Analyzing For the Future Expectations on Job Satisfaction of **Teachers in Engineering Colleges in Puducherry**

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Abstract: This research paper discusses the future expectations on job satisfaction of teachers in Engineering Colleges at Puducherry. Today, it is generally felt that engineering education has deteriorated because of the mushrooming growth of Engineering Colleges in India. A vast network of mediocre and substandard institutions has strung up due to unplanned and uncontrolled proliferation of ill equipped; ill provided and inadequately staffed colleges with less salary without concern for quality. In spite of various plans and programmes to improve the conditions of teachers, serious attempts have not been made to identify the factors affecting the Job Satisfaction of teachers in Engineering Colleges. It becomes necessary to assess the Job Satisfaction of the Engineering College teachers, so as to nurture the budding Engineers in tune with the present scenario. To achieve the objectives of the present study, the normative survey method was used. Job Satisfaction is analyzed in terms of the future satisfactory conditions of the Engineering College Teachers at Puducherry.

Keywords: Engineering College Teachers, Future Expectations, Job Satisfaction, Statistical Method

INTRODUCTION I.

Job satisfaction is pleasant and positive attitude possessed by an employee towards his job-life. Job satisfaction has been characterized as the feeling of effective responses of a person towards his job. Job satisfaction is the result of various attitudes possessed by the teachers. The teacher has a powerful and abiding influence in the formation of the character of every future citizen. He acts as a pivot for the transmission of intellectual and technical skills and cultural tradition from one generation to the other. The responsibility of the teacher is very important and great. If the plans of the nation are to be fulfilled, it is the teacher who can make the most substantial contribution towards the achievement of the desired goals. Over the years, beginning in the early 1930's, psychologists have endeavored to determine the components of job satisfaction. Though many studies were conducted on Job Satisfaction of teachers, yet these appear to be precious little that has been unequivocally established. The reasons for the difference in findings may be due to the fact that job satisfaction has many different points of variables.

Under the general studies, there were many research findings on Job Satisfaction. These research findings stressed on the pleasant physical surroundings at work, organizational climate, and relationship with colleagues, teaching experience, mental health, teacher's attitude towards students, job expectations and performance, morale, sense of community, job security, commitment towards organization and they have significant relationship with Job Satisfaction. Level of job involvement, administrative effectiveness, teaching competency and job satisfaction did not have any effect on Job Satisfaction. In general, college teachers are more satisfied with their jobs.

Regarding sex as a factor in Job Satisfaction, there were seven research findings on Job Satisfaction. Two findings revealed that women teachers have better Job Satisfaction than male teachers. Another two findings revealed that men teachers have better Job Satisfaction than female teachers. Three findings revealed no significant difference between men and women teachers regarding their job. A study on "Teachers job satisfaction in schools of different levels" and found out that there was no difference in job satisfaction between men and women teachers in respect of their jobs [1]. A study on "School teachers and job satisfaction" reveals that women teachers have better job satisfaction than men teachers [2]. A study on job satisfaction of selected parochial high school teachers in Kansas and found out that there was no significant difference between men and women teachers in their job satisfaction [3]. A study on "Job satisfaction and burn out among Minnesota Teachers" reveals that women teachers have better job satisfaction than men teachers [4]. A study on "A study of job satisfaction among school teachers" reveals that women teachers have better job satisfaction than men teachers [5]. A study on "Job satisfaction of primary school teachers" reveals that considering overall (job satisfaction), women teachers were more satisfied with their job than men teachers [6]. A study on "Job satisfaction of the Harijan welfare school teachers in Tamil Nadu" reveal that women teachers have better job satisfaction than men teachers [7]. To analyze the job satisfaction of teachers in respect of their sex, length of service, age, marital status, type of institution, [8] made a study on "School organizational climate with job satisfaction of teachers". It reveals that female teachers have better satisfaction than their counter parts. A study

of organization commitment, attitude towards work and job satisfaction of postgraduate teachers of Goa [9] reveal that there were differences with respect to gender. A study on "Job satisfaction of secondary school teachers in relation to sex, experience, professional training & salary" found that 70.41% of male teachers and 86.44% of female teachers were satisfied with their job satisfaction [10]. A study on "Attitude towards teaching profession and job satisfaction of women teachers in Coimbatore" and found that job satisfaction is an act of satisfying, fulfillment or gratification. It may be the state of being satisfied; contentment or the cause or means of being satisfied or may be confident acceptance of something as satisfactory, dependable or true [11].

Regarding age as a factor in Job Satisfaction, there were two findings. One revealed that there was upward progression in Job Satisfaction with increasing age and the other over 55 years of age and less than 25 years were the most satisfied in their job. A study of job satisfaction of selected parochial high school teachers in Kansas and observed that there was upward progression in job satisfaction with increasing age [3]. A study on "Job satisfaction and burn out among Minnesota Teachers" and found out those teachers over 55 years of age and less than 25 years were the most satisfied [4]. A study on "Job Satisfaction Status of Primary School Teachers in Ota, Nigeria" and reveals that no significant difference existed on gender basis while there were significant differences on educational qualification and age groups. Consequent upon these findings it is imperative for proprietors of schools to ensure that teachers are not dissatisfied with their job through their inability to consistently provide enabling environment [12]. A study on "Socio - Personnel correlates of Job satisfaction" and concluded that age was positively correlated with job satisfaction. Also they found out that age is more effective correlates of job satisfaction [13]. A study on "Personality correlates of job satisfaction of higher secondary school teachers" and concluded that age appeared to exert an adverse impact on job satisfaction [14]. A study on "Correlates of job satisfaction among different professionals" and concluded that age was positively correlated with job satisfaction [15]. A study on job satisfaction of graduate teachers in Coimbatore and concluded that the younger teachers were more satisfied with their jobs than their elders [16]. A study on "Job satisfaction of primary school teachers" and found that teachers younger in age had higher level of job satisfaction [6]. A study on "Job satisfaction of the Harijan welfare school teachers in Tamil Nadu" had reported that teachers who are above 40 years of age have better Job Satisfaction [7]. A study on "Job satisfaction of teaching assistants of the M.S. University of Baroda" showed that most of the teaching assistants were satisfied with their job responsibility and the social conditions within the department. They did not differ in their level of job satisfaction in terms of age group [17]. A study of organization commitment, attitude towards work and job satisfaction of postgraduate teachers of Goa [9] reveals that there were differences with respect to age. A study on "Occupational Stress and Job Satisfaction among Managers" and found that compared to the middle age that are more or less settled in their personals as well as work like young adults found their jobs much more satisfied [18]. A study on "Job satisfaction of faculty members of veterinary sciences: an analysis" and found that the younger faculty members are more satisfied as compared to those with a longer service period [19].

A study on "Job Satisfaction of Technology and Design Education Teachers in Turkey (Ankara Case)". and found that such variables as gender, age, educational level, experience do not affect all dimensions of satisfaction but they are influential in some aspects of job satisfaction [20]. A study on "Comparative Study of Job Satisfaction among Teachers in Public and Private Engineering Institutions" and found that the overall satisfaction which measured mean scores concluded that job satisfaction of the teachers of public Engineering Institutions is more than that of the teachers of private sector [21]. A study on "Role of Demographic Characteristics on Job Satisfaction" and found that age and job satisfaction was not positively correlated with each other's. The academic staffs from private sector universities were comparatively more satisfied with overall job satisfaction than that of public sector universities [22]. A study on "Design of Fuzzy Job Satisfaction Matrix with Dynamic Performance Criteria" and found that after defuzzifying the rules and computing the distance from ideal status, the gaps were determined and improvement strategies were suggested [23]. A study on "Hierarchical Fuzzy Competition algorithm for Complex Job Shops Scheduling Problem" and revealed that products with fuzzy logic monitor user defined settings and then automatically set the equipment to function at the user's preferred level for a given task [24]. A study on "Utilization of Artificial Intelligence Approach for Assessment of Job Satisfaction" and found that by determining the shifts that have more operators with fewer score and find the weakness each shift, we can begin to correct these shifts in order to achieve higher efficiency [25]. A study on "Application of Expert System with Fuzzy Logic in Teachers' Performance Evaluation" and found that The proposed model produced significant bases for performance assessment and adequate support in decision making, so the research on the issue can be continued. The qualitative variables are mapped into numeric results by implementing the fuzzy expert system's model through various input examples and provided a basis to use the system ranking for further decision making. Thus, the uncertain and qualitative knowledge of the problem domain have been handled absolutely through integration of expert system technology with fuzzy logic concept [26]. A study on "Job Satisfaction Status of Primary School Teachers in Ota, Nigeria" and reveals that no significant difference existed on gender basis while there were significant differences on educational

qualification and age groups [27]. Consequent upon these findings it is imperative for proprietors of schools to ensure that teachers are not dissatisfied with their job through their inability to consistently provide enabling environment.

Today, there is generally a widespread feeling that teachers do not have satisfaction in their job across the spectrum of education. Teachers all over the country often manifest this in protests and strikes. The growing discontentment among teachers has resulted in the fall of standards in education as a whole. At present, in spite of various plans and programmes to improve the service conditions of teachers, serious attempts have not been made to identify the factors affecting their Job Satisfaction. It is therefore considered necessary to conduct an investigation concerning the factors associated with the Job Satisfaction of teachers in Engineering Colleges. Incidently, there is no study available exclusively on Job Satisfaction of teachers in Engineering Colleges in Puducherry. Hence the present study has earnestly been undertaken.

II. SAMPLING PROCEDURE

The population of the study is the Engineering College Teachers at Pondicherry. The population consists of nearly 250 teachers from Engineering College managed by Central Government and Colleges managed by the private bodies at Pondicherry. The stratified random sampling technique was used, to select the sample of Engineering College Teachers. Two strata, namely, Engineering College Teachers from Central Government College (Pondicherry Engineering College (PEC)) and Managed by private bodies (Sri Manakula Vinayagar Engineering College (SMVEC) & Rajiv Gandhi College of Engineering & Technology (RGCET)). From the population, 150 Engineering College Teachers from three different Engineering Colleges were selected. The sample selected is also diagrammed and is shown in Fig. 1. Table 1 shows the complete data collected for the present study.

It is easy to infer that the sample selected for the present study is almost stratified. The selected sample comprises nearly 60% of the population. Also the sample selected is further distributed on the sub sample based on Sex, Age, Marital status, Educational qualification, Subject of specialization, Type of college, Number of periods per week, Promotion received or not received, Teaching experience and Salary per month.

Sl. No.	Strata	Name of the College	Sample selected	Total	Percentage of Sample
1	Central Government College	PEC	78	78	52%
2	Managed by private	SMVEC	37	70	490/
	bodies	RGCET	35	12	40%
	-	150	100		

 Table 1: Sample selected for the present study



HH 48% 🗆 52%

Fig.1: Pie diagram showing the stratification of the sample

Table 2:	Distribution	of Sub	Samples
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Sl.No.	Category	Туре	Total		
1	S	Male	95		
1	Sex	Female	55		
2	A ===	Below 31	80		
2	Age	Above 31	70		
2	Marital	Married	106		
3	Status	Unmarried	44		
4	Type of	Central Government College	78		
4	Institution	Managed by Private Bodies	72		
	Educational	B.E., B.Tech., M.A., M.Sc., M.B.A., M.C.A.	50		
5	Qualification	Ouslification M.E., M.Tech.			
	Qualification	M.Phil., Ph.D.	36		
6	Subject	Engineering	111		
o	Specialization	Science	39		

7	Periods / Week	Less than 17	72
/		More than 17	78
0	Salary /	Below 25000	84
8	Month	Above 25000	66
9	Timely Promotion	Received	61
		Not Received	89
10	Teaching Experience	Less than 10	98
		More than 10	52

The distribution of the sample is diagrammed.



Fig.2: Histogram showing the number of samples in each background variable

- A Sex Male, Female
- B-Age-Below or equal to 31 years, Above 31 years
- C Marital Status Married, Unmarried
- D Type of Institution Central Government College, Managed by Private Bodies
- E Educational Qualification Bachelor of Engineering or Master of Arts & Science, Master of

Engineering or Technology, Master of Philosophy or Doctor of Philosophy

- F Subject of Specialization Engineering, Arts and Science
- G Periods per Week Less than or equal to 17 hours, More than 17 hours
- H Salary per Month Below or equal to Rs 25,000/-, Above Rs 25,000/-
- I Timely Promotion Received, Not Received
- J Teaching Experience Less than or equal to 10 years, More than 10 years

Table 2 shows the distribution of sub samples. It is easy to infer that the sample selected for the present study is almost stratified. The selected sample comprises nearly 60% of the population. Also the sample selected is further distributed on the sub sample based on Sex, Age, Marital status, Type of Institution and Educational Qualifications.

It is easy to infer that educational qualification is alone having three categories the other variables are having only two divisions. The selected sample is scrutinized severely, to make such kind of classifications.

III. METHOD

To achieve the objectives of the present study the normative survey method was used. In this study, 'Job Satisfaction' is alone taken as the independent (Uni-dimensional) variable. The population of the study is the Engineering College Teachers in Puducherry. The population consists of nearly 250 teachers from an Engineering College managed by the Central Government and Colleges managed by the private bodies in Puducherry. The stratified random sampling technique was used to select a sample of 150 Engineering College Teachers. The tool used for the present study is Job Satisfaction Inventory (JSI) constructed and standardized by Jayalakshmi Indiresan (1973) of IIT, New Delhi.

Also the investigator used the 'Personnel data sheet' for finding out the effect of the background variables on job satisfaction of Engineering College Teachers. Descriptive analysis and Differential analysis were used to analyze the data.

IV. DESCRIPTIVE ANALYSIS

The scores of "Job Satisfaction" (future expectations) are found to form a normal distribution with a mean of 74.50 and a standard deviation of 19.27. The median and mode of distribution are formed to be 77.50 and 84.00 respectively.

51. No.	Statistical Meaning	Future Expectations			
1	Mean	74.50			
2	Median	77.50			
3	Mode	84.00			
4	SD	19.27			
5	QD	11.50			
6	SE _M	1.57			
7	SEσ	1.12			
8	Skewness	-0.47			
9	Kurtosis	0.28			
10	Fiduciary limits of Mean	70.45 & 78.55			
11	Fiduciary limits of SD	16.38 & 22.16			

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The sample mean becomes a parameter within the fiduciary limits of 70.45 to 78.55 and is found to be significant at 0.01 levels as to standard error of the mean is computed to be 1.57. With 99 percent confidence, the standard deviation of the sample becomes a parameter within positive fiduciary limits of 16.38 to 22.16, as the standard error of the standard deviation is to be 1.12. The Quartile Deviation is found to be 11.50, which indicates a good index of score density at the middle of the distribution. Considering the central value of the scale namely, 60 it is concluded that the mean score on Job Satisfaction (future expectations) is higher than the average score. The coefficient of skew ness of the distribution is found to be -0.47, which is negatively skewed and consequently the scores are amassed as the left end. The coefficient of kurtosis and the distribution is found to be 0.280, which is a platy kurtic distribution. Hence the scores of Job Satisfaction (future expectations) form a negatively skewed platy kurtic distribution.

Sl. No.	Variable	Sub sample	N	Mean	SD	MD	df	t	Level of significance
1 Sex	Sev	Male	95	73.81	19.10	1.88	149	0.5701	NS
	Sex	Female	55	75.69	19.67	1.00	140	0.3701	
2	Δ ge	Below 31	80	73.48	21.49	2 10	1/18	0.7056	NS
2	Age	Above 31	70	75.67	16.44	2.17	140		
3	Marital Status	Married	106	75.65	18.69	3.02	1/18	1.0025	NS
5	Wallar Status	Unmarried	44	71.73	20.53	5.92	140	1.0925	115
4	Type of	Government	78	75.44	16.02	1.05	149	0.6101	NC
4	Institution	Private	72	73.49	22.33	1.95	140	0.0101	INS
5	Educational Qualification	Bachelor of Engineering or Master of Arts & Science	50	70.40	19.33	6.18	112	1.6603	NS
		Master of Engineering or Master of Technology	64	76.58	20.21				
6	Educational Qualification	Master of Engineering or Master of Technology	64	76.58	20.21	0.08	98	0.0212	NS
	Quanteation	Master of Philosophy or Doctor of Philosophy	36	76.50	16.89				
7	Educational Qualification	Master of Philosophy or Doctor of Philosophy	36	76.50	16.89				
		Bachelor of Engineering or Master of Arts & Science	50	70.40	19.33	6.10	84	1.5546	NS

V. DIFFERENTIAL ANANLYSIS Table 5.4 Differential Analysis for the Future Expectations on Job Satisfaction

8	Subject	Engineering	111	74.09	20.11	1 5 9	1/9	0.4788	NS
	Specialization	Arts & Science	39	75.67	16.81	1.30	140		
9	Periods / Week	Below 17	72	78.04	20.02	6.91	148	2.1811	NS
		Above 17	78	71.23	18.06	0.81			
10	Salary / Month	Below 10000	84	72.83	21.00	3.79	148	1.2309	NS
		Above 10000	66	76.62	16.71				
11	Timely	Received	61	73.63	20.23	2.41 148	1/19	0.7943	NS
	Promotion	Not Received	89	76.14	17.38		140		
12	Teaching	Below 10	98	75.93	18.58	0.81	1/19	0 8807	NS
	Experience	Above 10	52	73.52	12.76	0.61 140	140	0.0007	Cr1

VI. CONCLUSION

Based on the findings of the study, it can infer that the future level of Job Satisfaction forms a positively skewed platykurtic distribution, which indicates that there is a high level of job satisfaction among Teachers in Engineering Colleges. The related studies indicate that there exist similar results as well as dissimilar results when compared with the results of the present study. The studies done in [8-9] give evidence for the findings of the present study.

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