnaires. One hundred and fifty questionnaires were distributed; however 116 were retrieved after an interval of three weeks. Off the total number of questionnaires returned, 98 were used in data analysis as 18 were unusable due to errors such as inappropriate filling.

Design and Statistics
A cross sectional research design was adopted as data were collected at one point in time. The adopted inferential statistics was unrelated t-test. The statistical tools test for difference, making it appropriate for the research hypotheses. The test is also satisfactory as each of the hypotheses compared two means. T-test is a parametric statistics; therefore a number of assumptions for its usage were observed. For instance, the requirement of interval scale was met with the adoption of 4-point Likert scaling format. Data from individual respondent was independent of each other. This means that the score of a participant did not affect the score of another participant in the data set. The independent variable was measured categorically and at two levels (e.g. exposure and no exposure, high and low). Data were analyzed with Statistical Package for the Social Sciences (SPSS) version 19. As the F–ratio results from Levine tests of equality of variance for hypotheses 1 and 2 were not significant at 0.05, “equal variance assumed” statistics were adopted from the SPSS outputs. As the F–ratio results from Levine test of equality of variance for hypotheses 3 was significant at 0.05, “equal variance not assumed” statistics were adopted from the SPSS outputs (Hinton, Brownlow, McMurray
& Cozens, 2004). Ellis’s (2010) recommended method for calculating effect size (eta squared) was adopted.

**RESULTS**

The participant report of job performance is moderate. On a four-point Likert scale format, the mean score on job performance for employees who had some exposure to training and development was 3.19 (sd. 54), while the mean score of participant who had no exposure to training and development was 2.92 (sd .04). Descriptive analysis on the statement that assessed how satisfied the employees were with the available training and development opportunities in the Institution revealed that 32% strongly agreed, 41% agreed, 27% disagree and 16% strongly disagreed. Descriptive analysis on the item that assessed how often training and development were carried out in the Institution revealed that 28% reported regularly, 27 reported occasionally and 45% reported rarely.

Hypothesis 1

Independent t-test (table 1) shows that there was significant difference in the job performance of the polytechnic non-academic staff members that had no exposure and those that had some exposure to training and development, t(df; 96)=1.94 <0.05, two tailed, eta squared 0.01). Therefore, the hypothesis that non-academic staff of Delta State Polytechnic, Ogwashi-uku who had some exposure to training and development will report significant better job performance than those who had no exposure was supported. The mean difference for the two groups was 0.26. However, dimensional analysis revealed significant better performance between the two groups only in contextual performance. Obtained effect size (eta squared) statistic was .01. Effect size of .01 is a very small one, and it implies that training and development has trivial effect on job performance among the staff members.

<table>
<thead>
<tr>
<th>T&amp;D</th>
<th>n</th>
<th>m</th>
<th>Sd</th>
<th>df</th>
<th>t</th>
<th>eta²</th>
<th>p</th>
<th>95%CI</th>
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<tr>
<td>No Exposure</td>
<td>12</td>
<td>2.92</td>
<td>0.43</td>
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<td></td>
<td>96</td>
<td>1.94</td>
<td>0.01</td>
<td>.05</td>
<td>-.0053-.53</td>
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<tr>
<td>Some Exposure</td>
<td>86</td>
<td>3.18</td>
<td>0.54</td>
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Hypothesis 2

Independent t-test (table 2) shows that there was no significant difference in the job performance of the polytechnic non-academic staff members that scored high and those that scored low on exposure to training and development, t(df; 79 )= .22 >0.05, two tailed,eta² 0.0006). Therefore, the hypothesis that non-academic staff of Delta State Polytechnic, Ogwashi-uku who scored high on exposure to training and development will report significant better job performance than those who scored low was not supported. The mean difference for the two groups was 0.02. Result of same direction was obtained for both contextual and tasks performance dimensions. Obtained effect size (eta squared) statistic
was .0006. Effect size of .0006 is a null one, and it implies that training and development has no impact on job performance among the staff members.

Table 2: Difference in Job Performance of the Non-academic Staff Members that Scored High and Those that Scored Low on Exposure to Training and Development

<table>
<thead>
<tr>
<th>T&amp;D</th>
<th>n</th>
<th>m</th>
<th>sd</th>
<th>df</th>
<th>t</th>
<th>eta^2</th>
<th>p</th>
<th>95%CI Lower</th>
<th>95%CI Upper</th>
</tr>
</thead>
<tbody>
<tr>
<td>High exposure</td>
<td>54</td>
<td>3.19</td>
<td>0.48</td>
<td></td>
<td>79</td>
<td>.0006</td>
<td>.82</td>
<td>-.19</td>
<td>.24</td>
</tr>
<tr>
<td>Low exposure</td>
<td>27</td>
<td>3.17</td>
<td>0.42</td>
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Hypothesis 3:
Independent t-test (table 3) shows that there was no significant difference in the job performance of the polytechnic non-academic staff members that scored high on exposure to both on-the-job and off-the-job training and development, \( t(df; 60.4) = 1.13 > 0.05 \), two tailed, \( \eta^2 = 0.01 \). Therefore, the hypothesis that job performance of non-academic staff members of Delta State Polytechnic, Ogwashi-uku that scored high on exposure to both on-the-job and off-the-job training and development will differ significantly was not supported. The mean difference for the two groups was 0.13. Result of similar direction was obtained for both contextual and tasks performance dimensions. Obtained effect size (\( \eta^2 \)) statistic was .01. Effect size of .01 a small one, and it implies that high in exposure to both on-the-job and off-the-job training and development has small effect on job performance.

Table 3: Difference in Job Performance of the Non-academic Staff Members Who Scored High on Exposure to both on-the-job and off-the-Job Training and Development.

<table>
<thead>
<tr>
<th>T&amp;D</th>
<th>n</th>
<th>m</th>
<th>sd</th>
<th>df</th>
<th>t</th>
<th>eta^2</th>
<th>p</th>
<th>95%CI Lower</th>
<th>95%CI Upper</th>
</tr>
</thead>
<tbody>
<tr>
<td>High (on-the-job) exposure</td>
<td>35</td>
<td>3.15</td>
<td>0.37</td>
<td></td>
<td>60.4</td>
<td>1.13</td>
<td>0.01</td>
<td>-.09</td>
<td>.36</td>
</tr>
<tr>
<td>High (off-the-job) Exposure</td>
<td>29</td>
<td>3.28</td>
<td>0.52</td>
<td></td>
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DISCUSSION
This study examined the influence of training and development on job performance among non-academic staff of Delta State Polytechnic, Ogwashi-uku, Nigeria. Three hypotheses were tested. The hypothesis that non-academic staff of Delta State Polytechnic, Ogwashi-uku that had some exposure to training and development will report significant better job performance than those who had no exposure was supported. This result is in congruent with the extant literature. For instance, Sohail, Ahmad, Iqbal, Haider and Hamad (2014) studied training and development and employee performance among bank workers observed that training and development has significant and positive effect on employee performance. Afaq, Yusoff, Khan, Azam and Thukiman (2011) examined the relationship between training and performance in hospitality sector and reported a positive relationship between training and all the dimensions of employee performance that include work safety, job preparedness, hotel hygiene, physical maintenance of rooms, interactions with guests, and preparation for serving customers.

A plausible explanation for the positive effect of training and development on job performance is that training and development equip employees with the skill, knowledge and abilities needed in doing their jobs. The capacities acquired through training and development could reflect positively in the employees’ task performance or in their relationships among themselves. However, the results from the dimensional analysis where training and development had significant impact on contextual performance and not on task performance indicated that training and development in the Institution only impact extra-role aspect of their job performance. A plausible explanation for this observation could be in the content of the training and development the employees have had. It could be that the employees have had more of contextual performance training than task performance training.

The hypothesis that non-academic staff of Delta State Polytechnic, Ogwashi-uku that scored high on exposure to training and development will report significant better job performance than those who scored low was not supported. This direction of results also reflected in the dimensional analysis, i.e. non-academic staff members of the polytechnic who had high number of exposure to training and developments were not significantly different from those that had low number of exposure to training and development in contextual performance and task performance. The result is unexpected. A plausible explanation for the result is that there may not be significant difference in the skill, knowledge and behaviour acquired from training and development by those who had high exposure and those who had low exposure to training and development. This could be so if the contents of the various training and development experienced were similar.

The hypothesis that non-academic staff of Delta State Polytechnic, Ogwashi-uku that scored high on exposure to on-the-job training and development and those that scored high on exposure to off-the-job training and development will differ significantly in job performance was not support. This is unexpected. A plausible explanation for the observation is the groupings were not exclusive. A good number of the employees who were categorized as high in exposure to on-the-job training and development also reported having had some off-the job training and development. Similar situation also applied to the group of employees that fall to the high exposure of off-the-job training and development. This implies that either of the training is not absence in the two categories (high on-the-jobs and high off-the-job) tested in the study. For hypotheses 1 and 3 the effect was small, while for hypothesis 2 there was no effect. A possible explanation for this observation is that, as documented in the literature aside training and development there are some other variables that influence job performance.
Conclusion
On the basis of the findings the following conclusion were arrived at. First, training and development has significant effect on job performance as a composite. This conclusion is informed by the result obtained in hypothesis one. Second, while training and development significantly impact on contextual dimension of jobs performance, it does not significantly impact on task performance dimension of jobs performance. This conclusion also follows the observation from analysis of hypothesis one. Third, rate of exposure to training and development. (Low or high) and type of training and development (on-the-job and off-the-job) do not significantly impact job performance and its dimensions. This conclusion is derived from the results of hypothesis two and three.

Recommendation for practice
As widely reported in the literature, this study also observed that training and development positively impact jobs performance of non-academic staff members of Delta State Polytechnic Ogwashi-uku. Therefore, it is recommended that the Institution extends training and development to all it staff members, including academics. On the observation that training and development impact only the contextual performance of the employees, the Institution should revisit the types and content of training and development packages available to the staff.

Recommendation for Further Studies
The extant literature as well as this study has shown that training and development impact on job performance. However, to improve the literature on the variables the following recommendations for further study are offered. As with most organizational variable, the relationship between training/development and job performance is likely to be influenced by other variables. Therefore, further studies should aim at identifying the intervening variables (moderators and mediators) in the relationship. A few empirical studies on the effect of training and development on job performance used primary and subjective data obtained through self-report measure. Further study should combine subjective and objective measures of job performance in data collection. Factors that influence job performance are numerous, and training and development is just one of them. Therefore, studies that examined specific contributions and interactions effects of the well identified determinants of job performance are of necessity. Therefore, future studies should simultaneously tests specific contributions and interactions effects of the variables on job performance. Multiple regression analysis, path analysis and structural equation modeling could help to achieve this objective. Finally, much study has been done on training and job performance, therefore, meta-analysis is recommended on the various studies.

Limitation
As with every research effort, the present has the following limitations. First, the present research is a case study as participants were drawn from only one polytechnic. Therefore, generalization of the results is impeded. Second, the design of this study is crass sectional, and cross sectional design does not enable identification of cause-effect relationship. Therefore, it cannot be concluded from this study, particularly from the result of hypothesis one that training and development caused job performance. And third, the population and consequently the sample of study was non-academic staff, therefore, the finding of this study cannot be satisfactorily generalized to the academic staff of the Institution.
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