



## Opinion difference of teachers on existing training and development practices in private engineering institutions

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### Abstract

With frequent innovations and technology development in industry, engineering institutions need to be updated on content and pedagogy so that the same can make the fresh engineering graduates employable. Teachers need to develop themselves and if they are not then it becomes duty of engineering institutions. Acquiring knowledge being complicated and expensive, the institutions must play this role comprehensively. The HRD practices mainly responsible for development of human resource are training for which ingredient is found through performance appraisal and training and development is supported by knowledge management. This paper tries to find out the extent of training and development practices for teachers in institutions. For this, the subjects were assistant professors, associate professors and professors teaching engineering students and the same subject are categorized as male and female. The opinions about training practices were found and later the statuses of opinion difference were established. Designation and gender wise, the teachers were asked questions through structured and closed ended questionnaire with five point liker scale. Through convenient sampling, proportional sample is drawn. The opinions of teachers were derived using mean value. Various hypotheses were created regarding opinion difference and later using t – test, hypotheses was tested. Opinions of all the members of both category were similar and no difference in opinion were found between any category members. The overall findings suggest that in perception of teachers teaching in engineering colleges in Chhattisgarh, there is very poor practice of training for the faculty members and there is no difference of opinions between any category members.

**Keywords:** engineering institutions, engineering teachers, training and development, assistant professor, associate professor and professor

### 1. Introduction

This paper is in continuance of my previous paper, Opinion Difference of Teachers on Existing Training and Development Practices in Private Engineering Institutions and is part of my Ph.D. work. Engineering students in Chhattisgarh are mostly unemployable and this is supported by a report of Devika Singh (2016) <sup>[1]</sup>. Lacking of various skills required by engineers in their workplace is the reason of un-employability as confirmed by CareerBuilder Survey (2015) <sup>[2]</sup>. Patrika Newspaper (2017) <sup>[3]</sup> presented the scenario of engineering college in India as: till 2017, 500 engineering colleges have applied to AICTE for closure of their institutions.

Numerous teaching techniques have become obsolete and at the same time many new methods are developed. Again, due to innovations, the content has changed tremendously in recent years. Entire teacher fraternity can't be equipped with these new things by themselves. Institutions need to know the training requirements and later provide the training on regular mode.

### Need of the Study

AICTE suggested the quality of institutions as reason for above scenario of engineering institutions. One factor can be teachers' quality. Regular training to the faculty members (FM) thus is required. Before this, it is must to know the existing practices of training in engineering institutions. To

know this, various aspects of training and development has been identified. The response of faculty members is taken on these aspects. Various facets of training and development to be dealt in this study are given ahead:

### Benefits of Training

Enhances various skills of faculty members, Enhances knowledge of faculty members, Enhances performance of faculty members, Enhances chances of Teachers for higher tasks.

### Identification of Training through Various Sources

Needs are identified by faculty members, Needs are identified through PA, Needs are identified by immediate superior, Needs are dependent on situation.

### Training Process

Identification of training needs is properly done, planning and designing of training is properly done, Evaluation of training is done after training programme, Training is conducted on regular basis.

### Scope of the Study

The study has been done in self financed engineering colleges affiliated to CSVTU located in Chhattisgarh. The population for the study was the teaching staff of these colleges and the

sample is drawn category wise from this population. The whole sample is divided into two group i.e. designation wise and gender wise. Designation includes professor, associate professor and assistant professor.

**2. Literature Review**

**Training and its relation with Employee & Organizational Performance**

Training enhance employee and organization performance and is verified by various research papers.

As per Peteraf (1993) [4], through training, skills, knowledge and abilities are obtained and transferred to perform particular work leading to achievement of organizational goals. Apospori *et al.* (2008) [5] highlighted that training has impact

on organizational performance. Ampomah (2016) [6] suggested that employees feel training having positive impact on their performance and also on job satisfaction.. Nikitha and Madhusudana (2015) [7] concluded that training by increasing productivity of employees increases chance of better career leading to improved firm’s performance. As per AL-Sinawi *et al.* (2015) [8], employees’ quality training and their work performance are linked. Thus, training with its proper elements is very much essential for enhancing employee performance.

Various aspects of training to be studied and responses on which to be collected are taken from numerous research papers. Details are given as under:

**Table 1**

Aspects of Training	Authors
Training enhances various skills of FM	Cooney <i>et al.</i> , Cook, Cole, Grower
Training enhances knowledge of FM	Cook, Cole, Grower
Training enhances performance of FM	Farooq, Cooney <i>et al.</i> , Aguinis and Kraiger
Training enhances chances of FM for higher tasks	Tahir <i>et al.</i> , Kum <i>et al.</i>
Training needs are identified by FM	Krik Patrick, TNA, Khan
Training needs are identified through PA	Krik Patrick, Khanan, Bintu
Training needs are identified by Immediate Superior	Krik Patrick, Joseph, Khan
Training needs are identified due to situation change	CMI, Sarma, Aswathapa
Identification of training needs is done	Karim, Kunder, Kulkarni, Nassazi
Planning/designing of training is properly done	Karim, Kunder, Kulkarni, Nassazi
Training is conducted properly on regular basis	Karim, Kunder, Kulkarni, Nassazi
Training is conducted properly on regular basis	Krik Patrick, Khanan, Bintu

**3. Objective of the Study**

Objectives give direction about the sample for response and type of data to be gathered. The objective of this paper is to derive the category wise opinion of respondents’ about the various aspects of training from their responses. The first category of respondents is designation wise –professor, associate professor, and assistant professor. The second category is gender wise - male and female teachers. Further, category wise similarity or difference in the opinion is to be established.

**4. Research Methodology**

Descriptive research design is found to be appropriate. The population under study includes professors, associate professors and assistant professors teaching in private engineering colleges affiliated to CSVTU, Bhilai. The study has been conducted as per male and female also. Primary source of data are the responses of 263 respondents. Details of samples collected through convenient sampling are as follows:

**Table 2**

Designation wise category	No. of Samples	Gender wise category	No. of Samples
		Male	Female
Professor	11	7	4
Associate Professor	30	20	10
Assistant Professor	222	140	82
Total	263	167	96

After getting the consent from 300 teachers, close-ended questionnaires were sent to them out of which 246 filled the questionnaire. To make it proportional, selectively 17 teachers were again consulted and asked to fill the questionnaire and thus finally total 263 valid questionnaires were available to carry on the study.

Five point likert scale with Strongly Agree (SA)= 5, Agree (A)= 4, Neutral (N)= 3, Disagree (DA)= 2 and Strongly Disagree (SDA)= 1 options were used to gather the opinion of respondents.

CSVTU website (seniority list) was used for details of the population. The aspects of training were gathered from various research papers and books. Three aspects of training are taken for study which are: Benefits of training, Identification of training through various sources, and Training process. Related to each four facets, four questions separately were asked. Following are the questions:

**Statement 1:** Training results in various benefits (As per general perception)

- Question TD1\_1: Training enhances various skills of faculty members
- Question TD1\_2: Training enhances knowledge of faculty members
- Question TD1\_3: Training enhances performance of faculty members
- Question TD1\_4: Training enhances chances of faculty members for preparation for higher tasks

**Statement 2:** Training needs are identified through all the sources

- Question TD2\_1: Training needs are identified by faculty members
- Question TD2\_2: Training needs are identified through PA
- Question TD2\_3: Training needs are identified by Immediate Superior
- Question TD2\_4: Training needs are dependent on Situation

**Statement 3:** Formal Stages of Training Process is followed

- Question TD3\_1: Whether identification of training needs is done
- Question TD3\_2: Whether planning and designing of training is properly done
- Question TD3\_3: Whether training is conducted properly on regular basis
- Question TD3\_4: Whether evaluation of training is done after training program

On above given twelve (12) questions, responses of teachers were taken and later deducted to final three (3) opinions separately related to above specified three aspects. Opinions are derived designation wise of professor, associate professor and assistant professor group for each three aspects. Again opinions are of male teachers group and female teacher group gender wise four (4) opinions are formed. Mean values method was used to form opinions.

Now, it was needed to know the similarity or dissimilarity on opinions among professor, associate professor and assistant professor groups. This was also needed w.r.t. male and female teachers groups' opinion. To test this, twelve hypotheses were prepared, designation wise nine and gender wise three.

These hypotheses are as follows:

**Statement 1:** Training results in various benefits (As per general perception)

- **TDH1\_1:** Professor and associate professor do not differ in their opinion regarding the statement: Training results in various benefits.
- **TDH1\_2:** Professor and assistant professor do not differ in their opinion regarding the statement: Training results in various benefits.
- **TDH1\_3:** Associate professor and assistant professor do not differ in their opinion regarding the statement: Training results in various benefits.
- **TDH1\_4:** Male teacher and female teacher do not differ in their opinion regarding the statement: Training results in various benefits.

**Statement 2:** Training needs are identified through all the sources

- **TDH2\_1:** Professor and associate professor do not differ in their opinion regarding the statement: Training needs are identified through all the sources.
- **TDH2\_2:** Professor and assistant professor do not differ in

their opinion regarding the statement: Training needs are identified through all the sources.

- **TDH2\_3:** Associate professor and assistant professor do not differ in their opinion regarding the statement: Training needs are identified through all the sources.
- **TDH2\_4:** Male teacher and female teacher do not differ in their opinion regarding the statement: Training needs are identified through all the sources.

**Statement 3:** Formal Stages of Training Process is followed\*\*

- **TDH3\_1:** Professor and associate professor do not differ in their opinion regarding the statement: Formal Stages of Training Process is followed.
- **TDH3\_2:** Professor and assistant professor do not differ in their opinion regarding the statement: Formal Stages of Training Process is followed.
- **TDH3\_3:** Associate professor and assistant professor do not differ in their opinion regarding the statement: Formal Stages of Training Process is followed.
- **TDH3\_4:** Male teacher and female teacher do not differ in their opinion regarding the statement: Formal Stages of Training Process is followed.

The mean values, standard deviation were calculated and later t-test is conducted using SPSS 24.0 version. Significance level of 5% i.e. 0.05 is taken for testing.

### 5. Findings and Discussion

Reliability of data is very essential and for this Cronbach's Alpha using SPSS 24 version has been used to verify the existing data. The data passed the reliability test.

Statement wise the response data in percentage is given below. The same data is shown designation wise and gender wise. The whole data is presented question wise.

Further, calculating mean value of all four questions under each statement, the statement/ opinion is confirmed to be agreeing or disagreeing. This is done for each opinion that also designation wise and gender wise.

One by one statement wise analyses are presented below:

**Statement 1:** Training results in various benefits (As per general perception)

<b>TD1</b>	<b>Reliability Statistics</b>	Cronbach's Alpha	.996	N of Items	4
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The value of Cronbach's Alpha shows the reliability of the data collected. Majority of authors opined that 0.70 and greater value of reliability coefficient is considered to be reliable although there is no as such predetermined standard. The value here is 0.996 which shows that data stands good on reliability.

The mean values of responses of all 263 respondents calculated by SPSS for each question of first statement are given below:

**Table 3**

Reliability Statistics			
	Mean	Std. Deviation	N
TD1_1	4.3726	.48442	263
TD1_2	4.3726	.48442	263
TD1_3	4.3574	.48015	263
TD1_4	4.3726	.48442	263
Overall	4.3688	0.48335	263

Zaidatol & Bagheri (2009)<sup>[9, 10]</sup> suggested that the mean value of responses given in five point likert scale with strongly

agree=5, agree=4, neutral=3, disagree=2 and strongly agree=1 if comes under 3.39 then it is taken as low, from 3.40 to 3.79 as moderate and more than 3.8 as high. This criteria is used by Zaidatol and Hisyamuddin (2009)<sup>[9, 10]</sup>, Zaidatol and Bagheri (2011)<sup>[11]</sup>, Wogari (2016)<sup>[12]</sup> in their study. Here the overall mean value i.e. 4.37 being more than 3.8 is high, suggesting overall response agreeing to the statement: Training results in various benefits.

**Hypothesis Testing**

The data given below is of professors and associate professors.

**Table 4**

Group Statistics				
	Designation	N	Mean	Std. Deviation
Td1avg	Professor	11	4.2727	.3784
	Assistant Professor	30	4.3000	.4661

  

Independent Samples Test				
		Levene's Test for Equality of Variances		t-test for Equality of Means
		F	Sig.	Sig. (2-tailed)
Tda1avg	Equal variances assumed	1.497	.229	.863
	Equal variances not assumed			.850

As shown above, for all four statements the mean values against professor (4.27) and associate professor (4.30) can be considered to be high which means both professors and associate professors agree to the statement: Training results in various benefits. Further, the mean value of professor group is little less than associate group, it can be said that professor group has little weak opinion than associate professor.

T-test is used here to find the difference between the mean values of two independent data values with significance value. 05 (5% significance level). There are two values of sig. (2-tailed) and to decide which one is applicable, the sig. value (.229) in Levene's Test for Equality Variances is compared with value. 05. if the sig. value is greater than. 05 then the value of upper row is taken, here it is. 863 otherwise if is

lower than. 05 then lower row value is taken which is. 850 here.

Now to accept or reject the hypothesis, the p-value i.e. sig. (2-tailed) is compared with significance level value i.e.. 05. In connection to hypothesis acceptance or rejection, if the p-value so calculated is greater than 0.05 then the hypothesis is accepted else rejected. Here p-value. 863 is greater than. 05 so the hypothesis, Professor and associate professor do not differ in their opinion regarding the statement: Training results in various benefits, is accepted which means there is no significant difference between opinions of professor group and associate professor group.

The data given below is of professors and assistant professors.

**Table 5**

Group Statistics				
	Designation	N	Mean	Std. Deviation
Td1avg	Professor	11	4.2727	.3784
	Asstt. Professor	222	4.3829	.4872

  

Independent Sampses Test				
		Levene's Test for Equality of Variances		t-test for Equality of Means
		F	Sig.	Sig. (2-tailed)
Td1avg	Equal variances assumed	12.769	.000	.461
	Equal variances not assumed			.372

As shown above, for all four statements the mean values against professor (4.27) and assistant professor (4.38) can be considered to be high which means both professors and assistant professors agree to the statement: Training results in various benefits. Further, the mean value of professor is more than assistant professor. It can be said that professor has strong opinion than assistant professor.

Either of the p-value. 461 and. 372 is greater than. 05 and thus

hypothesis, Professor and assistant professor do not differ in their opinion regarding the statement: Training results in various benefits, is accepted which means there is no significant difference between opinions of professor and assistant professor.

The data given below is of associate professors and assistant professors.

**Table 6**

Group Statistics				
	Designation	N	Mean	Std. Deviation
Td1avg	Asso. Professor	30	4.3000	.4661
	Asstt. Professor	222	4.3829	.4872

  

Independent Samples Test				
		Levene's Test for Equality of Variances		t-test for Equality of Means
		F	Sig.	Sig. (2-tailed)
td1avg	Equal variances assumed	.033	.856	.972
	Equal variances not assumed			.972

As shown above, for all four statements the mean values against associate professor (4.30) and assistant professor (4.39) can be considered to be high which means both associate professors and assistant professors agree to the statement: Training results in various benefits. Further, and at the same time as the mean value of associate professor is almost equal to assistant professor. It can be said that associate professor has equivalent opinion as assistant professor. The standard deviation value shows that the two groups are not far

from each other on variance. P-value of both is .972 and is greater than .05 and thus hypothesis, associate professor and assistant professor do not differ in their opinion regarding the statement: Training results in various benefits, is accepted which means there is no significant difference between opinions of associate professor and assistant professor. The data given below is of male and female teachers.

**Table 7**

Group Statistics				
	Gender	N	Mean	Std. Deviation
Td1avg	Male	167	4.3563	.47798
	Female	96	4.3906	.48641

  

Independent Samples Test				
		Levene's Test for Equality of Variances		t-test for Equality of Means
		F	Sig.	Sig. (2-tailed)
Td1avg	Equal variances assumed	.903	.343	.578
	Equal variances not assumed			.580

As shown above, for all four statements the mean values against male teachers group (4.36) and female teachers group (4.39) can be considered to be high which means both male teachers and female teachers agree to the statement: Training results in various benefits. Further, the mean value of male teachers group is slightly less than female teachers group, it can be said that male teachers group has little weak opinion than female teachers group.

reliability as it is greater than 0.70. The mean values of responses of all 263 respondents calculated by SPSS for each question of second statement are given below:

Either of the p-value .578 and .580 is greater than .05 and thus hypothesis, male teachers group and female teachers group do not differ in their opinion regarding the statement: Training results in various benefits, is accepted which means there is no significant difference between opinion of male teachers group and female teachers group.

**Table 8**

Reliability Statistics			
	Mean	Std. Deviation	N
TD2_1	2.0000	.00000	263
TD2_2	2.0913	.39947	263
TD2_3	2.1141	.33027	263
TD2_4	2.4563	.84086	263
Overall	2.1654	0.3927	263

The overall mean value is 2.16, which is less than 3.39 and thus is low suggesting overall response is disagreeing to the statement: Training needs are identified through all the sources.

**Statement 2:** Training needs are identified through all the sources

Hypothesis Testing  
The data given below is of professors and associate professors.

TD2	Reliability Statistics	Cronbach's Alpha	.712	N of Items	4
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The value here is 0.712 which shows that data stands good on

**Table 9**

Group Statistics				
	Designation	N	Mean	Std. Deviation
Td2avg	Professor	11	2.1818	.25226
	Asso. Professor	30	2.1667	.33045

  

Independent Samples Test				
		Levene's Test for Equality of Variances		t-test for Equality of Means
		F	Sig.	Sig. (2-tailed)
Td2avg	Equal variances assumed	.038	.847	.891
	Equal variances not assumed			.877

As shown above, for all four statements the mean values against professor (2.18) and associate professor (2.16) can be considered to be low which means both professor and associate professor disagree to the statement: Training needs are identified through all the sources. Further, the mean value of professor is little more than associate professor so it can be said that professor has little strong opinion than associate professor.

Either of the p-value. 891 and. 877 is greater than. 05 and thus hypothesis, professor and associate professor do not differ in their opinion regarding the statement: Training needs are identified through all the sources, is accepted which means there is no significant difference between opinions of professor and associate professor.  
The data given below is of professors and assistant professors.

**Table 10**

Group Statistics				
	Designation	N	Mean	Std. Deviation
Td2avg	Professor	11	2.1818	.25226
	Asstt. Professor	222	2.1644	.32608

  

Independent Samples Test				
		Levene's Test for Equality of Variances		t-test for Equality of Means
		F	Sig.	Sig. (2-tailed)
Td2avg	Equal variances assumed	.106	.745	.862
	Equal variances not assumed			.830

As shown above, for all four statements the mean values against professor (2.18) and assistant professor (2.16) can be considered to be low which means both professor and associate professor disagree to the statement: Training needs are identified through all the sources. Further, the mean value of professor is little more than assistant professor. It can be said that professor has little strong opinion than assistant professor.

Either of the p-value. 862 and. 830 is greater than. 05 and thus hypothesis, professor and assistant professor do not differ in their opinion regarding the statement: Training needs are identified through all the sources, is accepted which means there is no significant difference between opinions of professor and assistant professor.  
The data given below is of associate professors and assistant professors.

**Table 11**

Group Statistics				
	Designation	N	Mean	Std. Deviation
Td2Avg	Asso Professor	30	2.1667	.33045
	Asstt. Professor	222	2.1644	.32608

  

Independent Samples Test				
		Levene's Test for Equality of Variances		t-test for Equality of Means
		F	Sig.	Sig. (2-tailed)
Td2avg	Equal variances assumed	.033	.856	.972
	Equal variances not assumed			.972

As shown above, for all four statements the mean values against associate professor (2.16) and assistant professor (2.16) can be considered to be low which means both associate professor and assistant professor disagree to the statement: Training needs are identified through all the sources. Further, the mean value of associate professor is little more than assistant professor so it can be said that associate professor has little strong opinion than assistant professor.

Either of the p-value (sig.- 2-tailed) is. 972 which is greater than. 05 and thus hypothesis, associate professor and assistant professor do not differ in their opinion regarding the statement: Training needs are identified through all the sources, is accepted which means there is no significant difference between opinions of professor and assistant professor.  
The data given below is of male and female teachers.

**Table 12**

Group Statistics				
	Gender	N	Mean	Std. Deviation
Td2avg	Male	167	2.1737	.32667
	Female	96	2.1510	.31722

  

Independent Samples Test				
		Levene's Test for Equality of Variances		t-test for Equality of Means
		F	Sig.	Sig. (2-tailed)
Td2avg	Equal variances assumed	.704	.402	.585
	Equal variances not assumed			.583

As shown above, for all four statements the mean values against male (2.17) and female teachers (2.15) can be considered to be low which means both male teachers and female teachers disagree to the statement: Training needs are identified through all the sources. Further, the mean value of male group and female group are very near suggesting that there opinion is almost similar.

0.585 and 0.583, either of the p-value i.e. sig. (2-tailed) is greater than .05 and thus hypothesis, male teacher and female teacher do not differ in their opinion regarding the statement: Training needs are identified through all the sources, is accepted which means there is no significant difference between opinion of male group and female group.

**Statement 3:** Formal Stages of Training Process is followed

<b>TD3</b>	<b>Reliability Statistics</b>	Cronbach's Alpha	.712	N of Items	4
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The value here is 0.712 which shows that data stands good on

reliability as it is greater than 0.70.

The mean values of responses of all 263 respondents calculated by SPSS for each question of third statement are given below:

**Table 13**

Reliability Statistics			
	Mean	Std. Deviation	N
TD3_1	2.3118	.72689	263
TD3_2	2.1863	.55900	263
TD3_3	1.9848	.12262	263
TD3_4	1.9848	.12262	263
Overall	2.1169	0.38278	263

The overall mean value i.e. 2.12 which is less than 3.39 and thus is low suggesting overall response disagreeing to the statement: Formal Stages of Training Process is followed.

Hypothesis Testing

The data given below is of professors and associate professors.

**Table 14**

Group Statistics				
	Designation	N	Mean	Std. Deviation
Td3avg	Professor	11	1.9773	.37839
	Asso. Professor	30	2.1667	.35558

  

Independent Samples Test				
		Levene's Test for Equality of Variances		t-test for Equality of Means
		F	Sig.	Sig. (2-tailed)
Td3avg	Equal variances assumed	1.239	.273	.145
	Equal variances not assumed			.167

As shown above, for all four statements the mean values against professor (1.98) and associate professor (2.17) can be considered to be low which means both professor and associate professor disagree to the statement: Formal Stages of Training Process is followed. Further, the mean value of professor is little less than associate professor. It can be said that professor has little weak opinion than associate professor.

Either of the p-value i.e. sig. (2-tailed). 145 and .167 is greater than .05 and thus hypothesis, professor and associate professor do not differ in their opinion regarding the statement: Formal Stages of Training Process is followed, is accepted which means there is no significant difference between opinions of professor and associate professor.

The data given below is of professors and assistant professors.

**Table 15**

Group Statistics				
	Designation	N	Mean	Std. Deviation
TD3AVG	Professor	11	1.9773	.37839
	Asstt. Professor	222	2.1171	.28898

  

Independent Samples Test				
		Levene's Test for Equality of Variances		t-test for Equality of Means
		F	Sig.	Sig. (2-tailed)
TD3AVG	Equal variances assumed	1.239	.273	.145
	Equal variances not assumed			.167

As shown above, for all four statements the mean values against professor (1.98) and assistant professor (2.12) can be considered to be which means both professor and assistant professor disagree to the statement: Formal Stages of Training Process is followed. Further, the mean value of professor is little less than assistant professor so it can be said that professor has little weak opinion than assistant professor. Either of the p-value i.e. sig. (2-tailed). 124 and. 253 is greater

than. 05 and thus hypothesis, professor and assistant professor do not differ in their opinion regarding the statement: Formal Stages of Training Process is followed, is accepted which means there is no significant difference between opinions of professor and assistant professor. The data given below is of associate professors and assistant professors.

**Table 16**

Group Statistics				
	Designation	N	Mean	Std. Deviation
Td3avg	Asso Professor	30	2.1667	.35558
	Asstt. Professor	222	2.1171	.28898

  

Independent Samples Test				
		Levene's Test for Equality of Variances		t-test for Equality of Means
		F	Sig.	Sig. (2-tailed)
Td3avg	Equal variances assumed	2.802	.095	.393
	Equal variances not assumed			.470

As shown above, for all four statements the mean values against associate professor (2.17) and assistant professor (2.12) can be considered to be low which means both associate professor and assistant professor disagree to the statement: Formal Stages of Training Process is followed. Further, the mean value of associate professor is little more than assistant professor so it can be said that associate professor has little strong opinion than assistant professor. The standard deviation value shows that the two groups are not

very far to each other on variance. Either of the p-value i.e. sig. (2-tailed). 393 and. 470 is greater than. 05 and thus hypothesis, associate professor and assistant professor do not differ in their opinion regarding the statement: Formal Stages of Training Process is followed, is accepted which means there is no significant difference between opinions of associate professor and assistant professor. The data given below is of male and female teachers.

**Table 17**

Group Statistics				
	Gender	N	Mean	Std. Deviation
Td3avg	Male	167	2.1243	.30542
	Female	96	2.1042	.29617

  

Independent Samples Test				
		Levene's Test for Equality of Variances		t-test for Equality of Means
		F	Sig.	Sig. (2-tailed)
Td3avg	Equal variances assumed	.428	.514	.604
	Equal variances not assumed			.601

As shown above, for all four statements the mean values against male teacher (2.12) and female teacher (2.10) can be considered to be low which means both male teacher and female teacher disagree to the statement: Formal Stages of Training Process is followed. Further, the mean value of male teacher is little more than female teacher. It can be said that male teacher has little strong opinion than female teacher. Either of the p-value i.e. sig. (2-tailed). 604 and. 601 is greater than. 05 and thus hypothesis, male teacher and female teacher do not differ in their opinion regarding the statement: Formal Stages of Training Process is followed, is accepted which means there is no significant difference between opinions of male teacher and female teacher.

benefits, Training needs are identified through all the sources, Formal stages of training process is followed and to know whether the opinions differs between two groups. The teachers teaching in engineering colleges were taken as respondents and the same respondents were divided into two category i.e designation wise i.e. professor, associate professor and assistant professor and later as gender wise i.e. male teachers and female teachers. Later, four hypotheses were constructed for each statement and later tested using t-test. The hypotheses were comparing the status of opinions between two members of same category. The opinion found regarding the statements are as follows:  
Regarding the statement, training results in various benefits all the respondents were positive but for the other two statements, training needs are identified through all the sources and formal stages of training process is followed, opinions of respondents group were negative.

**6. Conclusions**

This study was conducted to know the opinions of the respondents on three statements: Training results in various

The hypothesis, the professor and associate professor group, the professor and assistant professor group, the associate professor and assistant professor group, and male teachers and female teachers group do not differ in their opinions were accepted. This means that whatever opinion the respondents group formed were same.

This shows that in perception of teachers whether professor, associate professor, assistant professor, male or female, training results in various benefits to them. Regarding the statements, training needs are identified through all the sources and formal stages of training process is followed, all the respondents group disagree. With this, it can be concluded that the training practices is not followed in engineering institutions very well.

### 7. Future

With reference to this paper there can be future study on training and development in other states of India and can be extended to other HRD practices in same pattern.

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