The impact of staff training and development on teachers' productivity

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Abstract: Training and Development has always been a driving force for enhancing the teachers' productivity and performance. A training and development program provided by the employer is a sincere effort to provide opportunities to the employees to be acquainted with the variety of skills, information, attitude and conduct. With the ever-growing needs of modern education system, the education industry has to become more techno savvy, dynamic and updated. There is always requirement of skillful and talented manpower to take up this education industry to the heights of international standards. The primary objective of this research paper is to investigate the impact of staff training and development on their productivity and performance in classroom teaching and in their administrative work as well. It can also be viewed as on their overall productivity. The data collected was through structured questionnaire. 58 teachers were interviewed through the questionnaire. Statistical Software (SPSS Version 16) was used for analyzing the data. The study concludes that there exist positive and strong relations between training and development and productivity of the teachers of Kurdistan. The study further concluded stating positive correlation between productivity and other independent factors like Skills, Expertise, Morale, Enhancement, Potential, Job Knowledge and Proficiency. Technical/Technology training is the most suitable training program for the teachers of this region.

Keywords: training and development, teachers, productivity and performance.
1. Introduction

In Human Resource Management field, training and development is linked with organizational activity with an aim of improving the individual performance and also the performance of groups. Training and development plays a very significant role in wake of the technological advancement, effectiveness of organizations and to the experiences of people in their job. Training and Development has direct associations for productivity, efficiency, accuracy and personal development. All employees of the organizations need to train and develop their staff with an objective of improving their productivity and performance but it can never be achieved it without the effective performance of its employees. The same is applicable to the teaching sector too. Teachers are the backbone of the Education Sector. In today’s competitive world training of teachers’ has become extremely necessary especially to cope with the changing demands of the teaching industry. It is also necessary as it improves the caliber of the teachers. Unfortunately, not many trained teachers are available. Therefore, the need of training the teachers arises. It is the responsibility of the managing authority to check that their employees in the workplace have the required skills, ability, passion and knowledge to work, so that there can be an increase in the productivity and performance. It is familiar to all that Training and Development improves knowledge, skills and our conduct towards our work. With the increasing competition and expectation from parents, a teacher needs regularly training. It was observed by the researchers that training and development activities are not properly planned, nor are implemented properly. They are not even coordinated well. It was also learned that very less attention was paid on Training and Development. Because of which obviously the work is not up to the mark and it hampers the productivity. This research work is therefore carried out to know the ins and outs of training and development in this sector and its impact on teacher’s performance and their productivity. Keeping this as a background for study, the objective of this research paper is to know/access the training and development method adopted. Researchers will also study the impact of training and development on teachers’ productivity. The study will be further carried to find parameters of training and development responsible for affecting the productivity. Lastly, the researchers will also throw some light on the most encouraging factor for teachers to undergo training. This study is expected to throw light on correlation between teachers’ productivity and Training and development. The findings of this research work will help and the management to find the need of Training and Development among teachers and what factors that affect the employee productivity. This research will be extremely helpful for the institutes who are focusing to increase the staff productivity through training and development. This research work will also be able to guide them as to which training method will be more appropriate for the teachers. To achieve all this, it is essentially required to train the teachers so as to flourish the students, their own personality and in parallel develop the Nation.

2. Literature review

Raja, Furqan and Khan (2011), in their research paper opined that in today’s competitive business world the most important factor is Training and development. They concluded that for both employees and the organizations, efficiency and the effectiveness is increased only by training. In the opinion of Bataineh, (2014) the staff of the organization should have enough skills to perform their duties well. Training and development programs ensure that they get acquainted with the skills require to perform their duties well. According to the researchers Rahman, Jumani, Akhter, Christhi & Ajmal (2011), Regular training programs for teachers provide them with the necessary job knowledge, skills and ability and competency that is relevant for a smooth career of a teacher. Further, they added that the personality of the teachers is reshaped, their attitudes are properly shaped, their working habits are reformed and their personality is built only through training programs. According to Pynes (2008), training and Development program seeks to change the skills, proficiency, job knowledge, or attitudes of employees. The training program may be focused on improving an employee’s self-awareness and competency. It can be used to expertise in one or more areas. Training and development increases an individual’s motivation to perform his/her job well. The works of Oguntimenhim and Akinymboth in Ojiemkenkele (2014) pointed the functions of in service training to cover: increased productivity and performance, enhancement in work quality, improved skills, knowledge, better understanding and attitudes. Benedicta Appiah (2012) pointed out that training of employees enhances knowledge for job, skills, attributes and competencies and ultimately workers performance and productivity. The sample size was 30 from Ghana i.e., the primary data of 30 was collected from of HFC bank. The study revealed that training of the employee improves the skills, abilities, competencies, knowledge, work behavior, morale and
confidence. For the study Cross functional method was used to justify the findings. Furthermore, Garavan T.N., in (2003) highlighted that attending few training sessions could enhance employee behaviors and attitudes and motivate them to increase their skills and knowledge for the job. In the opinion of Oyitso & Olomokor (2012), training brings higher confidence on workers, job knowledge, enhanced performing skills, creates greater efficiency and effectiveness and increases performance. All these factors lead to higher productivity. Zohair Abbas (2014) highlighted that some employees lack on job knowledge, skills and competence. These factors retards the employees to finish the task on time. Training helps them to eliminate the factors.

According to this literature following theoretical research framework can be framed.

Figure 1: Training and development on productivity

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Dependent Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skills</td>
<td></td>
</tr>
<tr>
<td>Expertise</td>
<td></td>
</tr>
<tr>
<td>Morale</td>
<td></td>
</tr>
<tr>
<td>Enhancement</td>
<td></td>
</tr>
<tr>
<td>Potential</td>
<td></td>
</tr>
<tr>
<td>Job Knowledge</td>
<td></td>
</tr>
<tr>
<td>Proficiency</td>
<td></td>
</tr>
</tbody>
</table>

Eze, Thecla A. Y. (2016), conducted a research on teachers productivity and highlighted that training and retraining enhanced teachers' productivity to a great extent and concluded that teachers have to be trained at regular intervals and retrained them so as to enhance their productivity at workplace. Researcher Sultana Mahbuba (2013) collected primary data from 1414 employees from Dhaka. For analyzing the Data Correlation Methodology was used. She stressed that effective training programs increase the productivity of workforce in the organization. She concluded that employees are the assets of any organization and the success and set back of organization highly depends upon the performance and productivity of the employees. The results proved that the training enhances the productivity of the workforce. Longenecker, (2010), tried to find relationship between training programs and employee motivation and found a positive relationship between them. He further added that this relation helps the employees to involve themselves more in their jobs, which ultimately results in better productivity and performance for the employees and organizations.

3. Research methodology

This research work is based on survey. For the purpose of this study, both primary and secondary data was used. It was conducted to get best and genuine results. Secondary data was collected from available books, journals, publications, research studies, articles and websites. Structured Questionnaire with closed-ended questions and rating scale questions was used to collect primary data. The questionnaire was divided into two sections. Section A analyzes the demographic profile of the respondents and Section B analyzes the impact of training and development on teacher’s Productivity and Performance. This section contains questions on both variables i.e., dependent variable and independent variable. Both variables were measured on a five Point Likert Scale ranging from Strongly Agree = 5 to Strongly Disagree = 1.

The respondents were full time university faculty from Kurdistan region. A total of 64 questionnaire were distributed out of which the researcher received the response of 58, hence the response rate is 90.62% which is sufficient sample size to carry out this research. This number is not too small or too large for this type of research work. The study was conducted in the Kurdistan region of Iraq, specifically in Erbil. Simple Random Sampling was used for this research work.
4. Data presentation and analysis

4.1 Demographic of respondents (Section A)

In this section, the researchers are interested to know the demographic of the respondents. Demographics are the quantifiable statistics of a given population. Demographic profiling is essentially an exercise in generalizing characteristics of a population. The demographic characteristics included in this research work are Age, Gender, Educational Level and Work Experience.

4.1.1 Age of respondents

<table>
<thead>
<tr>
<th>Age</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between 18 – 25 years</td>
<td>2</td>
<td>3.4</td>
<td>3.4</td>
</tr>
<tr>
<td>Between 26 – 45 years</td>
<td>53</td>
<td>91.4</td>
<td>94.8</td>
</tr>
<tr>
<td>Above 45 years</td>
<td>3</td>
<td>5.2</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>58</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Out of the total valid sample of 58 teachers, Majority (91.4%) were found to be in the age range of 26 to 45 years which means that they have potential to work for a longer duration of time and that they can focus on Training and development. Figure 4.1.1 indicates that there are 3.4% of sample in the age range of 18 – 25 years and there are 5.2% respondents whose ages were above 45 years.

4.1.2 Gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>45</td>
<td>77.6</td>
<td>77.6</td>
</tr>
<tr>
<td>Female</td>
<td>13</td>
<td>22.4</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>58</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Table above shows that out of 58 teachers of different designation male respondents were 45 whereas female respondents were 13. Figure 4.1.2 indicates that 77.6% were males and 22.4% females.

4.1.3 Educational level of respondents

<table>
<thead>
<tr>
<th>Educational Level</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Post Graduate</td>
<td>43</td>
<td>74.1</td>
<td>74.1</td>
</tr>
<tr>
<td>Ph.D</td>
<td>15</td>
<td>25.9</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>58</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Table 4.1.3 indicates the education level of respondents. It implies that 74.1% of the faculties are post graduate degree holders, while 25.9% are Doctorates. This finding reveals that there is a good number of well-qualified and trained teacher in this region and it can have a greater impact on students’ academic performance.
4.1.4 Work experience

<table>
<thead>
<tr>
<th>Work Experience</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-3 years</td>
<td>2</td>
<td>3.4</td>
<td>3.4</td>
</tr>
<tr>
<td>3-5 years</td>
<td>10</td>
<td>17.2</td>
<td>20.7</td>
</tr>
<tr>
<td>More than 5 years</td>
<td>46</td>
<td>79.3</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>58</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

The length of service of the teachers exhibits that 79.3% of the teachers have more than 5 years of teaching experience, 17.2% had 3-5 years teaching experience, while only few 3.4% does not have much experience; they have only 1-3 years of experience. This above finding shows that the teachers are experienced enough and they know better how to enhance their productivity after training and development.

4.2 Analysis of variables (Section B)

In this section, the researchers have analyzed the data using frequency Counts, Descriptive Statistics and Pearson moment correlation. The researchers have statistically correlated between the Dependent and Independent variables through structural equation modeling, multiple regression and Analysis of Variance (ANOVA).

<table>
<thead>
<tr>
<th>Training program</th>
<th>Sum</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical or Technology Training</td>
<td>22.00</td>
<td>1</td>
</tr>
<tr>
<td>Quality Training</td>
<td>9.00</td>
<td>5</td>
</tr>
<tr>
<td>Skills Training</td>
<td>8.00</td>
<td>6</td>
</tr>
<tr>
<td>Classroom or Instructor-Led Training</td>
<td>6.00</td>
<td>8</td>
</tr>
<tr>
<td>Interactive Methods</td>
<td>11.00</td>
<td>3</td>
</tr>
<tr>
<td>Hands-On Training</td>
<td>7.00</td>
<td>7</td>
</tr>
<tr>
<td>Computer-Based Training (CBT)</td>
<td>17.00</td>
<td>2</td>
</tr>
<tr>
<td>Online or E-Learning</td>
<td>11.00</td>
<td>3</td>
</tr>
<tr>
<td>Team training</td>
<td>10.00</td>
<td>4</td>
</tr>
<tr>
<td>Any other</td>
<td>8.00</td>
<td>6</td>
</tr>
</tbody>
</table>

Figure 4.2.1.1: Training programs
From the table and chart above it is clear that most of the respondents have undergone through the Technical/Technology training, followed by Computer Based Training, the third rank among the respondents was Interactive Methods and Online/E-Learning Training. However the least training method was Classroom/Instructor – led training.

<p>| Table 4.2.2: Encouraging factor for training |</p>
<table>
<thead>
<tr>
<th>Encouraging factors for undergoing training</th>
<th>Sum</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regular in-service training</td>
<td>17.00</td>
<td>3</td>
</tr>
<tr>
<td>Effective Reward System</td>
<td>29.00</td>
<td>1</td>
</tr>
<tr>
<td>Proper Motivation</td>
<td>28.00</td>
<td>2</td>
</tr>
<tr>
<td>Provision of proper and relevant Teaching Aids</td>
<td>13.00</td>
<td>4</td>
</tr>
<tr>
<td>Provision of Adequate Infrastructure</td>
<td>10.00</td>
<td>5</td>
</tr>
</tbody>
</table>

Figure 4.2.2.2: Encouraging factors for undergoing training

According to (Asare-Bediako, 2013), the organization employees perform better if they are rewarded. The analysis goes with the above literature. Effective Reward System is the major factor for improving the productivity of teachers through training. It means that if effective reward system is applied then teachers will be encouraged to undergo through the training programs, this is followed by Proper motivation.

Table 4.2.3: Analysis of variables

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skills</td>
<td>58</td>
<td>2.00</td>
<td>5.00</td>
<td>3.1897</td>
<td>.94511</td>
</tr>
<tr>
<td>Expertise</td>
<td>58</td>
<td>1.00</td>
<td>5.00</td>
<td>3.0172</td>
<td>1.17714</td>
</tr>
<tr>
<td>Morale</td>
<td>58</td>
<td>1.00</td>
<td>5.00</td>
<td>2.9483</td>
<td>1.11485</td>
</tr>
<tr>
<td>Enhancement</td>
<td>58</td>
<td>2.00</td>
<td>5.00</td>
<td>3.1379</td>
<td>1.05045</td>
</tr>
<tr>
<td>Potential</td>
<td>58</td>
<td>1.00</td>
<td>5.00</td>
<td>3.5862</td>
<td>1.31168</td>
</tr>
<tr>
<td>Job Knowledge</td>
<td>58</td>
<td>1.00</td>
<td>5.00</td>
<td>3.5517</td>
<td>1.15732</td>
</tr>
<tr>
<td>Proficiency</td>
<td>58</td>
<td>2.00</td>
<td>5.00</td>
<td>3.6379</td>
<td>.94958</td>
</tr>
<tr>
<td>Valid N (list wise)</td>
<td>58</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4.2.3 is the Description of Statistics on the selected Variables. From the Mean scores of the table above and the standard deviations of the variables which do not differ much, it shows quite similarity in reply were with one another. However, through the table above it can be
concluded that Proficiency (compared to all other variables in the table) scores the highest mean of 3.64 with deviation of 0.95 (standard), followed by Potential with mean score of 3.59 with standard deviation of 1.31 and Job Knowledge with mean score of 3.55 and with standard deviation of 1.16.

Table 4.2.4: Correlation of variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Productivity</th>
<th>Skills</th>
<th>Expertise</th>
<th>Morale</th>
<th>Enhancement</th>
<th>Potential</th>
<th>Job Knowledge</th>
<th>Proficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Productivity</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skills</td>
<td>.781**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expertise</td>
<td>.749**</td>
<td>.454**</td>
<td>.443**</td>
<td>.451**</td>
<td>.340**</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Morale</td>
<td>.863**</td>
<td>.475**</td>
<td>.443**</td>
<td>.451**</td>
<td>.340**</td>
<td>.284**</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Enhancement</td>
<td>.774**</td>
<td>.398**</td>
<td>.451**</td>
<td>.405**</td>
<td>.340**</td>
<td>.284**</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Potential</td>
<td>.664**</td>
<td>.362**</td>
<td>.277**</td>
<td>.405**</td>
<td>.340**</td>
<td>.300**</td>
<td>1</td>
<td>.408**</td>
</tr>
<tr>
<td>Job Knowledge</td>
<td>.668**</td>
<td>.416**</td>
<td>.315**</td>
<td>.498**</td>
<td>.340**</td>
<td>.300**</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Proficiency</td>
<td>.689**</td>
<td>.371**</td>
<td>.257</td>
<td>.329**</td>
<td>.403**</td>
<td>.409**</td>
<td>.408**</td>
<td>1</td>
</tr>
</tbody>
</table>

**: Correlation is significant at the 0.01 level

Table above shown represents the correlation among variables. Table above implies positive relations among all the variables. It gives a positive and significant correlation between productivity and Skills, Expertise, Morale, Enhancement, Potential, Job Knowledge and Proficiency. All independent variables with values of 0.689, 0.371, 0.257, 0.329, 0.403, 0.409 and 0.408 respectively are significant at 0.01 level. From the table it can also be interpreted that productivity has a significant positive relationship with Skills, Expertise, Morale, Enhancement, Potential, Job Knowledge and Proficiency with correlations values (r) of 0.781, 0.749, 0.863, 0.774, 0.664, 0.669 and 0.689 respectively.

Table 4.2.5: Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of Estimate</th>
<th>R Square Change</th>
<th>F Change</th>
<th>df1</th>
<th>df2</th>
<th>Sig. F Change</th>
<th>Durbin-Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.964a</td>
<td>.929</td>
<td>.919</td>
<td>.23201</td>
<td>.929</td>
<td>93.374</td>
<td>7</td>
<td>50</td>
<td>.000</td>
<td>1.677</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Skills, Expertise, Morale, Enhancement, Potential, Job Knowledge, Proficiency

The Table 4.2.5 of Model Summary, the $R^2$ value is 92.9%, it is the percent of variation of the productivity (i.e., coefficient of determination) in the outcome variable that is explained by the set of predictor variables (Skills, Expertise, Morale, Enhancement, Potential, Job Knowledge and Proficiency). The adjusted $R^2$ value is 0.919 and is calculated on the $R^2$ that is adjusted based on the number of predictors in the model. Durbin–Watson test statistic is used to detect the presence of autocorrelation in the prediction errors from a regression analysis. From the table it is clear that Durbin–Watson statistic is substantially less than 2 (two), hence there is clear evidence of positive serial correlation between the predictors.

Table 4.2.6: ANOVA

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>35.184</td>
<td>7</td>
<td>5.026</td>
<td>93.374</td>
<td>.000*</td>
</tr>
<tr>
<td>Residual</td>
<td>2.692</td>
<td>50</td>
<td>.054</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>37.876</td>
<td>57</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4.2.6 shows result Analysis of Regression of dependent variable (Productivity) and Independent Variables. Calculated $F$ – value shows that when the result was compared to $F$-Tabulated was significant: $F$ (7/50) = 93.37, p=0.005, which directly implies that the selected independent variables were significant variable that affects the productivity (Dependent Variable).
Table 4.2.7 shows the result of Regression, which confirms the result of ANOVA with Skills, Expertise, Morale, Enhancement, Potential and Proficiency being significant, $t(2.680)= 2.146, 2.280, 2.066, 4.269, 4.477$ and $2.641$ respectively, $p<0.05$. However, it was found from the table above that Job Knowledge being not significant. The beta coefficient of Job Knowledge is $-0.25$ is not statistically significant, that indicates that this variable will not significantly predict the outcome.

**Conclusion**

This research work was carried out to study the impact of training and development on teachers' productivity and performance. It is concluded that training and development is an essentially important element of human resource management for every teaching institution and there exists powerful connection between training and development and teachers' productivity and performance. The findings revealed that there exists a strong and positive relationship between training and development and productivity of the teachers of Kurdistan. However, with the seven independent variables used for the study, it was found that variables like Skills, Expertise, Morale, Enhancement, Potential and Proficiency being significant coefficient and only Job Knowledge was not significant.

It is concluded that training and development to have profound influence on teachers' productivity, therefore teachers need to be regularly motivated for training programs in to enhance their productivity. Based on this research it is interpreted that the teachers' can be motivated through proper reward system and proper motivation to them as they are the vital factors to draw them towards training programs. It can also be concluded that majority of the teachers have undergone through the Technical/Technology training, followed by Computer Based Training, and lastly Interactive Methods and Online/E-Learning Training. The respondents opined that Technical/Technology training is best suitable training program for them as it increases their productivity after training. Training and development of teachers will go a long way in benefitting the institutions.

**Recommendations**

The Management of the Institutes is required to invest in training sessions for teachers and it is important to assess and review the effectiveness of training methods implemented in the institutions and get regular feedback from teachers to ensure best results.

**Appendix A. Supplementary material**

Supplementary data associated with this article can be found, in the online version, at https://doi.org/10.14254/jems.2019.4-1.4

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