Enhancing Training Effectiveness Evaluation Through Effectiveness Measurement Model: revealed from Employee’s Study At Large Scale Industries of Ahmednagar District

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Abstract: The presented work model is outcome of research study done at Ahmednagar district. Considering effectiveness of training activities on performance of employees of large scale industries the researcher has tried to put the answer by introducing ‘TEE through EMM’ model. As like HR audit, on periodic basis every organization can do TEE (Training Effectiveness Evaluation) at the end of year. An analytical study was undertaken on Effectiveness of training and development activities on performance of employees at large scale industries of Ahmednagar district. With intuition to throw some light on training activities of district’s large scale industries researcher had begun the study. A detailed questionnaire was drafted for fulfilling the research objectives. Data was collected from 100 employees of sectorial representative enterprises. And results were analyzed. The outcome revealed the presented model where training activities has been suggested in most professional manner. The constructed archetypal is different than just analyzing impact of post training. ‘TEE through EMM’ provides tools for planning, gathering information, converts the data into meaningful format by systematic analysis and evaluates, measures effectiveness training on employee’s as well as firm’s performance. In short model accomplishes need of comprehensive, integrated, strategic & structural sequence of activities in the training area of the corporations.

Keywords: Training; effectiveness; measurement; employee, large scale industry.

I. INTRODUCTION

TEE through EMM is the proposed way to gain results of training activity. It is based on selected parameter such as procedure, trainer, methods, equipment, involvement etc. the model includes overall phases of T & D programs. In that way it becomes comprehensive analysis of Training activities within organization. A single or numbers of training programs can be judge with the help of this model.

The model represents various activities in seven steps. Starting from first it goes for knowing the existing environment, knowing the future needs and understanding employees through identifying their common traits required at work. In the second step the model determines business as well as learning metrics, later in third step organization can decided training portfolio to be provided to their employees. Fourth step describes the implementation of training program promptly; later evaluation of training program on five different levels has been covered in the fifth step of this model. The most crucial sixth step includes measuring effect on performance of employees in various angles, as well as it measures effect of employee’s performance on fulfillment of organizational objectives. At last in the seventh step corrective actions has been suggested for improving effectiveness of future T & D activities.
II. RESEARCH METHODOLOGY

**Defining problem** - Measuring effectiveness of training activities on employee’s performance accurately remains an unanswered question for organizations. Industries can identity benefits of training through analyzing profitability, increased productivity, observing behavior and teamwork amongst employees but as Raymond Noe remarked, ‘No evaluation design can ensure that, the results of the evaluation are completely due to training’ it can be said certainly that everything has changed just because of training. with this perspective researcher has started analysis of training activities on employee’s performance in selected area. It was the part of keen interest to know impact of overall T & D activities on employees in together manner of large scale industries of the district.

Nevertheless it was reviewed that, where most of evaluation models start from measuring reaction instead of core need assessment, as well as most of models ends at output of training activities but they haven’t covered the corrective actions to be taken in future T & D programs. Thus there is felt need of unique and comprehensive model which can be useful for actual effectiveness measuring practice at industries.

**Objectives** - The study intended following objectives:

1. To look at the efforts in large scale industry units are putting in training activities in Ahmednagar.
2. To review and analyze training activities conducted by selected large scale industry units.
3. To check the effectiveness of training activities from the view point of trainees.
4. To suggest majors for improvement of effectiveness of training activities.

**Sample design** - For this research supervisory and managerial level employees have considered as sample unit. Employees of the seven selected firms of the large scale units of Ahmednagar district have chosen as population and random sampling method been used for sample selection. Crompton Grieves and L & T was the two industries become part of this sample framework from where data had collected.

Together out of from 400 employees of both company 100 employees selected randomly. A major questions been asked to them, as well as observation and general discussion method was used to collect the responses of employees.

**Data collection methods** - Both primary and secondary method was used for collection of data. Questionnaire and observation was the primary methods and brochure, websites of co’s and related government departments was the secondary methods of data collection.

III. DATA ANALYSIS AND INTERPRETATION

In the questionnaire major focus attention of employees was given on the provided opportunities for application of training by organization and most importantly benefits and effects of training on employees performance part has covered in survey.

The analysis and interpretations of above mention part is as like below-

- **Opportunities for application of training** - Following table showing the responses of trainees given on Likert scale about opportunities for application of training:

<table>
<thead>
<tr>
<th>Opportunities for application of Training</th>
<th>% of respondents who stated the criterion as either strongly agree and agree</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Total (%) Value</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training has contributed towards value addition to my functional abilities</td>
<td>92%</td>
<td>15</td>
<td>77</td>
<td>8</td>
<td>0</td>
<td>0</td>
<td>14.51%</td>
<td>2</td>
</tr>
<tr>
<td>My contribution in organization has enhanced because of training</td>
<td>82%</td>
<td>13</td>
<td>76</td>
<td>15</td>
<td>2</td>
<td>0</td>
<td>14.94%</td>
<td>1</td>
</tr>
<tr>
<td>The organization has provided right kind of climate to implement new ideas and methods acquired through</td>
<td>81%</td>
<td>7</td>
<td>75</td>
<td>19</td>
<td>0</td>
<td>0</td>
<td>14.36%</td>
<td>4</td>
</tr>
</tbody>
</table>
After attending the training programs, I am able to do my job/ tasks more efficiently than before 77%  
I feel that, I am benefited from the training Programs and its objectives 76%  
After completion of my training, I have given adequate time to reflect and plan the improvements in my area of work 73%  
Sufficient follow-up is made on learning objectives after the training 65%  

Following graph showing the number of respondents given on opportunities for application of training:

Interpretation- The above graph shows sharply that most of employees responded the option of strongly agree and agree for opportunities given for application of training. maximum respondents chosen agree option out of other options provided on the scale. 58 respondents opted agree for Sufficient follow-up is made on learning objectives after the training, 65 agreed that After completion of my training, I have given adequate time to reflect and plan the improvements in my area of work, 58 agreed for they feel that, I am benefited from the training Programs and its objectives, 63 respondents agreed for After attending the training programs, I am able to do my job/ tasks more efficiently than before, 75 agreed for the organization has provided right kind of climate to implement new ideas and methods acquired through training, 76 agreed that their contribution in organization has enhanced because of training, and 77 agreed for Training has contributed towards value addition to my functional abilities.
Interpretation: The above graph shows that, as far as “Opportunities for application of Training” are concerned, ‘My contribution in organization has enhanced because of training’ got 14.94% maximum value, followed by ‘Training has contributed towards value addition to my functional abilities’ with 14.51% and ‘After attending the training programs, I am able to do my job/ tasks more efficiently than before’ with 14.45%

- Benefits and effects of training on employee’s performance- Following table showing the frequency, cumulative frequency, percentage frequency, percentage cumulative frequency respectively:

<table>
<thead>
<tr>
<th>Benefits and effects of the training on Employees Performance</th>
<th>% of respondents who stated the criterion as either strongly agree and agree</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Total Value; (%)</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>increased my skills</td>
<td>97%</td>
<td>25</td>
<td>72</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>9.57%</td>
<td>2</td>
</tr>
<tr>
<td>increased my work knowledge</td>
<td>93%</td>
<td>18</td>
<td>75</td>
<td>7</td>
<td>0</td>
<td>0</td>
<td>9.59%</td>
<td>1</td>
</tr>
<tr>
<td>improved my confidence</td>
<td>93%</td>
<td>29</td>
<td>64</td>
<td>7</td>
<td>0</td>
<td>0</td>
<td>9.16%</td>
<td>5</td>
</tr>
<tr>
<td>increased my involvement in the Job</td>
<td>87%</td>
<td>10</td>
<td>77</td>
<td>8</td>
<td>5</td>
<td>0</td>
<td>9.20%</td>
<td>4</td>
</tr>
<tr>
<td>improved my communication skills</td>
<td>85%</td>
<td>19</td>
<td>66</td>
<td>15</td>
<td>0</td>
<td>0</td>
<td>9.32%</td>
<td>3</td>
</tr>
<tr>
<td>increased my motivational level</td>
<td>83%</td>
<td>20</td>
<td>63</td>
<td>17</td>
<td>0</td>
<td>0</td>
<td>8.85%</td>
<td>9</td>
</tr>
<tr>
<td>improved my behavior and attitude</td>
<td>83%</td>
<td>13</td>
<td>70</td>
<td>17</td>
<td>0</td>
<td>0</td>
<td>8.92%</td>
<td>7</td>
</tr>
<tr>
<td>increased my satisfaction/ self esteem</td>
<td>83%</td>
<td>5</td>
<td>79</td>
<td>12</td>
<td>5</td>
<td>0</td>
<td>9.01%</td>
<td>6</td>
</tr>
<tr>
<td>increased my punctuality at work</td>
<td>79%</td>
<td>9</td>
<td>71</td>
<td>19</td>
<td>2</td>
<td>0</td>
<td>8.91%</td>
<td>8</td>
</tr>
<tr>
<td>Improved teamwork within and bet. Dept.</td>
<td>78%</td>
<td>14</td>
<td>64</td>
<td>22</td>
<td>0</td>
<td>0</td>
<td>8.78%</td>
<td>10</td>
</tr>
<tr>
<td>increased my productivity</td>
<td>74%</td>
<td>15</td>
<td>59</td>
<td>26</td>
<td>0</td>
<td>0</td>
<td>8.70%</td>
<td>11</td>
</tr>
</tbody>
</table>

Following graph showing the percentage frequency of respondents for awareness about training need identification:
Interpretation: Above graph indicates severely that, most of employees are getting benefits of training program and it has surely positive effect on employee’s performance. More than 80% respondents responded with both strongly agree and agree choices. Further 59 employees agreed upon training have increased their productivity. 64 respondents agreed for training has improved their teamwork. 71 agreed that training has increased their punctuality at work. 79 agreed for increased satisfaction and self-esteem. 70 stated response of agree that improved behavior and attitude, 63 agreed that increased their motivational level, 60 responded with agree option for increased their communication skill, 77 agreed that increased involvement in job, 64 stated the agreed option on increased confidence, where 29 remarked as strongly agree for increased confidence, 75 agreed for increased their work knowledge, at last 72 agreed for increased their other skills.
**Interpretation:** The above graph shows that, as far as “Benefits and effects of the training on Employees Performance” are concerned, ‘increased my work knowledge’ got 9.59% maximum value, followed by ‘increased my skills’ with 9.57% and ‘improved my communication skills’ with 9.32%

### IV. FINDINGS

#### 1. Opportunities for application of training:

All together more than 80% respondents are agreed on satisfactory opportunities have been provided them for application of training. It replicate that, the application of skills learned during the training session are not put in use in a haphazard manner but rather in a planned way by giving adequate time for the learner to think, absorb and then plan.

The functional abilities of the trainees have shown upward trend because of which the employees have contributed towards value addition is clear from the majority of the employees agreeing to it. Most of them had agreed that their contribution in organization has enhanced just because of training activities. Most of the employees agree to have right climate to put their ideas and methods acquired through training into practice. They found training program helpful to do job/ task more efficiently, they also feels benefited from the training programs and its objectives. All the employees have agreed to the fact that they are given sufficient time to reflect and plan the improvements in the area of the work. The response denotes basic follow-up is made after training to assess impact.

On the other side the statistics from neutral option are indicates that the employees feel more necessity on take follow-up on learning application after training program, & for improvement in working area planning and more time is needed.

Finding from total value concern are more towards opportunities for application of training, enhanced contribution, value addition to functional abilities, increased efficiency subsequently.

#### 2. Benefits and effects of the training on Employees performance:

Overall 85% respondents have given responses for either strongly agree and agree. Near about 70% opted agree option in the session of ‘Benefits and effects of the training on their performance’. This statistics are clearly indicating the favor and highly positivizes towards employees are filling very beneficial by training and development activities. The diagnosis over benefits of training has proved that, training is highly noteworthy activity for improving employee`s performance at work. And in the research area acceptability, implement ability, outcomes controllability is positive both from employees as well as industries point of view.

Furthermore in detail analysis of this session reveals following understandings: After attending the training programmes conducted by the organizations, almost all of the employees have agreed (97%) to the fact that the training programme has helped increase their skills, 93% agreed for training has increased their work knowledge. It has been instrumental in developing confidence (93%). Training program has proven influencing in increasing their involvement in job as stated by 87% employees, 85% agreed that training has sharpened their communication skills and it has not only increased motivational level (83%) but also changed their behavior and attitude in a positive way (83%). The view point is changed for the betterment and because of which they have gained satisfaction and change in self-esteem (83%). In executing their engineering skills which are essential in a manufacturing concern training has improved punctuality (79%) and productivity (74%). In addition to the above, the employees have felt that the enhancement in teamwork and interdepartmental harmony. Since they themselves have been motivated to motivate others, the training has added to their overall personality.

Area of productivity also needs to consider where sufficient number of respondents found neutral. In adding the same majority of the employees however were neutral in deciding the teamwork improvement in the department. This may be because they must have thought that the question is addressed to the inter-departmental team work so they may not know what is the position in other departments than their own department.

Like as above punctuality area where neutral responses found sizable.

But when all other yardsticks were showing the positivity it may take as degree of variance. However corrective action will be taken to reach up to highest level of Likert scale i.e. providing the best.
Another concern from employees towards value based ranking to given points. It is been detected that, point of increased work knowledge have received maximum attention, later ‘increased skills’ and ‘development in communication skills’ has attained caution.

Meanwhile, all employees are in agreement with the statement that the training has augmented their performance and they are acquiring the benefits of the same.

V. SUGGESTION

General suggestions:

1. Opportunities for application of training have been provided through number of ways to employees. Industries have provided adequate time to reflect and plan the improvement, provided right kind of climate, improved functional abilities, care has taken for performing task more efficiently, and regard to follow-up. Recommendation in this aspect could be made on extra follow-up after training program is required to add more value, as well as mechanism is required on ensuring adequate time is provided to reflect and plan improvements. Considering more concern of employees towards application opportunities, functional abilities and efficiency improvement, organization’s HR department focus should be more on these issues.

a. To get easiness, clarity, simplicity and continuity in opportunity to application training ‘mentorship’ could be suitable for organization. An immediate boss or experienced authority can work as voluntary mentor to look after the appropriate chances to apply learned activities in training. A periodic, systematic review based system will be fruitful to understand suitable opportunities been provided to employees or not. All in one right kind of opportunities for application of training resulted into higher efficiency and effectiveness of employee’s performance this area cannot be neglected.

2. The ultimate purpose of training activities is improving performance of employees so that it will raise organizational performance. In the research are most of industries found in the proper direction and appropriates efforts has been taking to provide best training matching to the standard of industry. The analysis results confirmed that, training activities are very much beneficial to maximum employees for upgrading themselves. As far as concern to effectiveness of training and development activities employees admired the progressive effect on their performance.

a. The focus should be given on productivity aspect, here practices of monitoring by senior and periodic task accomplishments have to consider for results. Sometimes employees could not understand the productivity area and where to take effort for increasing productivity, internal trainer should cover this atmosphere. Thereafter in training sessions focus should be given on teamwork. For this purpose roles play session and group based case studies have to be provided to solve. In short additional group based training session have to increase. Punctuality of the employee is another concern where regular monitoring and discipline based training practices need to develop.

b. In the provided yardstick maximum value triggered at increased knowledge, job skills, and increased communication skills, thus future training program can equipped with activities based on above areas. After all training is the effort put forth by an employer to provide employee job related culture, skills, knowledge, and attitudes that result in improved performance in the productive environment.

3. To extract expected benefit from training and development activities common perception towards training need to develop positive. T & D programs are acts as support and helping hand for up gradation of employee’s knowledge and skills, thus each employee must view it as an investment. To develop a positive congruence of employee’s organizational authorities need to interact regularly with employees and change their lookout towards training programs.

4. Future training is more with auto and computer based simulation methods, where self-motivated and self-learner trainees could get maximum. For this purpose positive attitude to become trainer will help employees and organization. Organization must take efforts to motivate employee and make them self-learner.

5. Openness in accepting suggestions by employees on training program is healthy sign of organizations environment. All suggestions could not be accept and implemented at organizational level but is possible to hear them in good faith. Thus, a provision can be made as like suggestion box or separate link to be provided for making any kind of suggestion from trainees. It will develop sense of belongingness amongst employees.
6. It makes clear that, training programs should be considered seriously by top management. Negligence and haphazardness by any industry towards T & D activity will limit their present and future performance. Nevertheless it is the activity through which organization can bring change in organization culture and if implemented properly it will help organization to develop competitive advantage.

7. It is the behavioral skills which differentiate strengths and weaknesses of industries manpower. Employee’s performance can’t be extracted in case of lack of behavior skills. After all any sharp and productive employee required support and contribution by other colleagues, bosses and subordinate. Organization is not the place where isolated work can bring major outcome to all. It is the teamwork by which major outcomes can be achieved. Thus to inculcate right behavior amongst employees industries must be in practice to organize training program in this area.

8. Organization must organize and implement T & D activities rigorously, regularly, resourcefully & repetitively within specific period of the year. The success of industries comes through accomplishment of their periodic objectives. Here training play vital role. Motivation, support and work efficiency get improves by training activities and opportunistic work environment can produce the desired outcome.

**Suggested Model:**

The suggestions provided under this section are designed by researcher for improving effectiveness of training activities on performance of employees. The learning organization can take whole or few, as it is or modify as per fittingness of industry but it will definitely contribute new perspective and add value in T & D activities of organizations.

**TEE through EMM i.e. Training Effectiveness Evaluation through Effectiveness Measurement Model:**

<table>
<thead>
<tr>
<th>STEP I</th>
<th>Studying Existing job designs</th>
<th>Identifying common traits of employees</th>
<th>Understanding changing organization scenario</th>
</tr>
</thead>
<tbody>
<tr>
<td>STEP II</td>
<td>Determine Business Metrics</td>
<td>Determine Learning Metrics</td>
<td></td>
</tr>
<tr>
<td>STEP III</td>
<td>Deciding Training Portfolio (Mix)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>STEP IV</td>
<td>Implementing Training Activities/ Programs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>STEP V</td>
<td>Training Evaluation Practices</td>
<td>Procedure Evaluation</td>
<td>Trainer evaluation</td>
</tr>
<tr>
<td>STEP VI</td>
<td>Measuring effect on performance of employees - Time I &amp; Time II</td>
<td>Measuring effect on organizational objectives - Time I &amp; Time II</td>
<td></td>
</tr>
<tr>
<td>STEP VII</td>
<td>corrective actions for future T &amp; D activities</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Novelty Journals
**Detailed Description:** The model has seven steps. *Step I* is about the current situation and deliberately goes for understanding core need of T & D activities at work. Here importance is given to identify common traits amongst employees, later understanding existing job design is included for knowing the duties and responsibilities to perform, third changing organizational scenario have been considered for anticipating short and long run changes in industry. By this way we can gather gap, or deficiency to which we can fulfill or bridge through T & D activities.

In the *Step II* based on the step I understanding organization can determine business metrics and learning metrics. This is nothing but deciding the elements where industry want to be focused and would like to see the results. In short these are Key Result Areas of T & D programs.

*Step III* is crucial one where organization needs to finalize their training portfolio or mix. Here organization can decide training cost, method mix, duration of program or programs, location, trainer, equipment, number and types of trainees etc. deciding all of this things is like integration thus it has named training portfolio or training mix.

*Step IV* denotes the implementation of planned training activities in decided time frame. Successful implementation required support of top management, active participation of middle level managers, and involvement of trainees and delivery of best by trainers.

In the *Step V* evaluation practices have been covered. It includes procedure evaluation, that goes systematic or unsystematic way of doing the things, trainer evaluation undertakes study of trainers capabilities, next to that training methods are judged on relevance of predefined objectives, later equipment, facilities of training will be assess, at last involvement of employees in training and application of training will be evaluate.

In the next *Step VI*, relevance of outcomes related to training metrics i.e. objectives will be correlate with evaluation practices. With this contaminated areas can be sorted out. And more important with relevance of evaluation practices effect of T & D activities on performance of employees and accomplishment of organizational objectives will be measured. Here step VI will answer results i.e. up to how much level/percentage the business metrics and learning metrics are fulfilled. And step V will answer the reasons of particular results.

At last *Step VII* will declare that what kind of corrective actions will be taken for success of future T & D programs. On the basis of results and learning experience received corrective measure will be suggested for future programs. In this step focus and avoidance can be state. Thus, TEE through EMM provides detail understanding and much comprehensive method to gather effectiveness of T & D activities at industries.

**EMM for avoiding areas of waste:** Avoiding areas of waste is the major concern towards developing effectiveness of organization. Saving is earning, like as identify and avoid waste is improving efficiency and effectiveness. The above stated model will be useful in that concern also. The step V i.e. evaluation practices will help to recognize areas of waste and through that monitoring and control over training activities will be accurate. Specifically physical an human resources such as money, manpower, material have to utilize at optimum level in training and development activities.

**VI. CONCLUSION**

To conclude the study on effectiveness of training and presented revealed model for improvement it can be said that, training works as catalyst activity to bring positive changes in organization. Casual approach and negligence towards the same could not be affordable for long term progress of organization. As the industries spending high amount on the T & D activities regularly in the year, the effectiveness must be monitored, evaluated comprehensively. In this purview paper discuss about inspected lacunas and difficulties it also suggests remedies to overcome common weaknesses. Among that ‘TEE through EMM’ has provided for planning and execution of T & D activities. This model will help to bring overall efficiency and effectiveness in training activities of organization. In short all the suggestion are goes in way of empowering T & D activities and travels around development of reaction, learning, behavior and output of organizational employees.
REFERENCES


