

An Empirical Study On Impact Of Demographic Factors On Determining The Training Needs Of Supervisors

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INTRODUCTION

Organizations in general and Indian organizations, in particular, are presently forced to operate in a turbulent environment due to globalization. Such organizations need to have experienced as well as well trained employees to perform the activities in such a way to meet the global competition. Rapid changes in the environment have not only made the jobs more complex, but have also created increased pressures for the organizations to readapt the products and services offered to compete in this fast changing globalized scenario. Therefore, in a highly competitive environment, training is an inevitable and the most vital activity, which is a must for maintaining a viable and knowledgeable workforce.

Every organization must have not only experienced and well trained employees to perform the activities for them, but should also have efficient supervisors so that they can derive quality work from the employees. In a rapidly changing business scenario, training is an activity, which is a must for maintaining viable and knowledgeable supervisors. In case, the current job occupants (supervisors) are equipped enough to meet the challenges of change, training is not required, otherwise, training is necessary to increase the versatility and adaptability of supervisors.

Training needs are felt by the supervisors when they find / perceive deviation between standard performance and actual performance of its employees. It is not that only workers need training; of course, the workers need training to operate machines, work effectively and efficiently and to avoid accidents, etc., simultaneously, supervisors also need to be trained and developed to grow and acquire maturity of thought and action.

Success of any training programme largely depends upon proper identification of training needs. The success and growth of an organization depends largely upon the caliber and performance of its supervisors, as they are the leaders of the work-force. Therefore, every organization must take a stringent effort to improve the quality of the supervisors, for which, it should meticulously design a supervisory training programme. Every training programme must be related to the specific needs of the individual supervisors. Hence, the assessment of training needs becomes a prerequisite for designing and conducting a training programme.

NEED FOR TRAINING

Training is the act of improving one's knowledge and skill to improve his / her job performance. Training is job-oriented. It bridges the gap between what the employee has and what the job demands. For that matter, imparting training to employees working in all organized sectors of human activity is no longer a matter of debate. As a matter of fact, of late, the need for training has been recognized as an essential activity not only in the business organizations, but also in academic institutions, professional bodies and the government departments. For example, attending one orientation and two refresher courses has been made compulsory for the university / college teachers with an objective to improve their knowledge and skill for improving their job (teaching) performance. Several conditions have contributed to make the organizations realize and recognize the need for imparting training to their employees.

Clement Sudhakar and Reeves Wesley (2000) have listed the need for training, which is as follows:

- ✿ To increase productivity;
- ✿ To improve quality;
- ✿ To help a company fulfill its future personal needs;

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- ✿ To improve organizational climate;
- ✿ To improve health and safety;
- ✿ To prevent obsolescence;
- ✿ To enhance personal growth.

STUDIES ON TRAINING NEEDS ASSESSMENT (TNA)

Employees are likely to need training under certain conditions. A training need assessment is a process for exploring these conditions and determining exactly what training is needed. The basic needs assessment is conducted from three different perspectives or levels of analysis. These are *organizational analysis, task analysis and person analysis*.

✿ **McGhee and Thayer (1961)** pointed that assessment of training needs involves three types of analysis: organization, operational (task) and person analysis. For the past thirty years, theoretical and empirical perspectives on the identification of training needs within organizations have been based upon this tripartite framework. Further, they proposed that needs' analysis should be undertaken at the organization level to determine where training initiatives should best be directed in the pursuance of organizational objectives. Finally, they stressed that the incumbent is a key source of information about the skills needed to perform the job adequately.

✿ **Morano (1973)** contents that employees are aware of their skill weaknesses and performance deficiencies and, therefore, are in the best position to determine their own training needs. Needs' assessment is extremely important for trainers in order to plan, manage and allocate program resources, and evaluate training program results. They further pointed out that in public sector organizations, because training resources are limited through lack of funding or lack of organizational planning, there is a low level of training skills and unavailability of other training resources; a needs' assessment is necessary to obtain the most from the training dollar.

✿ **Ozgediz (1983)** pointed out that assessing training needs by performance reports or by bosses' views does not always reflect the true situation and needs of employees, because they may be unclear, may not have been prepared recently, or may be subjected to family, kinship, tribalism and friendship ties. He further stated that the public sector training is often treated as a concrete event, rather than part of an overall programme of organization improvement; few trainees are selected on the basis of greatest need, as bureaucratic policies and patronage play a more important role. Also, another researcher (**Smith 1977**) argued that in most developing countries, individuals are selected for training for reasons other than training needs.

✿ **Bittel and Ramsey (1983)** conducted a national-level survey to identify the knowledge and skill requirements of supervisors (N=7,000) from a variety of organizations. The survey included 18 typical knowledge of skills requirements, including skills such as: talking to employees on a one-to-one basis; planning and controlling; use of personal time; motivating employees; and counseling an employee. This study concluded that supervisors' greatest confidence was in general human relations skills, communication, motivation and performance appraisal. Supervisors showed less confidence in specific administrative skills, particularly in policies and procedures, and they had least confidence in statistical skills, computer applications and improving productivity.

✿ The article written by **Minocha, O.P (1994)** on "*Training In Public Sector Undertakings: A Systematic Approach*" revealed that assessment of training needs, which is an essential prerequisite of a training programme, is not normally being conducted in public sector undertakings.

✿ Training programmes' effectiveness can clearly be influenced by the success in identifying the training needs, because of the important role that needs' assessment can play in identifying individuals who must be trained, designing training programmes that relate to the needs of both individuals and organizations, outlining the required time, determining objectives and required skills and required resources for training programmes can be identified, which leads to reduced costs (**Bee and Bee, 1994**).

✿ **Ronald J. Burke (1996)** examined in his study, "*Training needs at different organizational levels within a professional services firm*" whether women and men at similar organizational levels report the same training needs and whether women and men at different organizational levels report similar or different training needs. The result of the study indicated that women and men reported the same level of training needs at the same level, but at the same time, women and men expressed a mixed response at different organizational levels.

✿ **Punia, B.K. (2002)** identified the training needs of supervisors of an Indian organization. The study recommended that supervisors should be trained in interpersonal relations, conflict management, delegating skills, positive thinking, communication and listening, value system, supervision skills, motivating skills and time management. Another research study of **Chinnadurai and Udayasuriyan (2006)** identified supervisory training needs of supervisory of power generating public sector organization as to acquire new skills in the profession, positive attitude with others, change the attitude of subordinates, techniques of counselling and computer related applications.

✿ **Fredric and Lyme (2003)** conducted a study on, “*Assessing Training Needs: A Skills Approach*”, the concern of this study was to examine the training needs of supervisors based on more objective variables, such as age, education, size of government and number of employees supervised. Differences were identified. Age and education had negative associations with training needs, which were predominantly human relations or human resources oriented. Older, more educated supervisors have less need for this type of training.

✿ **Peters and Davidson (2006)** stated that owing to a vast change in commercial and economic activities, organizational strategy and global competition, the skills needed for the supervisors of different hierarchies in the organization of the new millennium are quite different from those needed 20 years ago. In consequence, training has changed as well. In this context, they examined whether the supervisors at similar hierarchies working in different departments report the same training needs; whether the supervisors of different hierarchies working in the same department report different level of training needs. The results of the findings of their study revealed that the supervisors at similar hierarchies working in different departments reported almost same level of training needs, whereas the supervisors of different hierarchies reported a different level of training needs.

✿ The project of **Phyllis Tharenou (2006)** concerned the assessment of senior and middle level supervisors' training needs by self-reported questionnaire, and the link between such identified needs and supervisors' preferences for training strategies. It was found that senior and middle level supervisors rated the degree of training they needed as less than their subordinates rated for their positions. Self-reported training needs could be described by an overall general management dimension, whereas, supervisors' preferred training strategies were separate and specific supervisors' preferred training strategies and attitudes towards training were not related to their training needs.

✿ A study of **Cathy H.C. Hsu (2007)** identified public enterprise supervisors' perceptions of training needs, the degree of their learning interest on selected topics, and their demographic characteristics (age, sex, education and experience) using a self-developed research instrument. Significant differences were found between perceptions of training needs and learning interests on all topics, as well as between selected demographic characteristics on perceptions of training needs and learning interest.

✿ **Dalun Zhang et al. (2008)** conducted a study to investigate the training needs of certain supervisors working in Mines of various parts of Congo. Questionnaires developed by the authors were mailed to 82 different supervisors; fifty-two (63%) surveys were completed and returned. Respondents of this study ranged in age from 25 to 63 years; 10(19%) were females, and remaining 42(81%) were males. The results of the study revealed that respondent's age, and gender made a difference in terms of preferred training needs.

✿ **Kishore Kumar Bansal (2008)** conducted supervisory training needs analysis (TNA) in a coal mine, situated in northern part of India. The respondents of the study were supervisors and chief engineers (N = 75) of the coal mine. The results of the study led the researcher to find out the supervisory training needs of these respondents as, training to face the challenges of the organization, to improve the quality of work-life, to increase supervision skills, training in managing conflicts, training in-office management, training in computer-related tasks and training to learn new techniques for the job. The study also found that there was no significant difference between the cadres and the management training needs of the chosen respondents.

✿ **Robert J. Froehlich and Donald C. Linkowski (2008)** conducted a study on, “*Training Needs Assessment Among The Supervisors Of Coal Industries*”. The primary purpose of this study was to identify the training needs of supervisors working in various companies of the coal industry. One hundred and sixty-seven supervisors completed the Training need assessment inventory. The self-reported need for training across 10 components of supervisory assignment was described. The current sample reported significantly high ratings of the need for training in acquiring skills in profession, positive attitude with others, computer related areas, leadership qualities, performance appraisal,

communication, quality of work life, increasing organizational commitment, personality and time management.

✿ **Tommy Y. Lo (2008)** conducted a study titled, '*Training Programme For Supervisors: An Element In Quality Assurance*' in a Chinese power generating company. The results of the study revealed that the most preferred training programmes by the supervisors were on the topics like, derive quality work, total quality management practices, improving organizational commitment, job involvement, improving leadership qualities, developing decision-making skills, techniques of counseling and improving interpersonal skills.

✿ **Mitchell and Hyde (2009)** found in a survey, that among the training needs of supervisors, interpersonal communication, work coordination and planning were a top priority. They also found in another survey that the important training needs of supervisors were: planning, leadership, problem analysis, and interpersonal skills.

✿ Needs' assessment is extremely important for trainers in order to plan, manage and allocate program resources, and evaluate training program results (**Mitchell and Hyde, 2009**). They further pointed out that in public sector organizations, because training resources are limited through lack of funding or lack of organizational planning, there is a low level of training skills and unavailability of other training resources; a needs' assessment is necessary to obtain the most from the training dollar.

✿ Since the beginning of the 20th century, the authority of supervisors has decreased due to large size of firms and power of workers' union. Now, the supervisor's status has increased again, through automation and the necessity of a more human approach to workers' problems. In this context, an article of **Sergio Ferrari (2009)** described these changes, looks at the job profile of supervisory activities, and identified eight broad areas like, Interpersonal skills, conflict management, quality of work life, organizational commitment, personality, supervision ability, stress management and job oriented knowledge, considers the problems and difficulties of the supervisors' position in relation to management and the workers, and provided examples of Italian Supervisory Training in FIAT, the automobile firm and ALFA, the state-controlled firm.

✿ **Christopher C. Muller and Douglas F. Campbell (2010)** reported the results of a large empirical study, which identified the training needs of three levels of public supervisors of different units from a single, national public service firm. The study specifically investigated the degree to which the views of each level of supervisors differed in regard to the skills required of competent multi-unit supervisors. Significant differences among the three levels of supervisors regarding the skills required were found.

✿ **Kent E. Neupert et al. (2010)** made an attempt to identify the skills necessary in order to succeed in their career and proposed a training program to develop such skills. To determine necessary skills, 74 managers and 97 supervisors of a public enterprise were interviewed using critical incident methodology to identify training needs. Critical incident approach asks respondents to describe the incident, its nature and consequences to provide context for understanding the managers' problems. The managers cited decision-making skills, time management skills, communication skills and cultural skills as most critical to succeed in their career. The supervisors of this study cited cultural understanding and awareness, professional skills, personal skills, interpersonal skills and communication skills.

TRAINING NEEDS FOR SUPERVISORS - AN OVERVIEW

- ✿ Supervisors should be trained on developing interpersonal skills with superiors.
- ✿ They should be trained on improving interpersonal cordiality with colleagues.
- ✿ They should also be trained in managerial skills - such as leadership skills, performance appraisal skills and team building skills.
- ✿ Supervisors should be trained for building smooth rapport.
- ✿ Techniques of counselling and enforcing discipline are other areas of training for supervisors.
- ✿ They should be trained in the skills of communicating, listening and feedback.
- ✿ Training on grievance redressal and inter -department cooperation must be imparted to supervisors.
- ✿ Supervisors should also be trained in managing conflicts.

THE PRESENT STUDY

The present study is an exploratory study, based on self reported level of training needs obtained from a sample of

supervisors of a single large power generating public sector organization. This study has made an attempt to find out the level of training needs of the supervisory employees in relation with certain demographic variables namely, Gender, Age, Marital Status, Level of Educational Qualification. Place of work and the Length of experience. Therefore, the following objectives and hypotheses were framed for this study.

❖ OBJECTIVES

- ❖ To find out the training needs of the supervisors for Interpersonal Skills Development.
- ❖ To examine the influence of certain demographic factors of the supervisors on their training needs.

❖ HYPOTHESES

H1	:	The supervisors do not differ in their level of training needs with respect to gender.
H2	:	The supervisors of different age groups do not differ in their training needs.
H3	:	Marital status of the supervisors does not influence their training needs.
H4	:	Educational qualification does not influence the training needs of the supervisors.
H5	:	The supervisors working in different divisions do not differ in their training needs.
H6	:	The length of experience of the supervisors does not influence their training needs.

❖ RESEARCH DESIGN

The purpose of the present study is to identify the level of training needs of the supervisors working in three different divisions of a public sector organization. In order to achieve the purpose of the study, a survey design was employed. The survey design was selected because it is the best suited method to collect data of a large group of people. A survey is a way of obtaining self-reported information about the attitudes, beliefs, opinions, behaviours and other characteristics of a population (**Samuel McClelland, 2004**). This survey design was chosen because it was the best way to get information from many people at one time, unlike interviews and other methods that demand much time. As time is critical in conducting the study, the survey design is the most appropriate way and a natural choice to administer standardized questionnaires to many people.

❖ POPULATION AND SAMPLE

The population of the study consists of supervisory employees working in various divisions of the organization. The population of the supervisors of the organization was 1042. The sample that was taken from the organization was based on proportionate random sampling. The samples were classified according to the respondents' place of work (divisions). The same percentage of respondents was taken from the three major divisions of the organization being studied. The percentage that was taken from each division was thirty per cent (30%). This type of random sampling was used because the random selection results in equal opportunity to be given for the respondents of various divisions of the organization (**Robinson, K. 1981**).

The required sample size was determined based on a method suggested by **Goldstein, (1986)**. A method for determining the required minimum sample size was used to ensure adequate population representativeness of a survey. The details of the sample size required for the study are exhibited in Table 1. The respondents were then classified according to their demographic characteristics, and the place of work to reflect the various divisions in the sample.

Table 1 : Sample Size Required For The Study

Organization	Population	At 30% required sample size
Power generating public sector organisation	1042	313

The Table 2 presents the demographic characteristics of the sample. There were more number of male supervisors than female supervisors, this may be a reason that employing women for supervisory assignment in coal and power industry is generally less in numbers. The supervisors of about 12 per cent were of below 30 years old, more than half

of the sample size (68 per cent) were from the age group 31-45 years and 20 per cent of the supervisors were chosen as respondents from the age group of above 45 years. The majority of the respondents of the sample (89 per cent) were married and the remaining respondents (about only 11 per cent) were unmarried. There were about 91 supervisors (29 per cent) out of 313 supervisors having Diploma as their educational qualification, 56 supervisors had Arts and Science degree and major portion of the respondents (53 per cent) had Professional degrees like B.E., M.E., M.B.A. and MCA as educational qualifications. More or less, equal numbers of supervisors had been chosen as respondents from Mines (43 per cent) and Thermal Power Stations (41 per cent) and the remaining supervisors (16 per cent) were drawn from the Corporate Office as respondents for this study. Minor portion (8 per cent) of the sample had less than 10 years of experience, about 71 per cent of the sample had the length of experience between 11 and 20 years and 66 respondents (21 per cent) out of 313 respondents had an experience of above 20 years.

Table 2 : Demographic Characteristics of The Respondents

Characteristics	N	%*
Gender		
Male	244	78
Female	69	22
Age		
Below 30 years	38	12
31-45 years	213	68
Above 45 years	62	20
Marital Status		
Married	279	89
Unmarried	34	11
Educational Qualification		
Diploma	91	29
Arts & Science Degree	56	18
Professional Degree	166	53
Place of Work (Division)		
Mines	135	43
Thermal Power Stations	28	41
Corporate Office	50	16
Experience		
Below 10 years	25	8
11-20 years	222	71
Above 20 yrs.	66	21

* Expressed in rounded of percentage

❁ TOOL

The data had been extracted through a structured questionnaire namely '**Supervisory Training Needs Assessment Scale**' developed by **Chinnadurai and Udayasuriyan, 2005**. The scale comprising of 19 items was designed to elicit detailed information with respect to the assessment of supervisory training needs pertaining to the training dimension -Interpersonal Skills Development.

❁ METHODOLOGY

The questionnaires were distributed to the respondents personally, when they reported for attending the supervisory training programmes. All the respondents were the participants of the training programmes, they were contacted and the questionnaires were filled by them and were collected before the programme began.

The supervisory training needs assessment variables were evaluated on the pre-decided scale as shown in the exhibit:

Strongly agree - 5 points	Disagree - 2 points
Agree - 4 points	Strongly Disagree - 1 point
Neutral - 3 points	

ANALYSIS AND DISCUSSION

The analysis was centered around to find answers for the two basic research questions, (i) What are the levels of training needs of the supervisors pertaining to 19 different training needs for Interpersonal Skills Development and

Table 3 : Mean Scores Of The Supervisors' Training Needs For Interpersonal Skills Development

	Training Variables	Mean Scores
1.	Interpersonal skills with superiors	4.57
2.	Interpersonal cordiality with colleagues	4.25
3.	Interpersonal skills with subordinates	3.74
4.	Leadership qualities	3.78
5.	Team building skills	3.56
6.	Building smooth rapport	3.67
7.	Understanding others' problems	3.95
8.	Effective communication	3.53
9.	Managing conflicts	3.64
10.	Performance appraisal	4.18
11.	Inter departmental cooperation	4.26
12.	Problems of human relations	3.93
13.	Grievance redressal	3.92
14.	Non-verbal communication	3.95
15.	Effective written communication	3.87
16.	Techniques of counseling	4.23
17.	Emotional balance	3.84
18.	Positive attitude with others	4.03
19.	Mend undesirable behaviour	4.06
	Total	3.95

Figure 1 : Mean Scores Of The Supervisors' Training Needs For Interpersonal Skills Development

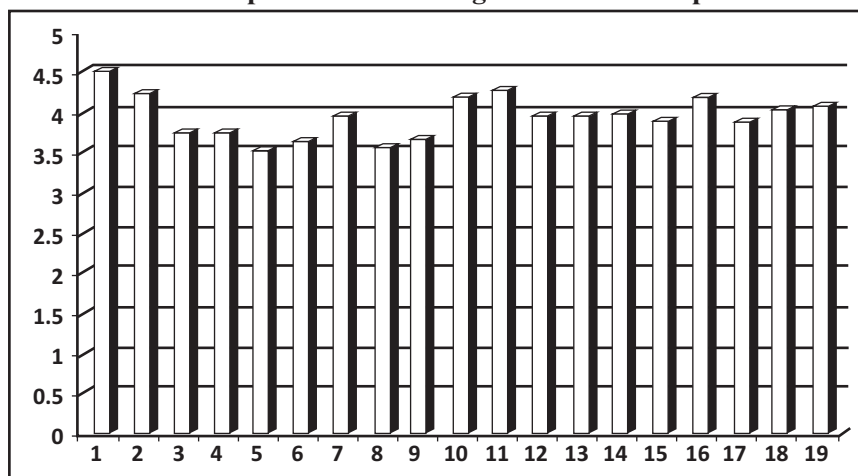


Table 4 : Mean Scores of Interpersonal Skills Development Training Needs of Supervisors

Training Variables	Gender		Age			Marital		Education			Division			Experience		
	Male	Female	Below 30 yrs.	31 - 45 yrs.	Above 45 yrs.	Married	Unmarried	Diplo- ma	Arts/ Science Degree	Profe- ssional Degree	Mines	Thermal Stations	Corpo- rate Office	Below than 10 yrs.	11 - 20 yrs.	Above 20 yrs.
New skills in the profession	4.58	4.51	5.00	4.51	4.62	4.57	5.00	4.77	4.42	4.58	4.60	4.58	4.49	4.66	4.60	4.49
Leadership skills	4.33	4.15	4.75	4.17	4.52	4.31	4.80	4.12	4.24	4.39	4.26	4.35	4.27	4.16	4.25	4.38
Positive attitude with others	3.81	3.88	4.08	3.68	4.07	3.87	3.05	3.41	3.79	3.96	3.60	3.97	3.90	3.53	3.71	4.01
Change the attitude of subordinates	3.86	3.61	4.08	3.83	3.76	3.87	3.30	3.53	3.65	3.99	3.65	3.99	3.81	3.91	3.85	3.76
Planning skills	3.58	3.51	3.41	3.45	3.83	3.62	3.05	3.47	3.24	3.74	3.51	3.51	3.77	3.53	3.39	3.82
organization skills	3.72	3.61	4.08	3.67	3.73	3.72	3.80	3.53	3.42	3.87	3.63	3.66	3.90	3.78	3.60	3.82
Techniques of counseling	4.06	3.88	4.41	3.91	4.24	4.06	4.05	3.94	3.83	4.15	3.96	4.12	3.99	3.78	3.94	4.20
Enforce discipline	3.60	3.70	3.75	3.56	3.69	3.61	4.30	3.53	3.33	3.75	3.32	3.76	3.81	3.78	3.46	3.76
Supervision skills	3.70	3.97	3.41	3.70	3.79	3.77	3.30	3.94	3.42	3.79	3.57	3.89	3.68	3.66	3.66	3.82
Communication skills	4.27	4.15	4.08	4.17	4.41	4.28	4.05	4.18	4.06	4.36	4.18	4.25	4.36	3.78	4.27	4.30
Team building	4.34	4.33	4.08	4.23	4.55	4.35	4.55	4.35	4.15	4.41	4.18	4.38	4.49	4.28	4.31	4.36
Motivating skills	4.02	3.97	4.08	4.05	3.90	4.05	3.80	4.12	3.47	4.20	3.76	4.22	4.04	3.91	4.04	3.98
Awareness of safety measures	4.02	4.06	4.75	3.93	4.14	4.05	4.05	3.65	4.06	4.13	3.82	4.07	4.27	4.53	3.91	4.06
Creativity	4.02	4.24	3.41	3.94	4.31	4.10	3.30	4.12	4.01	4.05	3.96	4.04	4.18	3.91	3.93	4.22
Ability to analyze problems	3.91	4.33	4.41	3.79	4.24	3.96	4.30	3.94	3.88	3.99	3.74	4.10	4.04	4.03	3.81	4.11
Computer related applications	4.23	4.51	4.41	4.14	4.48	4.28	4.30	4.41	4.11	4.29	4.15	4.28	4.40	4.28	4.14	4.41
Directing skills	3.88	4.33	4.08	3.93	3.90	3.97	3.55	3.53	3.74	4.13	3.71	4.04	4.09	3.91	3.89	3.98
Emotional Intelligence	4.06	4.33	4.08	3.96	4.35	4.12	3.80	4.18	3.97	4.11	3.76	4.28	4.27	4.16	3.98	4.20
Controlling skills	4.15	4.06	4.08	4.07	4.28	4.15	4.30	3.88	3.97	4.29	4.07	4.12	4.27	3.91	4.08	4.25
Total	4.01	4.06	4.13	3.93	4.15	4.04	3.93	3.93	3.83	4.11	3.86	4.08	4.11	3.97	3.94	4.10

Source: Computed

Attitude? **(ii)** Do the demographic factors of supervisors influence their training needs for Interpersonal Skills Development?

An overview of the data presented in the Table 3 reveals that all the supervisory respondents expressed different level of training needs for different training variables. Among these 19 different training variables, the supervisors assigned maximum score (above 4 points) for the variables such as, interpersonal skills with superiors, interpersonal cordiality with colleagues, performance appraisal, work motivation, techniques of counseling, positive attitude with others and mend undesirable behaviour. However, they assigned considerable amount of score (more than 3.5 points) to the rest of the training variables, which in turn indicates that they had a high inclination towards the training programmes in these 19 various training areas as their level of training need fell between neutral and agree categories in the Likert's five-point rating scale.

To find the answer for another research question, Do the demographic factors of supervisors influence their training needs for Interpersonal Skills Development?, the hypotheses framed for the study were tested by using the statistical tools '**t**' test and **One-Way ANOVA**. The summarized results of these tests are presented in the Tables 5 and 6, and the same are discussed here.

Table 5 : Results of 't' Test For Demographic Characteristics And IPSD Training Needs

Training Need dimension	Gender						Marital Status					
	Male		Female		't' value	'p' value	Married		Unmarried		't' value	'p' value
	Mean	S.D	Mean	S.D			Mean	S.D	Mean	S.D		
	75.12	8.70	76.44	10.15	0.89	0.37	75.36	8.57	74.22	10.35	0.64	0.52

Source: Computed

*Interpersonal Skills Development

HYPOTHESIS - I

Null hypothesis H_0 : There is no significant difference between Male and Female supervisors in their training needs for Interpersonal Skills Development (IPSD).

The **Table 5** indicates that the calculated 'p' value (0.37) for the training need dimension "IPSD" is found to be greater than 0.05 at 5% level of significance. Since the calculated 'p' value for the training dimension IPSD is greater than 0.05, the null hypothesis H_0 is accepted. Hence, it can be concluded that there is no significant difference between Male and Female supervisors in their training needs for Interpersonal Skills Development.

HYPOTHESIS - II

Null hypothesis H_0 : There is no significant difference among the supervisors in their training needs for Interpersonal Skills Development with respect to Age group.

Table 6 : Results of One-Way ANOVA For Demographic Characteristics and IPSD Training Needs

Training Need dimension	Age group					Educational Qualification					Place of Work (Division)					Experience				
	Below 30 years	31-45 years	Above 45 years	'F' value	'p' value	Diploma	Arts/Science Degree	Professional Degree	'F' value	'p' value	Mines	Thermal Power Stations	Corporate office	'F' value	'p' value	Below 10 years	11-20 years	Above 20 years	'F' value	'p' value
IPSD *	73.90	75.23	75.79	0.67	0.50	74.78	74.21	75.79	0.62	0.35	75.89	75.14	74.52	0.62	0.53	74.80	75.52	75.17	0.14	0.86

Source: Computed

*Interpersonal Skills Development

The **Table 6** shows that the calculated 'p' value for IPSD is 0.50, which is greater than the value 0.05. So, it is needless

to say that H_0 is accepted. Results of the One-way ANOVA reveal that there is no significant difference among the supervisors in their training needs towards the training dimension -IPSD.

HYPOTHESIS - III

Null hypothesis H_0 : Marital Status does not influence the training needs of the supervisors for Interpersonal Skills Development.

It could be noted from the data presented in the **Table 5** that the calculated 'p' value (0.52) for the dimension IPSD is found to be greater than 0.05. Since the 'p' value, calculated for the dimension IPSD is greater than 0.05, it is clear that the null hypothesis H_0 is accepted. Hence, it can be understood that the demographic variable, marital status does not influence the training needs of supervisors related to the dimension IPSD.

HYPOTHESIS - IV

Null hypothesis H_0 : The supervisors of different Educational Qualifications do not differ in their training needs towards the training dimension IPSD.

It is also known from the **Table 6** that the 'p' value (0.35) calculated for the dimension IPSD is greater than 0.05. Since, the calculated 'p' value (0.35) is greater than 0.05 at 5% level of significance, the null hypothesis H_0 is accepted. Hence, it is implied that the educational qualification of the supervisors does not influence their training needs.

HYPOTHESIS - V

Null hypothesis H_0 : The Place of Work (Division) of the supervisory employees does not influence their training needs for Interpersonal Skills Development.

The **Table 6** presents the 'p' value as 0.53 for the dimension IPSD. Since the calculated 'p' value is greater than 0.05 at 5% level of significance, the null hypothesis H_0 is accepted. So, it is inferred from the results of One-Way ANOVA, that the place of work of the supervisors does not influence their training needs for Interpersonal Skills Development.

HYPOTHESIS - VI

Null hypothesis H_0 : Supervisors having different Length of Experience do not differ in their training needs towards the training dimension IPSD.

From the data presented in the **Table 6**, it is clear that the calculated 'p' value (0.86), for the training dimension IPSD is greater than 0.05 at 5% level of significance. Since, the 'p' value is greater than 0.05, the H_0 is accepted for the training need dimension IPSD. Hence, it could be concluded that the length of experience of the supervisors does not influence their training needs.

FINDINGS

The collected data from the supervisory respondents were converted as means scores. The careful analysis of the mean scores (**Refer to Table 4**) and the analysis of the mean scores led to various interesting findings such as:

- ✿ Both male and female supervisors expressed almost the same level of training need for Interpersonal Skills Development. However, they differ each other in their mean scores assigned by them to the 19 different training variables. This finding falls in line with the findings of **Ronald, J. Burke (1996) and Dalun Zhang et al. (2008)**.
- ✿ The older and younger supervisors fall in line with their level of training needs and the middle aged supervisors expressed slightly low level of training need than their younger and older colleagues/ counterparts. This findings reminds the researchers of the findings of **Fredric and Lyne (2003) and Cathy H.C. Hsu (2007)**.
- ✿ Though the mean scores of married and unmarried supervisors are slightly differed, yet both categories expressed their willingness to attend training programmes for Interpersonal Skills Development (**Dalun Zhang et al., 2008**).
- ✿ The training needs of the supervisors who have Arts/Science degree as their educational qualification are lower than the Diploma and Professional degree holders. In these two categories, the supervisors of diploma holders have

low level of training needs. These findings support the findings of **Fredric and Lyme (2003)** and **Cathy H.C. Hsu (2007)**.

✿ The supervisors working in Mines expressed a low level of training needs than their counterparts working in Thermal Stations and Corporate Office. It is further found that the supervisors working in Thermal stations and Corporate Office expressed same level of training needs.

✿ The training needs of highly experienced supervisors was found to be at a high level and at the same time, the supervisors belonging to low and medium experienced categories expressed almost the same level of inclination towards the training programmes for Interpersonal Skills Development (**Cathy H.C. Hsu, 2007**).

In addition to these findings, it was also found from the results of '**t**' test and **One-Way ANOVA** that no demographic factor (considered for the study) of the supervisors influences their training needs.

SUGGESTIONS FOR POLICY MAKERS

The results of the analysis and interpretation of the data collected from the chosen supervisors threw up various interesting findings, which in turn led to important suggestions, which could be considered by the policy makers while taking policy decisions on identifying Interpersonal Skills Development training needs.

The following are the suggestions to be considered by the policy makers for taking pre-training decisions and while choosing the Interpersonal Skills Development training programmes.

✿ Gender need not to be taken into consideration while choosing the supervisors as trainees for Interpersonal Skills Development programmes.

✿ Since the demographic factor '*Age*' does not influence the training needs of the supervisory employees, it could be ignored while choosing them as participants for the Interpersonal Skills Development training programmes. But at the same time, the Age of the supervisors may be taken into consideration incase they are on the verge of retirement as suggested by **Savita Rastogi (2002)**.

✿ Both unmarried and married category of supervisory employees should be given equal opportunity to take part in the Interpersonal training programmes as trainees.

✿ In general, the educational qualification has nothing to do with the level of training needs of the supervisory employees. However, it is suggested from the results of the analysis and interpretations of the respondents' mean scores of their level of need for Interpersonal Skills Development training programmes, that the supervisors should be given preference for taking part in the Interpersonal Skills Development training programme as trainees, irrespective of their educational qualification.

✿ Though the supervisors of Mines expressed low level of training needs as compared to their counterparts of Thermal Power Stations and Corporate Office, yet they should also be trained along with the supervisors of Thermal Power Stations and Corporate Office in these 19 Interpersonal Skills Development training programmes.

✿ Since the supervisors having high and low level of experience needed more number of supervisory training programmes in relation with the 19 Interpersonal Skills Development training programmes, they should be trained in the related training programmes.

Though the supervisors having medium level of experience (11-20 years) expressed comparatively low level of training needs, yet they should also be given the opportunity to take part in the Interpersonal Skills Development training programmes.

The suggestions offered are based on the influence of various demographic factors on respondents' level of training need and the scoring pattern followed by the supervisory respondents in assigning scores for their Interpersonal Skills Development training needs. The mean scores assigned by the supervisors for their training needs and the influence of demographic factors of the supervisors on their need for IPSD training collectively suggest that:

✿ *Each and every supervisory employee of different divisions, irrespective of his/her demographic characteristics should be given an equal opportunity for participating in the IPSD training programmes as trainees in order to shape and prepare themselves for a more vibrant and turbulent work environment.*

CONCLUSION

This research study reveals various interesting facts. The demographic factors namely - gender, age, marital status, educational qualification, place of work (Division) and the length of experience do not influence the Interpersonal Skills Development training needs of supervisors. It was also found that the IPSD training need level of these supervisors was above the average level. These findings have suggested that all supervisors (N=313) chosen as respondents should be trained in the 19 various Interpersonal Skills Development training programmes.

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