FORM A

A STUDY OF BURNOUT SYNDROME IN TEACHERS WITH REFERENCE TO JOB SATISFACTION AGE GENDER AND EXPERIENCE

A Thesis is submitted to the

Tilak Maharashtra University, Pune

For the Degree of Doctor of Philosophy (PhD)

In Management

Ву

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Under the Guidance of

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31 July 2011

FORM B

I hereby declare that the project undertaken by me entitled,
A STUDY OF BURNOUT SYNDROME IN TEACHERS WITH
REFERENCE TO JOB SATISFACTION, AGE GENDER
AND EXPERIENCE, completed and written by me has not previously formed the basis for the award of any degree or other similar title of this or any other university or examining body.

Place: Pune Ravindra.N.Shukla

Date: 31/7/11 (Research Student)

FORM C

CERTIFICATE

This is to certify that the Thesis entitled, A STUDY OF BURNOUT SYNDROME IN TEACHERS WITH REFERENCE TO JOB SATISFACTION AGE GENDER AND EXPERIENCE which is submitted herewith for the award of Degree of Doctor of Philosophy (PhD) in Management of Tilak Maharashtra University, Pune, is the result of original research work completed by Ravindra Narmadashankar Shukla under my supervision and guidance.

To the best of my knowledge and belief the work incorporated in this thesis has not formed the basis for the award of any degree or similar title of this or any other university or examining body.

Prin.Dr.G.M.Talhar
(Research Guide)

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A project like this, naturally, cannot fructify without immense help from a lot of people. Needless to say, without **Prin.Dr.G.M.Talhar** unwavering support. I would simply not have had a ringside view of this learning experience. His unstinting support for this project, for guiding me to information sources and for sharing his encyclopedic knowledge, was remarkable.

I, the undersigned take the quintessence of pleasure in submitting his project work to Tilak Maharashtra University, Pune. Research cannot be conducted in vacuum. One has to depend upon a number of people and learning resources.

Many people helped me at different stages of my work. I owe a great deal to them at this moment. It is not possible to mention all of them. Surely, I would fail in my duty, if I do not cite the names of those whom owe my indebtedness, Specially, **Dr. N.C Joshi**, Founder Director of Institute of Science, Pune.

My loving thanks to **Prin.Dr.G.M.Talhar**, my supervisor, a man not only talented but equally inspiring. His ideas, stories and reading of every word with always

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At the end of the day, I alone remain responsible for the

errors, inadequacies and shortcomings that doubtless

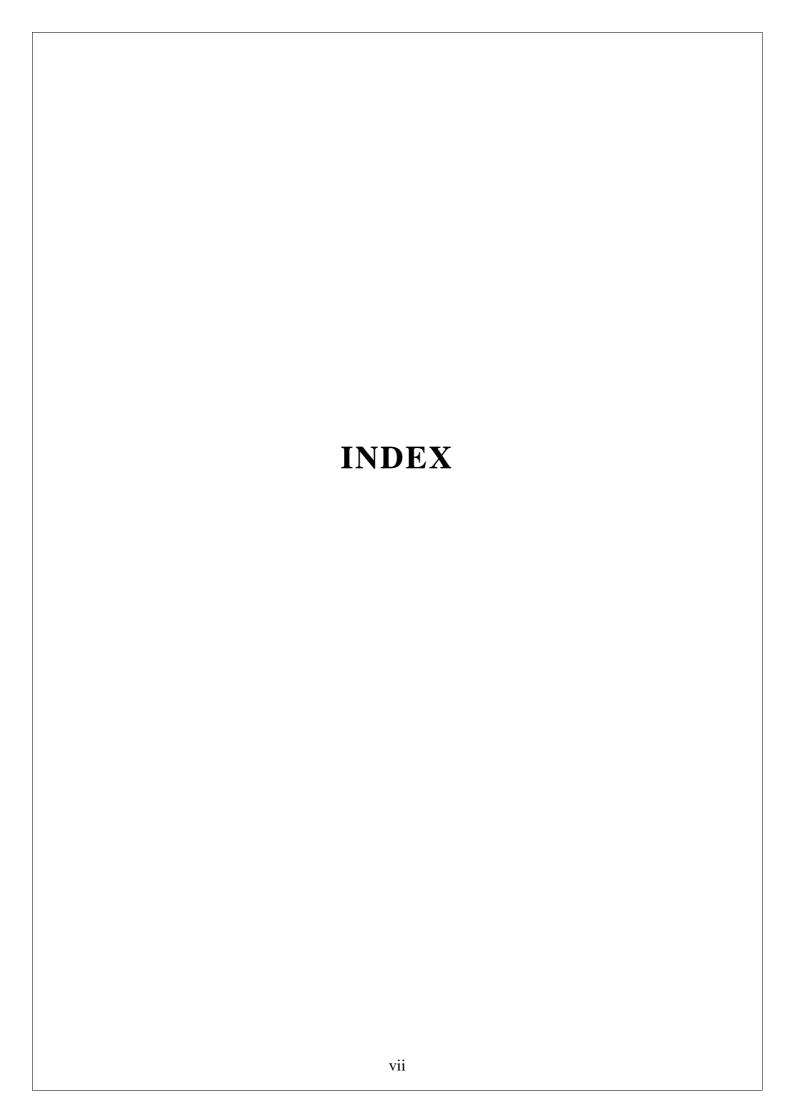
survive my best efforts.

Date: 31/7/11

Place: Pune

(Ravindra.N.Shukla)

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CHAPTER I INTRODUCTION OF THE STUDY

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- 1.3 Statement of the Problem
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1.1 Preamble:

Growing levels of stress and other mental health problems can be damaging to individuals, employers and society in general. The World Health organization have warned of a surge in these problems as the economic crises worsens and people become increasingly worried about debt, home repossession and job security. Add growing work intensity, change and workplace conflict to the mix and one have the ingredients for a stress epidemic. According to the Health and Safety Executive, the number of people in employment experiencing ill health as a result of work related stress rose from 820 per 100000 in 1974 to 1620 per 100000 in 2006.

A certain amount of stress in teaching is inevitable. Hinton and Rotheiler (1998) pointed out that the excitement and challenge of teaching naturally caused the raised adrenaline levels associated with stress, while Dunham (1992) illustrated that teachers worked at peak efficacy when the demands placed on them were in balance with their own perceived coping ability, and that too little challenge and too much can be equally detrimental.

Teacher stress becomes problematic, and potentially harmful, when the challenges teachers face outpace their perceived ability to cope, or when they perceive that important needs are not being met.

Teacher burnout can be caused by a number of factors, both external and internal. External causes may include institutional conditions such as large, mixed-ability classes, lack of student discipline and motivation, lack of resource, overwork or uneven distribution of workload, poor communication, unclear expectations and inadequate rewards and recognition. (Brown&Ralph, 1998). Problematic relationship with colleagues can generate other stressors, such as personality conflicts, lack of community spirit, feelings of isolation, lack of support, and limited academic and social interaction with other teachers (ibid).

Internal causes may include an aggressive, impatient, personality; workaholic; negative attitude towards students; and unrealistic self- expectations. Some of the causes of such stress are beyond the control of individual teachers, arising from external circumstances that require cooperation from administrators and

colleagues to change, while others are within the teachers control and can be managed with the help of appropriate coping strategies.

A nationwide Survey done in the United States indicated that there has been a considerable rise in the burnout level of teachers over the years. Burnout in teachers as described by Maslach (1982) as a three dimensional phenomenon characterized by feelings of exhaustion, depersonalization, and lack of personal accomplishment cannot only manifest itself as various physical ailments and emotional problems, but can result in sensitive, dedicated and thoughtful teachers actually leaving their chosen careers.

1.2 Emergence, need and importance of the problem:

The researcher opted to study the problem of burnout in teachers. From the very beginning the researcher had the love of knowledge and learning. The family environment always encouraged him to do his best in school from early age. He became like a mechanism churning out A grades from KG to undergraduate level. The purpose of education seemed to learn, to achieve, and never let anyone else out perform him. He took quintessence of

pride in his grades and achievements and school appeared to be a place where he was most comfortable and better than anyone else. This had been the eventual reason for choosing the teaching field, but at that time too, education was still about the grades to him. Education was not the place where critical thinking took place and knowledge explored. It was simply a place where the researcher could prove that he was more intelligent and that he worked harder than anyone else did. But something was missing. The researcher had no idea what to do with life in spite of degrees! Education had given him the grades and taught him to achieve and do well in every area but not the skill to take major decision in life. He joined as service engineer in Mumbai but soon quit the job. He felt that no matter what field he chose, he would succeed with hard work and intelligence. Home sickness brought him back to his native place and he was faced with dilemma, follow the wishes of his parents to join lucrative job elsewhere or to follow what his conscience dictated. He realized that he loved leading a noble and an honest life of teacher. Also he felt that he loved to work with teenagers and children. Consequently, he started teaching at the local

Polytechnic in 1987 and experienced peace in what direction the life had taken!

Soon the charm of becoming a teacher sadly faded into oblivion. The poor work- context factors, organizational factors, alienation factors, perverted vision of the management, apathetic attitude of students towards learning and other intrinsic factors over powered him.

With his own perfectionist attitude toward learning and a desire to achieve at high levels, the new world of mediocrity baffled the researcher. After pushing himself to be the best possible teacher for nearly a decade and the students and the management body becoming continuously more apathetic, the researcher had grown to resemble the weary and dreary teachers around him.

The researcher had been exhausted and tired of teaching who did not seem to care about learning in any way. He experienced a complete loss of motivation and energy in himself. The stress of being a teacher had completely transformed his honor of education. He was no longer a passionate teacher who loved teaching. The exhausted cynic was encouraged to reflect on his

teaching career and began to question what caused him to lose the burning desire to be a teacher!

The researcher was fortunate to get the help in the form of literature, and motivation to work on the concept of burnout from his philosopher and guide Prin. Dr.G.M.Talhar. Director, Dept of Research, IBMR, Pune, after being in the teaching for more than two decades, the urge to study the problem materialized at the age of fifty years!

"A teacher affects eternity. He can never tell where his influence stops". So observed the historian - philosopher, Henry Adams¹.

Due to large number of factors, the teacher in the scenario is stressed and burnout. Such teachers are anxious, depressed, cynical, emotionally and physically depleted. Stress and burnout have affected and would continue to affect the lives of teachers and their families and society in particular.

Researcher found that there is enormous work and literature available on various aspects of the working conditions. It shocked the researcher that there are so many teachers who have

contributed but they have not cared to make the same type of study about the educational institutions which are becoming more and more commercial in their activities.

The data emerged from the opinion survey have been analyzed and discussed in the respective chapters.

The study has brought out very significant facts in the form of answers to the research questions which fulfills the objectives of the study.

1.3 Statement of the problem:

The researcher realized that the title of the study was concise and clearly indicative of the purpose of the study. The statement was framed as follows.

A STUDY OF BURNOUT SYNDROME IN TEACHERS
WITH REFERENCE TO JOB SATISFACTION AGE
GENDER AND EXPERIENCE

1.4 Operational definitions:

Burnout: It is an occupational hazard to which all members of helping professions are exposed including teachers. Carter (1994) defines teacher burnout as physical, emotional and attitudinal

exhaustion that begins with a feeling of uneasiness and mounts as the joy of teaching begins to gradually slip away.

Burnout was first defined by Freudenberger (1974) and involves feeling of failure and exhaustion resulting from excessive demands on a person's energy with insufficient reward for the effort.

High score on burnout inventory as referred for study indicates a higher trend of self reported burnout.

Syndrome: It is a characteristic combination of opinion, behavior and emotions (Oxford dictionary)

It is defined as a number of symptoms occurring together and characterizing a specific behavior (Webster dictionary).

Job satisfaction: There are a number of definitions. According to one of the most comprehensive definitions, it is a generalized attitude resulting from many specific attitudes in three areas.

- a) Specific Job factor
- b) Individual adjustment
- c) Group relationship

Job satisfaction describes how content an individual is with his or her job. Job satisfaction is not sane as a motivation or aptitude, although it is clearly linked. It is a very important attribute which is frequently measured by organizational system.

It is an employee's own evaluation of his job in terms of supervision, co-workers, pay, and promotion, work itself. As measured by job satisfaction scale.

High score on job satisfaction scale indicates higher trend of job satisfaction.

Age: - It is a personal variable. The ages of teachers are in accordance with the data given by them in their personal information schedule provided with the questionnaire. In the study undertaken the teachers were divided into three groups:

Table 1.1
Age

Group	Age in years
A	Up to 30
В	31 to 45
С	Above 45

Gender: - It refers to male and female teachers working in the Engineering Colleges and Polytechnics of Jalgaon district under study. It forms a part of sample and population.

Teaching experience:-The number of years put in by a teacher in the teaching profession after passing the qualifying examination as prescribed by competent authority. It expresses the total teaching experience in years.

In the study undertaken, teaching experience is classified in three groups:

Table 1.2
Teaching experience

Group	Teaching experience in years
A	1 To 5
В	6 to 15
С	Above 15

1.5 Objectives of the study:

Setting relevant and appropriate research objectives require a researcher to identify and develop a research problem with due attention to the availability of sufficient data, time and the socioeconomic significance of the research problem. Researcher's individual experience, an interaction with others, thorough and analytical review of earlier studies would certainly provide a base for choosing the right research topic and once the research topic is identified then, possible research issues questions relating to the research problem have to be raised and the same may be transformed into specific research objectives. These objectives will give a better direction to the research study.

Keeping into view the above, facts, the following Objectives have been framed for the present Study.

Main objectives:

- To study the relationship between burnout and job satisfaction in teachers under study.
- To study the relationship between burnout and age in teachers under study.
- To study the relationship between burnout and gender in teachers under study.
- To study the relationship between burnout and experience in teachers under study.

Supporting objectives:

- To study the perceptions and awareness about burnout in teachers under study.
- To study the perceptions and awareness about job satisfaction in teachers under study.

1.6 Statement of the hypotheses:

Hypotheses are the tentative assumptions relating to the chosen research problem and these are developed in the light of the research objectives. These statements do not have any base or data support as they are developed on the basis of experience, previous literature and therefore, they need to be researched so as to prove as true or false. Developing research hypotheses is felt very essential as these will give a direction to the research study and in view of the hypotheses; a researcher can plan his research study effectively and collect suitable data for the same.

Main hypotheses:

In the study undertaken, on the basis of surveying the research literature the following **null hypotheses** were formulated:

HO 1: There is no significant relationship between burnout and job satisfaction in teachers.

HO 2: There is no significant relationship between burnout and age in teachers.

HO 3: There is no significant relationship between burnout and gender of teachers.

HO 4: There is no significant relationship between burnout and experience in teachers.

Supporting hypotheses:

The supporting hypotheses are those which the researcher would test on the basis of observations and findings derived from the collected information at the particular instant of time. They are:

H1: Teachers are aware of the lack of feeling of burnout in them.

H2; Teachers are aware of the importance of being satisfied with their job.

1.7 Significance and relevance of research problem:

Every research topic will be assessed in terms of its relevance to the society in particular and to the economy in general and its success depends upon how well a researcher justifies its importance. No doubt, every research problem will have one or the other benefits to the society but, it all depends on the researcher's skills that how he will convince about it.

When dissatisfied and depressed teachers are present, others can very easily become lethargic, cynical and discontented and before long the entire organization becomes a dispirited and uninviting place. Thus teachers play an important role in establishing the overall tone of the school. Teachers need to feel successful and good about themselves and their abilities before they can empower their students to feel the same. If however, teachers are experiencing feelings of failure, their relationship with students and the overall school will suffer.

The present study on teacher's burnout will provide an insight in to the various aspects of well being of teacher.

1.8 Bibliographical representation:

Literature review is another important component of research proposal and it is concerned with the study of earlier research that was carried out in the fields similar to the proposed research topic. This literature review will provide a researcher better insights into the research work that was undertaken in the field of proposed research problem.

The current research is integrally connected with past researches. The researcher surveyed various primary and secondary resources. As a secondary resource of information the researcher had to resort to the reference and findings of renowned scholars.

Bibliography is presented in a chronological and alphabetical form and same appears at the end of the dissertations.

1.9 Population and sample of the study:

This is a descriptive connected through quantitative analysis aiming at studying the relationship between burnout and some personal parameter and also their perceptions regarding teaching professions.

Teachers from all the **six** unaided engineering colleges affiliated to north Maharashtra University, Jalgaon and **four** unaided polytechnics offering diploma courses in engineering and affiliated to MSBTE, Mumbai for session **2006-07** constituted the population of the study. At the time of administration of tools there were **540** teachers. This constituted the population.

The samples of **120** teachers were selected from the population for the study. Thus the size of the sample was restricted to **22.22%** of the population.

The following criteria were laid down in selecting the sample of teachers.

- Every institution must be represented in the sample.
- The sample should have items, that they are representative of the universe.
- The sample should be chosen in systematically random way.
- The size of the sample should be sufficient so as to be representative of the universe.

1.10 Research methodology and tools used:

Research design is a comprehensive plan of research work and sequence of operation with regard to the proposed research problem like data collection, organization selection, respondents' selection, duration of study, defining the scope of the study, fixing study location, identifying parameters, cost estimation, data analysis, presentation of findings etc that a researcher intends to carry out to accomplish research objectives. The research methodology on the other hand, is concerned with identifying and selecting suitable, appropriate and logically justifiable research methods and techniques like data collection method whether observation method or survey method; data collection instrument whether open ended or close ended questionnaire; respondents contact method whether telephone or mail interview; sampling unit, sample size, sampling tool, data analytical tool etc. More importantly, research Methodology emphasizes on reason or logic behind selecting each method or technique for carrying out proposed research. Therefore, a methodologically designed research is regarded to be a scientific research.

As the study involved determining relationship of burnout with job satisfaction, age, gender and experience, a **descriptive** and co-relational method of research was used in conducting the study.

Measurement of opinion is very difficult because the opinion is related to affective domain of a person. There is no such test on the earth which may affect certain variables which were related to thinking, perception and opinion of a person. However some educationists have tried to develop and standardize the research tools for assessing these variables.

The researcher has employed the following tools for his study:

- (1) Burnout Inventory prepared by the researcher (2006)
- (2) Job Satisfaction Scale prepared by the researcher (2006)

The burnout inventory was prepared on the lines of Maslach burnout inventory and was used to measure teacher burnout. .

The job satisfaction scale was prepared on the lines of Generic job satisfaction scale developed by Scott McDonald (1997) and was used to measure job satisfaction.

The details of both the scales are enclosed as annexure A and annexure B, in the appendix.

1.11 Delimitations of the study:

Defining the scope of the proposed study in the research proposal is always desirable and it gives a clear idea about the coverage of the study.

- The study was restricted to teachers working during session 2006-07 in six unaided engineering colleges of Jalgaon district affiliated to North Maharashtra University, Jalgaon and four unaided Polytechnics affiliated to MSBTE, Mumbai. The colleges offered under graduate courses while polytechnics catered to diploma courses in engineering.
- The sample of the study consisted of teaching staff working at the level of lecturers and senior lecturers, assistant professors and professors.

 The burnout is a very wide concept. The study was limited to effects of burnout in relation to job satisfaction, age, gender and experience only.

 The teachers belonged to engineering faculty only. The sample did not include Physics, Chemistry, Mathematics and English teachers.

1.12 Scheme of research chapters:

The final phase was the preparation of the overall research report that inter-alia, incorporate the basic research findings based on the interference drawn from the analysis of the research data through the medium of statistical techniques. The final part of the thesis included the prescriptive package in the form of recommendations. The last part of the report dealt with the potential for further research and areas of research.

The researcher divided his research report in to three main sections:

1) The preliminary section:

Title page

Declarations

Certificate

Acknowledgements

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(2) Main body page of the report:

Chapter I: Introduction of the study

Chapter II

- (A)Review of related literature
- (B) Rationale of the study

Chapter III: Profile of the study area

Chapter IV: Research methodology and techniques

Chapter V: Data analysis and findings

Chapter VI: Summary, conclusion and recommendations

- (3) REFERENCES
- (I) BIBLIOGRAPHY:
- (II) APPENDICES

1.13 Summary.

It was a tough task for the researcher as he had no preidea about the extent of co-operation that he would seek from the various colleges and Polytechnics and also the teachers, as target group in completing the research. However, he got full support and it appeared that the study is inclined for realistic results.

Chapter I: covered the Significance and the Importance of the study. Chapter II: Review of related has been drafted as the summaries of various researches directly or indirectly related with this research. It would reveal the difference between the researches conducted in the past and the present. It also included the frame work of burnout and job satisfaction. Chapter III: Dealt with the profile of the study area. Chapter IV: Presented the methodology adopted for carrying out the research project.

Chapter V: Dealt with the analysis of data, its interpretation and discussion of results. **Chapter VI:** Dealt with summary, conclusion and suggestions for further research.

Bibliography and Appendix (containing tools and data) are given at the end of the project report.

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CHAPTER II REVIEW OF RELATED LITERATURE

- 2.1 Introduction
- 2.2 Related literature survey- A need
- 2.3 Review of past research
- 2.4 Rationale of the study
- 2.5 Concept of burnout
- 2.6 Concept of job satisfaction
- 2.7 Summary
- 2.8 References

2.1 Introduction:

Literature review is another important component of research proposal and it is concerned with the study of earlier research that was carried out in the fields similar to the proposed research topic. This literature review provided a researcher better insights into the research work that was undertaken in the field of proposed research problem. With this literature review, a researcher understood research gaps in terms of the areas which appeared to be relevant and should have been studied but not studied; variables/parameters should have been given emphasis but not have been given; particular data should have been used but not used; particular analytical tool should have been employed to analyze and understand the issues in question but not have been employed, etc.

The literature in any field forms the foundation upon which all future work must be built.

It helped the researcher in avoiding sterile approaches and unintentional duplication, provided insight into methods, and facilitated interpretation of the results of the study.

The current research has been integrally connected with past researches. The researcher surveyed various literatures from both primary and secondary resources.

The researcher surveyed numerous journals, research papers, dissertations, theses, publications, indexes, directories, bibliographies, technical reports, and websites. This survey could help the researcher in analyzing researches in the field of education.

Very few direct studies were available on teacher burnout in relation to job satisfaction and other variables especially at engineering college level in India.

2.2 Related literature survey - A need:

Review of related literature provided a summary of the writings of recognized authorities and the previous researches provided evidence that the researcher had been familiar with what is already what is still unknown known and and not investigated. Since effective research is looked upon on past knowledge, this step helped to eliminate the duplication of what has been done and provided useful hypothesis and helpful suggestions significant investigation.

It also provided solution to some unanswered questions after experimentation on a sample. This chapter has dealt with 59 past researches in the area of teacher burnout in India and abroad.

2.3 Review of past researches:

1. Year: 1950

Researcher: Hop pock R and Super D.E.

Problem: Vocational and educational satisfaction.

Findings: The researcher conceived the development

of job satisfaction with age as critical.

2. Year: 1957

Researcher: Hertzberg. F.

Problem: Work and nature of man.

Findings: The author noted that job satisfaction was

high among young workers and went down during the

first few years of employment. The low point was

reached when the employees were in the middle of

their career. After that satisfaction climbed steadily

with age.

3. Year: 1965

Researcher: Hulin C.L and Smith. P.C.

Problem: A linear model of job satisfaction.'

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Findings - The researcher argued that there was curvilinear relationship between age and job satisfaction.

4. Year: 1975

Researcher: Olson R.C

Problem: A comparative study of the effect of behavioral objectiveness on class performance and relation in physical science.

Findings: The researcher found that age was one of the variables which had most significant and positive impact on job satisfaction and burnout. He studied on education teacher coordinators.

5. Year: 1977

Researcher: Chen W.S.

Problem: The job satisfaction of school teachers in the republic of China as related to personal and organizational characteristics.

Findings: The researcher found that job satisfaction was low in the age group of 21 -25 years. Job

satisfaction then increased up to the age of 45 and then started decreasing till the age of 50. Thereafter, the job satisfaction went up again.

6. Year: 1980

Researcher: Gupta S.P.

Problem: A study of job satisfaction at three levels of teaching.

Findings: The researcher found that there was U – shaped relationship between age and job satisfaction.

7. Year: 1980

Researcher: Porwal N.K.

Problem: Personality correlates of job satisfaction.

Findings: The researcher found that age exerted adverse impact on job satisfaction.

8. **Year:** 1980

Researcher: Bowen B.E.

Problem: Job satisfaction of teacher educators in agriculture.

Findings: The researcher found that there was no significant relationship between age and job satisfaction.

9. Year: 1985

Researcher: Friedman and Lotan

Problem: High and low-burnout school: School culture aspects of teacher burnout.

Findings: The researcher found out that burnout rose with teacher's age (and years of experience), it reached a peak at the age group of 41 to 45 years (20-24 years of experience) and then it declined.

10. Year: 1990

Researcher: Chukwuemeka S.M.

Problem: An examination of teacher stress and burnout concerning teachers' opinions towards teaching as a profession.

Findings: The researcher reported that the teacher's age did produce a significant effect on their attitudes towards job related stress. Ethnicity and experience

had a significant effect on teachers' attitudes towards job related stress. The variables produced a significant effect on the attitudes of teachers towards job related stress.

11. Year: 1990

Researcher: Yoon L.H.

Problem: Social service workers burnout and their work environment.

Findings: The researcher in his study found that individual factors and work environmental factors were associated with burnout and job satisfaction. The personal growth dimension was perceived as the intrinsic source of stress and the policy dimension is the most stress provoking aspect of social service work. Supervision and management were recognized as both contributors to and mitigating factors of burnout

12. Year: 1990

Researcher: Swenson D.N

Problem: An analysis of burnout rates among special education teachers across special day class category, organization and site variation'

Findings: The researcher reported that the teachers employed by the state, and those who worked on isolated sites exhibited significantly higher rates of burnout than their counterparts.

13. Year: 1990

Researcher: Marie A Schiavo

Problem: The relationship between stress, hardiness and burnout in college of education deans.

Findings - The researcher came to the conclusion that the more years in administration and greater the size of institution, the less burnout was experienced by the deans; the older the dean and more years in the present position, the less the dean was burnout. The larger the size of the institution and the larger

the undergraduate and graduate enrollments the greater the burnout experienced by the deans; older the dean, the more years in the present position and the more years in administration, the less stress was experienced by the deans; and higher the degree earned and larger the size of the institution, the greater the hardiness of the deans in the sample.

14. Year: 1990

Researcher: David C.S.

Problem: An analysis of stress, burnout and job satisfaction among respiratory care practitioners in Georgia.

Findings: The researcher in this study found that there were clearly significant relationship between certain organizational, job specific and individual variables and burnout. Of these variables the strongest predictors of burnout were time off, control, nursing respect, role clarity, job stress, and satisfaction with work, age, number of dependent

children at home, social support and health. Further, absenteeism and attrition were related. burnout. Finally, as job satisfaction declined, burnout

increased.

15. Year: 1991

Researcher: Sadek S.A.

Problem: Stress job satisfaction and burnout of waivered / bilingual and English only teachers.

Findings: The researcher found that job satisfaction was positively related to age, marital status and household size. Burnout levels decreased with age, years of teaching, and years at one school. Burnout decreased as teachers changed from probationary to tenured status. Stress and burnout levels of teachers were positively related and decreased their level of job satisfaction and increased their level of burnout.

16. Year: 1991

Researcher: Melissa U.M.

Problems: Organizational and individual factors associated with job satisfaction and burnout of community social service workers.

Findings: The researcher reported that workers were satisfied with the amount of praise delivered by supervisors and reportedly dissatisfied with salary levels and promotional opportunities. Correlates of satisfaction and burnout can be altered in order to maintain employee satisfaction and reduce burnout, absenteeism and turnover.

17. Year: 1991

Researcher: Ann. E.C.

Problem: The effect of observational feedback on burnout levels of elementary physical education teachers.

Findings: The researcher reported that Burnout levels failed to change significantly during the course of the school year for all of the teachers, though there was a trend that indicated that the measure of

depersonalization may change over time. The result also showed that majority of the teachers had low or moderate levels of burnout throughout the school year.

18. Year: 1991

Researcher: Kendrick L.N.

Problem: Teacher characteristics, burnout and tolerance for the child behavior.

Findings: The researcher reported that race was related to both teacher tolerance and burnout. Black teachers were found to report less frequent emotional exhaustion and depersonalization. They were also more tolerant of socially defiant behaviors.

19. Year: 1991

Researcher: Robbins S.P.

Problem: Organizational behavior in older employees.

Findings: The researcher found overwhelming evidence indicating a positive association between

age and job – satisfaction. However, in jobs where workers were subjected to dramatic changes causing their skills to become obsolete, such as those affected by the computer, the satisfaction of older employees was likely to be lower than that of younger employees.

20. Year: 1991

Researcher: Mulkins M.T.

Problem: An assessment of academic stress and burnout.

Findings: The researcher reported that professors who published three or more articles per year and contributed 20% or more of their time to research were significantly more burnout than those who devoted less of their time to research.

21. Year: 1991

Researcher: Plummer B.S.

Problem: Factors associated with burnout in assistant principals in South Caroline.

Findings: The researcher reported that high levels of emotional exhaustions were associated with high levels of role conflict/ role ambiguity and a negative perception of the impact of school reform. A significant relationship between depersonalization sub scale and role conflict was found. High levels of depersonalization were associated with high levels of role conflict. Assistant principals with more years of teaching experience reported lower level of emotional exhaustion.

22. Year: 1991

Researcher: Friedman I.A

Problem: High and low burnout schools: School culture aspects of teacher burnout.

Findings: The researcher found that four major school culture variables contributed to teacher's burnout.

Drive towards measurable goal- achievement behavior imposed on teachers by school administration,

Lack of trust in teacher's professional adequacy, circumscribing school culture, disagreeable physical environment, age, sex, level of education and number of years in teaching were background variables also associated with high and low levels of burnout.

23. Year: 1992

Researcher: Friedman I.A. and Farber B.A.

Problem: Professional self concept as a predictor of teacher burnout.

Findings: The researchers indicated that of several dimensions of professional self concept, professional satisfaction how teachers feel about the gratification they receive from teaching – bore the strongest negative correlation to burnout; that among the possible discrepancies among scores on the self concept dimensions discrepancy between teachers'

views of themselves as professionally competent and professionally satisfied bore the strongest correlation to burnout; existed in terms of how teachers perceive themselves rather than how they feel that others perceive them; and that from the point of view of teachers, both parents and principals had teachers' professional exaggerated sense of satisfaction and discrepancies in both cases were significantly correlated with burnout.

24. Year : 1992

Researcher: Trigo F.L.D. Santos

Problem: Attitudes and beliefs of the Portuguese secondary school teachers about their work satisfaction, dissatisfaction and burnout.

Findings: The researchers reported that responsibility, achievement and work were the intrinsic factors that contributed most to satisfaction and that were found to be actual satisfiers. Salary, policies, status and working conditions were the

extrinsic factors that contributed most to teachers' dissatisfaction. The results also indicated that 30% of the sampled teachers evidenced the presence of burnout.

25. Year : 1993

Researcher: Buckley G.G.

Problem: The relationship of burnout and job satisfaction in human service workers.

Findings: The researcher reported that emotional exhaustions scores were negatively correlated (r = -0.24) with job satisfaction scores. A positive correlation (r = 0.29) was found to exist between the personnel accomplishment subscale of the MBI and job satisfaction.

26. Year: 1993

Researcher: Anna. J

Problem: An analysis of occupational burnout among teachers in selected urban schools.

Findings: The researchers reported that any attempt to predict teacher burnout should take into consideration marital status, ethnicity and sex. These variables accounted for 27.4% of variance of teacher burnout.

27. Year: 1994

Researcher: Adelman and Taylor

Problem: Burnout in child protective service workers: A Longitudinal study.

Findings: The researchers found that all scales of the Maslach Burnout Inventory showed significantly increased burnout. Environmental factors measured by the work Environment scale were significantly related to change in burnout with initial levels of burnout controlled. The relations of environmental factors to changes in burnout were consistent with previous, non-quantitative descriptions of the child protective service job.

28. Year: 1994

Researcher: Lee N

Problem: Burnout of school counselors in South Carolina.

Findings: The researcher found that there were no statistically significant differences in the level of burnout in school counselors based on selected personal variables and selected school variables.

29. Year: 1994

Researcher: Dow M; Shaw S.M.

Problem: A study of special education student teacher ratio and caseloads in Oregon and their impact upon teachers' perceptions of success, job satisfaction and burnout.

Findings: The researcher reported that data were examined for the total sample (N=426) and three sub groups, full time traditional (FTT), Full time Non Traditional (FTNT), and part time (PT).

For the total sample, no significant relationship was found between STR or caseload, and success and satisfaction. Significant relationships were found between STR and caseload, and emotional exhaustion for the total sample. For the FTT, a significant relationship was found between STR and emotion exhaustion and depersonalization. For FTNT, a significant relationship was found between case load emotional exhaustion. For the PT group and significant relationships were found between case load and success, and satisfaction, and emotional exhaustions.

30. Year: 1994

Researcher: Henry E.F.

Problem: The relationship of social support, occupational stress, burnout and job satisfaction among special education teachers.

Findings: The researcher that the higher the number of stressors experienced in special education, the

higher degree of burnout. A non-significant relationship, however, was found between number of stressors experienced and job satisfaction. Teachers' who were older and taught students with learning disabilities or average intelligence, or had greater diversity in the number of students taught each day, reported less burnout. Social support from supervisors and co-workers associated was consistently with the lower burnout and increased bob satisfaction. In general, the forms of support provided by family/ friends were not related strongly, either to burnout or to job satisfaction. Guidance, re-assurance of work, and reliable alliance with supervisors, as well as social integration, were the types of support associated most strongly with decreased burnout in special education.

31. Year : 1995

Researcher: Amar Singh A

Problem: A study of job satisfaction of polytechnic teachers in relation to personal and organizational variables.

Findings: The researcher arrived at the following results. The values of correlation (r = 0.251) between age and job satisfaction was found to be significant at 0.01 level. The value of correlation (r = 0.221) showed a positive significant relationship between experience and job satisfaction. The value of Chi square was found to be 6.96 which was insignificant at 0.05 levels.

32. Year: 1995

Researcher: Ann .E

Problem: Stress and job satisfaction amongst special education teachers in urban districts in Texas.

Findings: The researcher found that hiring and retaining special education teachers was more complex than addressing simple stress and job satisfaction issues.

33. Year: 1995

Researcher: Teofilo, A

Problem: The effects of school environment on teacher burnout.

Findings: The researcher found that, Emotional exhaustion correlated negatively with the perception of both the environmental factors and administrative support. The sense of depersonalization correlated negatively with the perception of each of the environmental factors, inter personal problems, recognition and rewards and social support. The senses of personal accomplishment correlated positively with the perception of both inter personal problems and recognition and rewards.

34. Year : 1995

Researcher: Duke A; Wanita P.

Problem: Burnout among special education teachers and former special education teachers.

Findings: The researchers found that the teachers

remaining in special education evidenced significantly less emotional exhaustions and depersonalization than those who had switched to regular education or left teaching altogether.

Teachers remaining in special education were slightly older, had more experience in special education field, and were more positive towards their job.

35. Year: 1995

Researcher: Friedman, I.A.

Problem: Student behavior patterns contributing to teacher burnout.

Findings: The researcher found that the typical student behaviors – disrespect, inattentiveness and sociability- accounted for 22% of teachers' burnout. Humanistic teachers were affected mainly by disrespect, whereas custodial teachers were affected by inattentiveness. Burnout among male teachers was mainly affected by the students' inattentiveness,

whereas burnout among female teachers was mainly affected by students' disrespect.

36. Year: 1995

Researcher: Donald Philip

Problem: The effects of supervisory support, counselor characteristics, the work setting and social influence on burnout in mental counselors.

Findings: The researcher found that family service counselors' burnout scores in comparison to the MBI significantly higher for were emotional exhaustion and lower for depersonalization and personal accomplishment. Significant associations were found between burnout and supervisor support, colleague personal support, colleague professional therapeutic success, work support, pressure, authoritarianism. administrative and client pathology. More supervisor support, colleague personal support, colleague professional support, therapeutic successes were associated with less

burnout. More work pressure, administrative authoritarianism. and client pathology associated with more burnout. The counselor characteristics, gender and years of experience, had no significant relationship to burnout.

37. Year: 1995

Researcher: Janet Mobley

Problem: The relationship of the dual role assignment to the level of perceived burnout by secondary teachers.

Findings: The results indicated that emotional exhaustion was present in moderate levels, but depersonalization and feelings of lack of personal accomplishment were low among the secondary teachers', regardless of the dual role assignments. There was no relationship found between burnout and demographic variables: age, gender, and years of experience. The role conflict was inversely related to emotional exhaustion and depersonalization of

secondary teachers with additional remunerated roles other than coaching. Role ambiguity did not affect the level burnout of secondary school teachers.

38. Year: 1995

Researcher: Whitaker Kathryn S

Problem: Principal burnout: Implications for professional development.

Findings: The researcher found that increased demands and work load, role ambiguity, lack of recognition and rewards, and decreasing autonomy were issues that caused with group of principals to question whether they wanted to remain in their jobs.

39. Year: 1996

Researcher: Edward. A . Merritt

Problem: A study of burnout in private club management.

Findings; The researcher found that club house managers suffered highest in emotional exhaustion and General Managers in depersonalization.

Managers with less than 5 years experience and below 25 years of age scored highest in emotional exhaustion. Managers working 50 to 60 hours per week experienced highest depersonalization. Male managers were highest in emotional exhaustion depersonalization and personal accomplishment as well.

40. Year: 1997

Researcher: Onyett Steve

Problem: Job satisfaction and burnout among members of community mental health teams.

Findings: The researcher found that high emotional exhaustion was reported, particularly among consultants, psychiatrists, social workers, nurses and psychologists. High job satisfaction, high personal accomplishment, and low depersonalization were also found. Job satisfaction was associated with team role clarity and identification with the team. Case-load size and composition and the frequency with which

service users were seen were not associated with Job satisfaction or burnout. Significant differences were found between disciplines on all variables except sick leave.

41. Year: 1998

Researcher: Burke; Ronald J.

Problem: Components of burnout, resources and gender – related Differences.

Findings: The researcher found that in women, co-worker support led to lower emotional exhaustion, and in men, supervisor and co-worker support led to higher personal accomplishment. Higher levels of internal control were associated with greater accomplishment in men only.

42. Year: 1998

Researcher: Tatrow Kristin

Problem: Occupational stress, burnout and health in

teachers: A methodological and theoretical analysis.

Findings: The researcher found that the occupational stress and burnout were significantly associated with poor health in teachers. It was concluded that this area of research was ready for a shift to theory – based investigations that tested causal model of teacher stress and health with more sophisticated research designs and measurement strategies.

43. Year: 1999

Researcher: Weisberg Jacob

burnout: Impact on intention to quit.

Problem: Teachers physical, mental and emotional

Findings: The researcher found, that both physical and mental exhaustion were positive and significant to influence the teacher's intention to quit the job. The influences of emotional exhaustion were not significant; nor were the teachers' ages. Tenure was negatively and significantly correlated with both burnout and intention to leave.

44. Year: 1999

Researcher: Miller L

Problem: Reframing teachers' burnout in the context

of school reform and teacher development in the

United States.

Findings: The study helped the researcher to reframe

the organizational variables related to burnout in

important and occasionally unexpected ways. The

study further explored how professional development

can serve as a buffer against some of the causes of

burnout.

45. Year: 1999

Researcher: Millicent H

Problem: Stress and burnout in rural and urban

secondary school teachers.

Findings: The researcher found that the urban school

teachers' experienced significantly more stress from

poor working conditions and poor staff relations than

did rural school teachers. Stress from pupil

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misbehavior and time pressures was significantly greater than stress from poor working conditions and poor staff relations for both rural and urban school teachers. Poor working conditions and time pressure predicted burnout for rural school teachers; pupil misbehavior and poor working conditions predicted

46. Year: 1999

Researcher: Dworkin A. G.

burnout for urban school teachers.

Problem: Teacher burnout in public schools in New York.

Findings: The researchers explored some of the inter connections between burnout and commitment as well as similarities between burnout and alienation.

He developed models of burnout; the intention to quit and quitting behavior for the teachers of public school under study.

47. Year: 1999

Researcher: Cooley. E.

Problem: A study of special educators – Strategies to reduce Burnout.

Findings: The researcher conducted a study of special educators and related service providers. He evaluated the effects of two interventions on factors known to be correlated with the actual job turnover.

He provided practical solutions to the six most important sources of job burnout identified by him, viz; workload management, or reduction; increasing one's control over the job, enhancing reward structure of the work place, creating a team spirit; attacking issues of fairness; attaching values to one's perceptions of the work place; and ways to approach management.

48. Year: 1999

Researcher: Rene F.W.

Problem: A comparative study of teachers with others social professions on work stress and burnout symptoms.

Findings: Burnout among teachers was the focal topic of the study, in which a sample of about one thousand teachers was compared with the members of other social professions on burnout symptoms. The results for burnout and other measures of strain supported the idea that the teaching job carries more psychological and, to a lesser extent, more physical symptoms than other social professions

49. Year: 1999

Researcher: Wilmar B.

Problem: Teacher burnout and lack of reciprocity: A critical study.

Findings: The researcher found that when teachers invested more than they got back from their school, they reported higher level of emotional exhaustion. At the interpersonal level, low outcomes from students were related to higher burnout levels; whereas at the organizational level, low investments were related to higher burnout levels.

50. Year: 1999

Researcher: Webster; Linda

Problem: Burnout and leadership in community mental health systems.

Findings: Results indicated a significant, although modest relationship between leadership responses and emotional exhaustion, and between leadership, clinical supervision, and depersonalization. However the correlations were small.

51. Year: 1999

Researcher: Kelchterman, Geert.

Problem: Beyond Individual burnout: A perspective for improved schools.

Findings: The researchers proposed a set of guidelines that can help to redesign the school as a work place so as to reduce or to minimize the risk of teacher burnout. They provided some general assumptions and presented the guidelines at several

levels of school organization and their relation to the wider socio cultural and political environment.

This study was conducted on 200 schools at Louvian, Belgium.

52. Year: 2000

Researcher: Friedman Isaac. A.

Problem: Burnout in teachers – A study of Henrietta Szold Institute.

Findings: The researcher conceptualized burnout as a work related syndrome stemming from the individual's perception of a significant gap between expectations of a successful professional performance and an observed; far less satisfying reality.

He examined this perception as a discrepancy between expected and observed levels of the individual's professional self efficacy. The teaching profession and its service providers – teachers – service as a model to illustrate and support this

examination. He provided a number of suggestions for programs and activities to alleviate stress and burnout in teachers.

53. Year: 2000

Researcher: Schutte, Nico

Problem: The factorial validity of the Maslach Burnout Inventory – General survey across occupational groups and nations.

Findings: The factorial validity of the Maslach Burnout Inventory was investigated among employees of a multinational company in the forest industry.

The present study includes data from Finnish, Swedish and Dutch employees (N= 9055). The hypothesized three factors model of the MBI-GS (Exhaustion, Cynicism, Professional; efficacy) was replicated across occupational groups (i.e. managers, clerks, foreman technicians, blue collar workers) and nations. The fit of this model to the data was

superior to alternative one and two actor models in all samples under investigation. In addition, the three factor structure of the MBI-GS proved invariant across all occupational groups. The internal consistencies of three sub scales are satisfactory, excerpt for the cynicism scale in some sub samples. The researcher suggested excluding one ambiguous cynicism item.

Finally some differences in levels of burnout were found between nations and occupational groups that were consistent with earlier findings.

54. Year: 2000

Researcher: Brouwers, Andre

Problem: A longitudinal study of teacher burnout and perceived self-efficacy in classroom management.

Findings: This study examined the direction and time frame of relationships between perceived self efficacy in class room management and the three

dimensions of burnout among 234 secondary school teachers. Structural equation modeling analyses indicated that perceived self efficacy had a effect on depersonalization and a longitudinal synchronous effect on personal accomplishment. direction was reversed for However, the the relationship between perceived self efficacy and emotional exhaustion. The researcher concluded that perceived self efficacy in classroom management must be taken into consideration when devising interventions both to prevent and to treat burnout among Secondary school teachers.

55. Year: 2003

Researcher: Jeffrey Dormon

Problem: Testing a model for teacher burnout'.

Findings: Research was conducted on the predictors of burnout in a sample of teachers in Queensland Private School. A total of 246 teachers responded to scales that assessed burnout, school and classroom

environments, work pressure, role overload, role ambiguity, role conflict, teaching efficacy, external locus of control, and self esteem. A hypothesized model of burnout was tested in a LISREL analyses with post hoc modifications indicating that overload, work pressure, classroom environment and self esteem were predictors of emotional exhaustion. Depersonalization was significantly related to emotional exhaustion, role conflict, and self-esteem and school environment. Teaching efficacy, self esteem and depersonalization were predictors of personal accomplishment.

56. Year: 2003

Researcher: Anthony Gary Dworkin, Lawrence. J.
Saha

Problem: Teacher burnout and perceptions of a democratic school environment.

Findings: In the present study the researcher found that the democratic personnel policies and

practices of the principal exerted the strongest effect in lowering the burnout scores of the teachers. Collegial support of co - workers, while significant, had a much weaker effect. Prior work by Dworkin, Haney and Telschow (1990) found that the effect of co-workers was near zero under conditions where the principal was unsupportive.

57. Year: 2004

Researcher: Ralf Schwarzer; Gerdamarie S. Schmitz.

Problem: Perceived self-efficacy and teacherburnout - A longitudinal study in ten schools inGermany.

Findings: The pool of 27 items was part of a lengthy questionnaire that was administered three times to about 300 German teachers.

In a final analysis, the interplay of teacher self efficacy, job stress and burnout was examined longitudinally over two years. It turned out that initial self efficacy was negatively associated with

burnout two years later. More important, job stress served as a mediator between these two variables. Self efficacious teachers experienced less job stress in the following year. Those who did experience job stress however, were more likely to experience burnout later on.

58. Year: 2005

Researcher: Dr. K. Demeirleir

Problem: Detection, diagnosis, treatment and prevention of burnout and career related depression in workers in human service and additional study of primary and secondary prevention.

Findings: The sample consisted of 800 nurses, the mean values calculated were 10.78 for emotional exhaustion, 37.76 for personal accomplishment and 4.99 for depersonalization. High burnout scores were noted primarily in female nurses, around a mean age of 36 years. Male nursing personnel with low burnout levels were more active (3252.77 Kcal) and

differed significantly from their high burnout counterparts. In the female population no differences were observed.

59. Year: 2005

Researcher: Dr. Yeltekin Demirel; Nuran Guler

Problems: Burnout among high school teachers in Turkey.

Findings: The researcher observed that there was no statistically significant difference between emotional exhaustion and depersonalization scores of sub samples according to the gender. In the group of male teachers; there was a statistically significant positive correlation between the emotional exhaustion and depersonalization, a slightly negative correlation (r=0.05) between the emotional exhaustion accomplishment and personal statistically significant negative correlation (r = 0.00)between depersonalization and personal accomplishment. In the group of female teachers';

there was a positive correlation between the emotional exhaustion and depersonalization and a negative correlation (r= 0.019) between the emotional exhaustion and personal accomplishment.

Turkish teachers' suffered from burnout less than that of the teachers in many developed countries.

2.4 Rationale of the study:

The teacher is the most important element in any educational program. It is the teacher who is mainly responsible for implementation of the educational process at any stage. No amount of investment in improving the physical and educational facilities can improve education there are adequate number of well qualified teachers who can and willingly implement the educational process in such a way that it brings about a desired educational development of the students. It is, therefore, important that the teacher is well prepared to do

his/her work efficiently and effectively. The quality of teacher depends, to a large extent, on the quality of teacher education received by him/her.

Ironically, today's technically super advanced life with lots of stress and strain hardly provides any congenial atmosphere for any thinker to think, any policy maker to do constructive framing of policy and above all any teacher to teach with sincerity and dedication. The daily interaction with pupils, co-workers and the incessant and fragmented demands of the teaching in general, often lead to overwhelming pressures and challenges, which lead to stress and ultimately to burnout...

While chatting with teachers individually and collectively it was found that the teachers working in the engineering colleges and polytechnics were under pressure from different directions. Teaching can be considered as a high stress occupation. The

education system has all the elements associated with stress:

- Bureaucratic structures
- Continuous evaluation of its process and outcomes.
- Increasingly intensive interpersonal interactions with students, parents, colleagues, principals and the community.
- Increased student misconduct
- Student apathy
- Overcrowded classrooms
- Inadequate salaries
- Demanding or unsporting parents
- Budgetary constraints
- Expanding administrative loads
- Lack of infrastructural support
- Increasingly negative public opinion.
- Norms and standards set by AICTE

- Rules and regulations set by concerned university and boards.
- Expectations of competent bodies from institutions
 to go hand in hand with changing times
- Competitive attitude of institutions for the attainment of higher grades from NBA/ISO.
- Lack of promotion or vertical mobility.
- Management's expectations for optimum utilization of minimum resources.
- One's own pressure to develop professionally.
- Lesser span as also lesser number of full time faculties available.
- Though AICTE pay scales were recommended many teachers were not satisfied with the present consolidated salary available to them because it was hardly sufficient to meet their monthly expenses.
- Unemployment of passed out students.

- Majority of teachers were not regularized /confirmed even after long years of service.
- Lack of freedom available to the teachers for implementing innovations.
- Teachers do not get quality improvement program
 (QIP) facilities.
- Lack of adequate government accommodation available to the teachers.
- Lack of facilities and amenities provided to teachers.
- normally do • Administrators not take any disciplinary action on the misbehavior of students, they show leniency to rather the students' community, and result. the students as a misbehave with the teachers.
- Lack of infrastructure and modern teaching aids.
- Due attention is not paid by the administrators to the problems faced by the individual teacher.
- Micro politics in staff and students.

These and similar factors have contributed to the embattled and embittered teacher force throughout the world.

Above all society entrusts responsibility of producing good engineers and citizen on teachers. But adverse circumstances ofunlimited in circumference, it is hard task for a teacher to accomplish all the specified task objectives with a required level of commitment and competence. The entire time teacher is the which on toes. unconsciously take him to stress then to distress and finally burnout.

2.5 Concept of burnout:

Burnout was first defined by Freudenberger (1974) and involves the feeling of failure and exhaustion resulting from excessive demands on a person's energy with insufficient reward for the effort. Other researchers have defined burnout as psychological distancing from work (Maslach,

1976).Block and Freudberger (1983) had identified many of the symptoms associated with burnout, which can be categorized into three groups:

- Physical: exhaustion, lingering cold, frequent headaches, gastrointestinal disturbances, weight loss, sleeplessness, and shortness of breath.
- Psychological: changeable mood, irritability, depression, loss of caring for people, cynical attitude, increased frustration, feeling of helplessness, greater professional risk taking.
- Behavioral: Deterioration in work, performance and absenteeism.

Burnout is a "loss of concern for the people with whom one is working in response to job related stress."

Webster's International Dictionary (1976) states that, "burnout means to fail, to wear out, or to become exhausted by reasons of exclusive demands on energy, stress or resources".

Cherniss (1980) defined burnout as a psychological withdrawal from work in response to excessive stress or dissatisfaction.

Meyer (1980) defined burnout as the psychological state of mind of a professional worker who feels overworked, overwhelmed and alienated from other staff, from clients and eventually from himself.

Burnout refers to a loss of 'enthusiasm excitement and a sense of mission in one's work

Burnout the idea of conveys energy extinguished, the fire of enthusiasm dampened. It is a common reaction to job stress and it reduces their motivation and effectiveness of many human service workers. Burnout is a complex, socio - psychological that deserves more serious phenomenon study. reviewing various definitions However, from different disciplines it is possible to conclude that though there exists some differences, there are some marked similarities among the definitions of burnout.

Burnout occurs at an individual level; few instances of organizations burning out have been reported. However, it is not clear whether this means individual workers are experiencing burnout or that some unique occurrences take place at the organizational level.

Burnout is an internal psychological experience involving feeling, attitudes, motives and expectations.

Burnout is a negative experience for the individual, in that it concerns problems of distress, discomfort, dysfunction and negative consequences. Although the experience is negative, some have argued that it may still serve as a positive function, as it leads to personal growth or acts as screening device to 'weed out' incompetent employees

Studies conducted in Europe indicated that teachers are three times more likely to quit their jobs and even more likely to want to quit their jobs than are similarly trained professionals.

Job burnout is a problem in many professions, but it significantly more prevalent in the helping professions. Teachers, as well as administrators, counselors, doctors, nurses, police officers, and soon have the additional burden of extreme responsibility for the well being of others on top of the multitude of stressors that stem from routine job activities. This heavy responsibility combined with limited resources, long hours, marginal working conditions, and often unreasonable demands from those receiving services, lead to chronic stress, and ultimately, burnout.

It is unlikely that any single isolated symptom can be viewed as an indication of burnout. Various combinations of the above represent the

manifestations of burnout. If these issues are not addressed, eventually, the individual loses desire and motivation, and is unable to fight or flee what is perceived to be an impossible situation. On a global scale, burnout can lead to serious consequences in the individual, organization and the students.

Literature findings suggest that administrators and school policy makers must help reading teachers to cope with stress. Efforts are needed to help teachers feel better about the job they doing. School intervention programs are needed to help teachers to deal with problems before they reach dangerous levels.

2.6 Concept of job satisfaction:

Job satisfaction is something that everyone understands and experiences but finds it very difficult to define. It is an attitude that are positive

and negative feelings about the of individual's physical and cognitive environment.

Job satisfaction refers to individuals subjective feeling on his/her work situation; his / her response and feeling towards different facts of his work role. It is not a unitary concept but a composite of many factors or dimension.

Bullock (1952) considers job satisfaction 'as an attitude which results from a balancing and summation of many specific likes and dislikes in connection with his job'.

Blum (1956) related job satisfaction with general satisfaction and feels that job satisfaction in part may be a function of general satisfaction or attitude towards life.

Vroom (1964) conceptualized job satisfaction as the affective orientation of individuals towards work roles that they are presently occupying.

Sinha and Aggarwal (1971) defined job satisfaction as a persistent affective state which has arisen in the individual as a function of the perceived characteristic of his job in relation to his frame of reference.

McCormick and Ilgen (1985) proposed job satisfaction is a specific subset of attitudes held by organizational members. It is the attitude they have toward their jobs. An attitude is an emotional response toward something (in this case a job) which can vary from positive to negative, in any degree. Whatever might be said about attitudes in general applies to job satisfaction in particular

Hoy and Miskel. 1991 In education settings, job satisfaction is a present and past oriented affective state of like or dislikes that result when the educator evaluates his or her work role

Gorton (1976), the employees' satisfaction and morale are attitudinal variables that reflect positive

or negative feelings about particular persons or situations, "satisfaction", when applied to the work context of teaching, seems to refer to the extent to which a person can meet individual personal and professional needs as an employee.

Goyal (1980) concluded that large majority of teachers educators he surveyed were favorably inclined towards their jobs and were satisfied in the job.

Shah (1982) studied socio – economic background of primary school teachers and job satisfaction and found that most of the women teachers (82%) were satisfied with their jobs.

The researcher feels that teacher cannot be eliminated from teaching learning process and will continue to play a vital role in nation building. The study on job satisfaction will be important and continue to remain important for keeping talents in the teaching profession. Job satisfaction relates to

the mental satisfaction of a teacher with his job and job conditions. On the basis of evaluation of relationship between variables and job satisfaction, necessary guidelines could be provided against the various job satisfactory constraints.

2.7 Summary:

A thorough survey of the related literature is an integral part of the research work. Related literature is the foundation on which the structure of further studies is held. It is a crucial aspect of the planning of the study, and the time spent in such a survey is a fruitful phase of a research program. Every researcher must know what sources are available in his field of enquiry, some of them he is likely to use and where and how to find them. It enables the individual not only to gain familiarity with the knowledge of the past performance and developments in the concerned area but also enhance the ability of the individual to make his own

contribution towards increasing the previous stock of knowledge either by adding something altogether new or developing the old one with a new perspective.

The researcher critically examined 60 researches from India and abroad. He compared them with his own research work. It was found that very few researches have been done on burnout in the area for engineering teachers.

The survey of related literature helped the researcher in avoiding duplication of work. Also it helped to examine relevancy and authenticity of research work.

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CHAPTER III PROFILE OF THE STUDY AREA

- 3.1 Introduction
- 3.2 Area of operation
- 3.3 Respondent institutions
- 3.4 Summary
- 3.5 References

3.1 Introduction:

Descriptions /locations of the study area to which the proposed research problem is concerned, needs to be clearly indicated in the research problem. This is one of the essential ingredients of a good research proposal. The receiver agency to which the proposal is to be submitted will understand the location of the study which is chosen by the receiver.

In the study undertaken the study area was confined to the six self financing engineering colleges and the four unaided polytechnics of Jalgaon district.

Selection of the study area is justified methodologically as this district has six unaided colleges and four polytechnics and one Government run engineering college and one polytechnic respectively. The engineering colleges are affiliated to North Maharashtra University Jalgaon while the polytechnics to the Maharashtra State Board of Technical education, Mumbai.

3.2: Area of Operation: The area of study was as follows:

A) North Maharashtra university:

The North Maharashtra University, Jalgaon is one of the upcoming universities in India; the University was established on 15 August, 1990 under the Maharashtra University Act XXIX of 1989 as a teaching and affiliating University.

The university is imparting education to students through various courses at graduate, postgraduate, doctoral and post doctoral level, under 09 faculties which includes Science, Engineering & Technology, Education, Medicine & Pharmacy, Ayurvedic Medicine, Arts & fine Arts, Commerce and Management, Mental, Moral & Social Science and Law Faculty.

Right now there are 6 schools and 11 academic departments on the campus. They are:

School of physical sciences

School of chemical sciences.

School of life sciences.

School of mathematical sciences.

School of Environmental and Earth Sciences

School of social sciences

The various departments are:

Department of chemical technology.

Department of computer science

Department of management studies

Department of information technology

Department of comparative language literature

Department of library and information science.

Department of organic chemistry.

Department of law.

Pratap philosophy center, Amalner.

There are more than 200 colleges and 37 institutes and 17 recognized research and development centers affiliated to the University.

The University has developed a model examination system and is one of the few universities in the state for conducting examinations regularly and declaring the results well in time as per the Maharashtra Universities Act, 1994.

In a very short period of time the university gained name and fame on national and international levels. The university has acquired the prestigious 2(f) & 12(b) recognition from the UGC. The university has been re-accredited with 'B' (CGPA 2.88) grade duly honored by the National Assessment and Accreditation council (NAAC) Bangalore.

(B)Directorate of technical education:

The role of the Directorate is to maintain and enhance the standard quality technical education by laying the policies, establishing and developing government institution, guiding and supervising the private institutions, interacting with industry and national level institutions, coordination with other departments of the state government and to contribute to the industry and society at large.

The following table gives the idea about development of technical education since 1978:

Table 3.1

Degree Institutions

Type of Course	Year.	No of Institutes.	Intake
	1978	16	2542
Degree Course in	1988	76	14275
Engineering	1995	94	22240
	2000	129	38939
	2005	154	46325
	2010	309	114268

Table 3.2

Diploma Institutions

Type of Course	Year.	No of Institutes.	Intake
	1978	28	5145
Diploma Course in	1988	127	23436
Engineering	1995	160	30000
	2000	170	34295
	2005	274	68685
	2010	387	132632

(C) Maharashtra board of technical education:

It is primarily intended to conduct state level examinations of diploma courses. It has to see continuously improving the quality of technical education and maintaining of its standard. It also redesigns the course curriculum regularly with respect to the rapid technological changes in the industries.

Organizational Structure of MSBTE:

3.3. Respondent institutions:

The study was limited to all the six unaided engineering colleges and four polytechnics of Jalgaon district, approved by AICTE New Delhi.

The details of such colleges under study are given below.

(A) Degree colleges under study:

Table 3.3

Institute Name	T.M.E. Society's J.T.Mahajan	
	College of Engineering, Faizpur	
Status	Un-aided / non-autonomous / non-	
	minority	
Year of establishment	1984	
University	North Maharashtra University,	
	Jalgaon	
Courses	Intake	
Civil engg.	60	
Electronics& Comm engg	120	
Mechanical engg	120	
Computer engg	60	
Information Technology	60	

Table 3.4

Institute Name	Hindi Seva Mandal's Shri
	Sant Gadgebaba College of
	Engineering & Technology,
	Bhusawal
Status	Un-aided / non-autonomous /
	linguistic minority-hindi
Year of establishment	1998
University	North Maharashtra University
Courses	Intake
Electronics & comm. engg	120
Computer Science and engg	60
Electrical engg	30
Civil engg	30
Mechanical engg	120

Table 3.5

Institute Name	Godavari Foundation's
	Godavari College Of
	Engineering, Jalgaon
Status	Un-aided / non-autonomous /
	non-minority
Year of Establishment	1999 [AICTE Period of
	Approval 2008 - 2010]
University	North Maharashtra University
Courses	Intake
Computer engg	120
Electronics & Comm engg	90
Information Technology	30

Table 3.6

Institute Name	Shrikrishna Educational &	
	Cultural Mandal's Shri	
	Sureshdada Jain College of	
	Engineering, Jalgaon	
Status	Un-aided / non-autonomous /	
	non-minority	
Year of Establishment	1999	
University	North Maharashtra University	
Courses	Intake	
Automobile engg	60	
Computer engg	90	
Mechanical engg	90	

Table 3.7

Institute Name	K.C.E. Society's College of	
	Engineering and Information	
	Technology, Jalgaon	
Status	Un-aided / Non-autonomous /	
	Non-minority	
Year of Establishment	2001	
University	North Maharashtra University	
Courses	Intake	
Computer engg	90	
Electronics & Comm engg	60	

Table 3.8

Institute Name	Shrama Sadhana Trust's
	College of Engineering and
	Technology,
	Bambhori,Jalgaon
Status	Un-aided / non-autonomous /
	non-minority
Year of Establishment	1983
University	North Maharashtra University
Courses	Intake
Computer engg	120
Electronics & comm. engg	120
Chemical engg	30
Computer engg	120
Biotechnology	30
Information technology	60
Mechanical engg	120
Civil engg	60
Electrical enggs	60

(B) DIPLOMA COLLEGES UNDER STUDY

Table 3.9

Institute Name	Shree Sant Muktabai
	Sansthan's Shri Sant
	Muktabai Institute of
	Technology, Jalgaon
Region	Nashik
Status	Un-aided / non-autonomous /
	non-minority
Year of establishment	1983
Courses	Intake
Chemical engg	40
Civil engg	30
Electronics& comm engg	40
Computer engg	40
Mechanical engg	40

Table 3.10

Institute Name	Shri Krishna Education &
	Cultural Mandal's Shri
	Sureshdada Jain Polytechnic,
	Jalgaon
Region	Nashik
Status	Un-aided / non-autonomous /
	non-minority
Year of establishment	1997
Courses	Intake
Automobile engg	60
Electronics& comm engg	90
Mechanical engg	90
Computer engg	60
Electrical engg	40

Table 3.11

Institute Name	MGTS Mandal's
	Sharadchandrika Suresh Patil
	Institute of Technology
	(Polytechnic), Chopda
Region	Nashik
Status	Un-aided / non-autonomous /
	non-minority
Year of establishment	1983
Courses	Intake
Electrical engg	30
Industrial electronics	30
Mechanical engg (Industry	60
Integrated)	
Computer engg	60
Information technology	60

Table 3.12

Institute Name	Technical & Medical
	Education Society's J. T.
	Mahajan Polytechnic, Faizpur
Region	Nashik
Status	Un-aided / non-autonomous /
	non-minority
Year of establishment	1983
Courses	Intake
Civil engg	30
Electrical engg	60
Electronics & comm engg	60
Mechanical engg	60
Computer technology	60

3.4 Summary:

For the present study samples of college and

polytechnics teachers were taken up following a descriptive survey

method from 6 unaided engineering colleges and 4 unaided

polytechnics of Jalgaon district. All 540 teachers were

administered the tools out of which 120 teachers were included in

sample. Every care was taken to see that every sample got equal

opportunity of being selected and unbiased selection was made. In

this way the selected samples represented a sample universe and

hence this study would be representative in character.

3.5 References

http://www.nmu.ac.in

http://www.aicte-india.org

http://www.dte.org.in

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CHAPTER IV RESEARCH METHODOLOGY

- 4.1 Introduction
- 4.2 Research design
- 4.3 Population and sample
- 4.4 Tools used for research
- 4.4.1 Description of burnout inventory
- 4.4.2 Description of job satisfaction scale
- 4.5 Administration and collection of tools
- 4.6 Problems faced in data collection
- 4.7 Summary
- 4.8 References

4.1 Introduction:

Research design is a comprehensive plan of research work and sequence of operation with regard to the proposed research problem like data collection, organization selection, respondent's selection, duration of study, defining the scope of study location, identifying the study, fixing estimation, data analysis, parameters, cost presentation of findings etc that a researcher intends to carry out to accomplish research objectives. The other hand, is research methodology on the concerned with identifying and selecting suitable, appropriate and logically justifiable research methods and techniques like data collection method whether observation method or survey method; data collection instrument whether open ended or close ended questionnaire; respondents contact method whether telephone or mail interview; sampling unit, sample size, sampling tool, data analytical tool etc.

More importantly, research Methodology emphasizes on reason or logic behind selecting each method or technique for carrying out proposed research. Therefore, a methodologically designed research is regarded to be a scientific research.

4.2 Research design:

As the study involved determining relationship of burnout with job satisfaction, age gender and experience, a descriptive and co-relational method of research was used in conducting the study.

A descriptive study describes and interprets what is. It is concerned with conditions or relationships that exist, opinions that are held, processes that are going on, effects that are evident, or trends that are developing. It is primarily concerned with the present, although it often considers past events and influences as they relate to current conditions. Descriptive research, sometimes known a non – experimental or co relational

research, deals with the relationships between variables, the testing of hypothesis and the development of generalizations principles or theories that have universal validity. It is concerned with functional relationships. The expectation is that if variable A is systematically associated with variable B, prediction of future phenomenon may be possible and the results may suggest additional or competing hypothesis to test.

In carrying out a descriptive research project, the researcher does not manipulate the variable, decides who receives the treatment, or arrange for events to happen. In fact the events that are observed and described would have happened even though there had been no observation or analysis. Descriptive research also involves events that have already taken place and may b related to a present condition.

The method of descriptive research is particularly appropriate in the behavioral sciences because many of the types of behavior that interest the researcher cannot be arranged in a realistic setting. Introducing significant variables may be harmful or threatening to human subjects. Ethical preclude considerations often exposing human subjects to harmful manipulation. For example, it be unthinkable for an experimenter to randomly decide who should smoke cigarettes and who should not smoke them for the purpose of studying the effect of smoking on cancer, heart disease or other illness thought to be caused by the cigarette smoke. Similarly, to deliberately arrange auto accidents, except when manikins are used in order to evaluate the effectiveness of seat belts or other restraints in preventing serious injury is absurd.

Although many experimental studies of human behavior can be appropriately carried out both in the laboratory and in the field, the prevailing research method of the behavioral sciences is descriptive. Under the conditions that naturally occur in the home, office, classroom, college or the factory, human behavior can be systematically examined and analyzed.

Descriptive studies are characterized by disciplinary inquiry which requires expertise, objectivity and careful execution. They develop knowledge, adding to what is already known. They use similar techniques of observation, description and analysis. The differences between them lie in the motivation of researcher, the treatment of the data, the nature of the possible conclusions and the use of the findings. Only descriptive research studies lead to generalizations beyond the given sample and situation.

4.3 Population and sample:

This is a descriptive connected through quantitative analysis aiming at studying the relationship between burnout and some personal parameter and also their perceptions regarding teaching profession.

Teachers from all the six unaided engineering colleges affiliated to north Maharashtra University, Jalgaon and four unaided polytechnics offering diploma courses in engineering and affiliated to MSBTE, Mumbai for session 2006-07 constituted the population of the study. At the time of administration of tools there were 540 teachers. This constituted the population.

Table4.1
Population

78 76
76
70
50
51
60
45
42
33
35
540

*As on March 2008

Sample:

Initially all the **540** teachers working in 10 selected institutions, were administered the burnout inventory.**257** questionnaires were received, out of which **37** were invalid due some reason or the other. On the basis of their total score, **220** teachers were

divided into two categories, namely teachers with high burnout (top 27%) and the teachers with low burnout (bottom 27%) Both the categories consisted of 60 teachers each.

Thus 120 teachers constituted the final sample of teachers. It is about 22.2% of the population

Table 4.2
Sample

	No. of teachers			
Institution	High burnout score	Low burnout score		
1	9	8		
2	6	7		
3	5	7		
4	7	8		
5	6	6		
6	4	6		
7	6	5		
8	5	4		
9	5	4		
10	7	5		
Total	60	60		

Table 4.3

Details of sample

No	Head	No of teachers	%				
Gender							
1	Male	98	81.66				
2	Female	22	18.33				
	Age						
3	Up to 30 yrs	52	43.16				
4	31 to 45 yrs	38	31.54				
5	Above 45	30	24.90				
Teaching experience							
6	1 to 5 yrs	56	46.48				
7	6 to 15 yrs	42	34.86				
8	Above 15 yrs	22	18.26				

4.4 Tools used for research:

The following tools to measure the level of job satisfaction and burnout in teachers under study.

- 1. Burnout inventory prepared by the researcher. (2006)
- Job satisfaction scale prepared by the researcher.
 (2006)

The details of both the tools have been provided in the appendix.

4.4.1 Burnout inventory (2007):

The burnout inventory used in this study was prepared on the lines of Maslach Burnout Inventory (MBI 1986) and Burnout Inventory developed by Menon and Dutt (1996). It was used to measure teacher burnout. This questionnaire consisted of 40 statements (out of which 28 statements are worded in positive direction and 12 statements are worded in negative direction) to access the burnout level in teachers. Following is the details:

Table 4.4

Features of burnout inventory

Statement No.	Aspects of burnout				
1 to 11	Emotional exhaustion and work				
	context factors				
12 to 19	Organizational factors				
20 to 28	Depersonalization and alienation				
29 to 40	Personal accomplishment				

The items in the questionnaire were of seven point response categories:

- 0 stood for 'never'
- 1 stood for 'a few times a year'
- 2 stood for 'once a month or less'
- 3 stood for 'a few times a month'
- 4 stood for 'once a week';
- 5 stood for 'a few times week' and
- 6 stood for 'every day'

The respondent had to put the respective number in appropriate space given against each statement in accordance with his/her perception. The instruction guiding teacher response on the burnout scale was 'Please describe how you have been feeling over the past two or three months in colleges and polytechnics'.

Scoring:

There were two items: (a) positive items and (b) negative items. The positive item carried weights of 0,1,2,3,4,5 and 6 respectively for a categories of Never, a few times a year, once a month or less, a few times a month, once a week, a few times a week and every day. A negative was to be scored 6, 5, 4,3,2,1, and 0 for the same categories respectively. The total score was the summation of all the positive and negative items score. The minimum score obtained could be zero and maximum 240 and others scores ranging in between

Table 4.5

Major characteristics of burnout inventories referred by the researcher

Authors	Characteristics	Items	Response	Reliability
			category	By test retest
				method
Maslach	1.Emotional	22	07	0.90
(1986)	Exhaustion			0.79
	2.Depersonalization			0.71
	3.Lack of personal			
	accomplishment			
Menon	As above	40	07	0.82
and Dutt				
(1996)				
Randolph	1.Work context			0.80
Warley	factors	73	06	
(1992)	2.Organizational			
	factors			
	3.Alienation factors			

In data processing all items were to be scored, so that a high score on the burnout scale would indicate a higher level of self reported burnout.

4.4.2. Job satisfaction scale (2007):

The scale used in this study was prepared on the lines of Generic job satisfaction scale developed by Scott Mcdonald and Peter Macintyre (1997) and Job satisfaction scale developed by Chandel (1978). It was used to measure job satisfaction. It was constructed to cover the following aspects of job satisfaction.

- 1. Workplace and job related factors
- 2. Personal and organizational factors
- 3. Social factors.

The scale consisted of 24 items covering the vast areas of job satisfaction or dissatisfaction. The statements needed to be responded on five point scale i.e. strongly agree, fairly agree, neutral /

undecided, fairly disagree and strongly disagree. The reliability of the test as a whole had been reported as +0.942 which was based on the test retest method. This value of reliability must be treated as fairly high. Item wise test - retest correlations were found to be between +0.621 and +0.950. All the values of the co-efficient of correlations significant at 0.01 level of were significance. It was found that the scale had good face validity and content validity. In cross validity it was found that relationship between the two groups (from two populations) had +0.69 which means that the relationship between the results of the two situations was positive and high.

Scoring:

For the job satisfaction scale the following scores were assigned to each statement:

- 5 for strongly agree
- 4 for fairly agree

- 3 for neutral/undecided
- 2 for fairly disagree and
- 1 for strongly disagree.

The scores of all the statements of the job satisfaction scale for each respondent was added to obtain the overall job satisfaction. The minimum score obtained can be 24 and maximum 120 and other scores ranging in between.

In data processing all items were to be scored so that, high score on the job satisfaction scale would indicate a higher level of job satisfaction.

Table 4.6

Major characteristics of job satisfaction scales
referred by the researcher

Characteristics	Items	Response	Reliability	Sample
		category	By test	
			retest	
			method	
1)Job	44	05	0.77	885
characteristic				working
2)Workplace				adults
effect				
3)General				
affective				
reactions				
4)Personal				
problems				
1) Personal	24	05	0.942	200
2) Job related				teachers
3) Social.				
	1)Job characteristic 2)Workplace effect 3)General affective reactions 4)Personal problems 1) Personal 2) Job related	1)Job 44 characteristic 2)Workplace effect 3)General affective reactions 4)Personal problems 1) Personal 24 2) Job related	category 1) Job 44 05 characteristic 2) Workplace effect 3) General affective reactions 4) Personal problems 1) Personal 24 05 2) Job related	category By test retest method 1)Job 44 05 0.77 characteristic 2)Workplace effect 3)General affective reactions 4)Personal problems 1) Personal 24 05 0.942 2) Job related

The scale prepared by the researcher had the following advantages:

- (a) Quite comprehensive and applicable to various jobs.
- (b) The scale had high reliability and validity.
- (c) Though the scale consisted of 24 items yet it covered vast areas of job satisfaction and dissatisfaction which was quite sufficient for the purpose of present study.
- (d) Scale was relevant to practically any occupation. No significant in scale averages were found among the occupational groups or between males and females.
- (e) Overall scale means were consistent for the workers between the ages of 20 and 60.
- (f) It is comparatively a shorter scale so that its length would not be a deterrent for practical application in the workplace

- (g) Various facets of job satisfaction were measured with single item in order to cover the widest possible domains.
- (h) Although idiosyncrasies in the individual or the workplace exist, the focus remains on the respondent's evaluation of his satisfaction with that job.

4.5 Administration and collection of the tools:

The researcher visited all the six engineering colleges and four unaided polytechnics under study and personally administered the burnout inventory and the job satisfaction scale to the teachers.

After explaining the purpose of the study and emphasizing its importance, the teachers were asked to co-operate by providing their free and frank opinion. Respondents were asked not to place their names on the questionnaires so that the information obtained from the questionnaires would remain completely anonymous. The position was as follows

Table 4.7
Collection of data

Head	quantity	%
Questionnaires administered	540	100
Questionnaires received	257	47.59
Questionnaires incomplete and invalid	37	6.85
Valid questionnaires	220	40.74

The entire month of April & May 2008 was used for administering the different tools to the teachers in the sample.

The authorities of all the six engineering cand four unaided polytechnics under study were intimated the dates on which the researcher was supposed to visit the respective institutions personally to collect the response sheet from the teachers.

Entire period from **June to August 2008** was used for this purpose. Lots of problems were

encountered by the researcher and are discussed subsequently.

4.6 Problems faced in data collection.

- 1) Though prior appointment was taken, very few respondents were actually available at the specified time in the institution.
- 2) Some respondents flatly refused to return the questionnaire. A set of new questionnaire was required to be handed over them again.
- 3) A few respondents requested to come another time for collecting the questionnaire.
- 4) Some respondents were very busy with their schedule and refused to entertain the researcher.
- 5) Some criticized it as an activity meaningless and did not think it proper to waste their time in filling up the questionnaire.
- 6) Some respondents asked for a new set of questionnaire on every visit.

- 7) Some respondents asked the researcher to meet them at their residences but failed to keep up their promises.
- 8) On reminding about the questionnaire on cell phone, some respondents either cut off the phone or did not pick up the phone.
- 9) Some respondents required explanation in the questionnaire.
- 10) Few respondents had language problem in understanding the questionnaire.
- 11) The teachers disliked the idea of being assessed.

 They were reluctant to give response either due to egoism or apathy to the study.

It was really a challenging task for the researcher to collect the information from the target group. It took nearly three months from June to August 2008 to collect the questionnaires.

4.7 Summary:

The researcher after identifying the sample and the research design went on to administer the tools on the sample.

Since the study area was limited to Jalgaon district the researcher had to personally visit all the six unaided engineering colleges and four unaided polytechnics of Jalgaon district to administer the questionnaire, number of times during the month of April & May 2008. The data collection was a challenging task. It took nearly three months to collect the responses. The work of collecting the questionnaire was completed in August 2008.

The analysis of responses received and the statistical analysis of data is discussed in the subsequent chapters.

4.8 References:

Best, J&Kahn, J. (2001) <u>Research in Education</u>. New Delhi: Prentice Hall of India.

CHAPTER V DATA ANALYSIS AND FINDINGS

- 5.1 Introduction
- 5.2 Description of data
- 5.3 Interpretation of data
- 5.4 Analysis of collected information from burnout Inventory.
- 5.5 Analysis of collected information from job satisfaction scale.
- 5.6 Interpretation of results of analysis
- 5.7 Computation of product moment correlation
- 5.8 Interpretation of results of correlation
- 5.9 Testing statistical significance (t-test).
- 5.10 Interpretation of results of t-test
- 5.11 Summary
- 5.12 References.

5.1 Introduction:

In this chapter analysis of the information collected by the researcher through the tools employed for the study has been made and it is the core of the thesis.

The results and various observations are presented on the basis of the background information, perceptions and feed back of respondents from different target groups of the sample.

For the analysis of the collected information simple method of analysis was used and presented in the tabular form. For drawing inferences the researcher has relied upon percentage, average, mode and rank methods as the statistical techniques.

5.2 Description of Data:

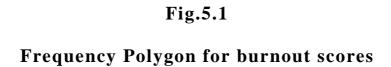
In this unit the researcher has dealt in detail with the description of data collected with the help of the tools employed in the study. The researcher felt essential to examine the nature of the distribution of scores to ascertain whether the data collected was appropriate for computing further statistical analysis.

For this purpose, the researcher has used the descriptive statistical methods, which were employed primarily to describe what have been observed, the sole purpose was to describe the behavior of a variable and no attempt was made to analyze and to interpret the data. The data were collected, organized and presented by tables and diagrams to describe the behavior of the data.

The researcher has computed the mean, median, and standard deviation, for burnout, job satisfaction age and experience. Also skewness and kurtosis were worked out to observe the trend of departure of the sample distribution from normal probability curve

Table 5.1
Frequency distribution of burnout scores of the total sample.

Class Interval	Mid Points	Frequency
121-130	125.5	01
111-120	115.5	01
101-110	105.5	01
91-100	95.5	02
81-90	85.5	07
71-80	75.5	10
61-70	65.5	11
51-60	55.5	15
41-50	45.5	21
31-40	35.	28
21-30	25.5	10
11-20	15.5	08
1-10	5.5	05



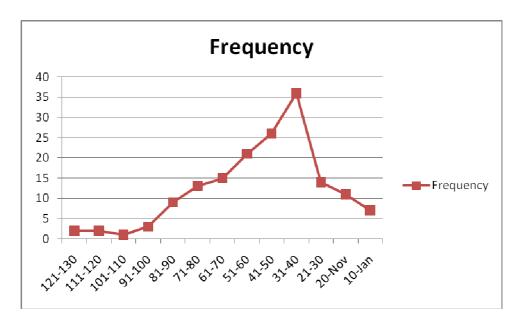


Table 5.2

Frequency distribution of Job satisfaction scores of the total sample

Class Interval	Mid Points	Frequency
111-120	115.5	05
101-110	105.5	08
91-100	95.5	30
81-90	85.5	35
71-80	75.5	20
61-70	65.5	14
51-60	55.5	06
41-50	45.5	02

Fig 5.2
Frequency polygon for job satisfaction scores

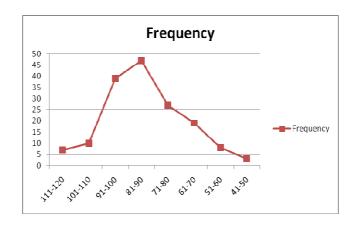


Table 5.3

Values obtained in descriptive statistics

Variable	Mean	Median	Standard	Skewness	Kurtosis
			deviation		
	M	Md	SD	SK	Ku
Burnout	47.53	44.16	23.97	0.45	0.31
Job satisfaction	84.92	85.23	15.47	-0.34	0.31
Age	36.94	31.06	10.43	1.86	0.31
Teaching experience	12.1	7.69	12.71	1.23	0.31

5.3 Interpretation of data obtained:

1. The value of mean and median for **burnout** showed a departure from each other. (Departure = 3.37).

The value of standard deviation (23.97) represented the scattered scores from mean position.

The value of skew-ness (0.45) however did not exceed the acceptable limits at 0.01 levels; of significance which is \pm 0.49 Skew-ness is significant at 0.05 level = \pm 0.37 it is slightly positively skewed at 0.05 level of significance.

The value of kurtosis (0.31) was found to be within the safe limits at 0.01 levels of significance which vary from -0.73 to 1.26. It shows the mesokurtic distribution for the independent variable burnout.

Refer **fig.no.5.1** showing the characteristics of a frequency curve of burnout scores, it was observed that the distribution of the scores was nearly normal .i.e. the frequencies did not pile up at any side of the polygon.

2. The value of mean and median for job satisfaction showed a slight variation from each other.

(Variation=-0.31).

The value of standard deviation (15.47); represented the scattered scores from mean position.

The value of skew-ness (-0.34) however did not exceed the acceptable limits at 0.05 level; of significance which is \pm 0.37

The value of kurtosis (0.31) was found to be well within the safe limits at 0.01 level of significance which vary from -0.73 to 1.26. It depicted a mesokurtic distribution for this variable.

Refer **figure no. 5.2** showing the characteristics of frequency curve of job satisfaction scores; it was observed that the distribution of the scores was nearly normal i.e. the frequencies did not pile up at any side of the polygon.

3. The value of mean and median showed some variation from each other. (Variation = 5.88)

The value of standard deviation (10.43); represented the scattered scores from mean position.

The value of skew ness (1.86); was significant at 0.01 level of significance.

The value of kurtosis (0.31); did not exceed the acceptable limits at 0.05 level of significance, thereby showing a mesokurtic distribution for this variable.

4. The value of mean and median showed some appreciable variation from one another. (Variation=4.41)

The value of Standard Deviation (12.71): represented the scattered scores form the mean position.

The value of kurtosis (0.31) did not exceed the acceptable limits at 0.05 level of significance. It showed a mesokurtic distribution for this variable.

It was observed that the values of mean, median, standard deviation, skew ness and kurtosis for burnout and variables like job satisfaction, age and teaching experience did not show large variation and there was not much departure from normality. After confirming the appropriateness of the data, further statistical analysis like correlation and t-test were conducted.

5.4 Analysis of collected information: Burnout Inventory:

Table 5.4

Statement: I feel emotionally drained due to long hours in teaching.

No.	Factors	Response	Round off %
1	Never	53	44.14
2	A few times a year	16	13.32
3	Once a month or less	20	16.66
4	A few times a month	09	7.50
5	Once a week	13	10.82.
6	A few times week	04	3.33
7	Every day	05	4.16
	Total	120	100

Observation: 44% of the teachers never had this feeling, while 16% experienced this feeling once a month or less and 5% every day.

Inference: The majority of the teachers did not suffer from emotional exhaustion. They did not experience monotony and lack of interest in their job. They were found to enjoy teaching.

Table 5.5

Statement: Working with students all day is a strain for me.

No.	Factors	Response	Round off %
1	Never	50	34.98
2	A few times a year	23	19.15
3	Once a month or less	14	11.66
4	A few times a month	12	9.99
5	Once a week	10	8.33
6	A few times week	04	3.33
7	Every day	7	5.83
	Total	120	100

Observation: 35% of the teachers never had this feeling while 19 % had a few times a year. 6% of teachers experienced it every day.

Inference: The majority of the teachers did not exhibit emotional exhaustion and lack of interest in teaching. They found teaching interesting and inspiring.

Table 5.6

Statement: The mere thought of going to the institute makes me sick.

No.	Factors	Response	%
1	never	53	44.14
2	A few times a year	16	13.32
3	Once a month or less	20	16.66
4	A few times a month	08	6.66
5	Once a week	13	10.82
6	A few times week	5	4.16
7	Every day	5	4.16
	Total	120	100

Observation: 44% of the teachers never had this feeling in their mind, while 16% of them had once a month or less. 4% had this feeling every day.

Inference: The majority of the teachers did not suffer from emotional exhaustion. However, 5 teachers were found to be depressed, burnout and dull.

Table 5.7
Statement: I feel I am working too hard on my job.

No.	Factors	Response	%
1	Never	11	9.16
2	A few times a year	18	14.99
3	Once a month or less	20	16.66
4	A few times a month	35	29.15
5	Once a week	28	23.32
6	A few times week	4	3.33
7	Every day	4	3.33
	Total	120	100

Observation: 29% of the teachers felt necessary to work hard every day in teaching, while 16% experienced this feeling once a month or less. 11% never had this type of feeling.

Inference: The majority of the teachers did not suffer from emotional stress and appreciated the fact that teaching needed hard work.

Table 5.8

Statement: I feel frustrated by my job.

No.	Factors	Response	%
1	Never	32	26.65
2	A few times a year	26	21.65
3	Once a month or less	23	19.15
4	A few times a month	19	15.82
5	Once a week	10	8.33
6	A few times week	06	5.0
7	Every day	04	3.33
	Total	120	100

Observation: 27% of the teachers never felt that teaching frustrated them. 21% of them had this feeling a few times of the year, while 3% felt teaching frustrated them daily.

Inference: The majority of the teachers did not suffer from emotional stress and enjoyed the teaching profession. 4 teachers were completely burnout and lacked interest in teaching.

Table 5.9

Statement: I feel used up at the end of the working day at the institute.

No.	Factors	Response	%
1	Never	48	40.00
2	A few times a year	20	16.66
3	Once a month or less	23	19.15
4	A few times a month	10	8.33
5	Once a week	08	6.66
6	A few times week	06	4.99
7	Every day	05	4.16
	Total	120	100

Observation: 40% of the teachers never had this feeling while 20% of them experienced it once a month or less.4% of them had this feeling every day.

Inference: The majority of the teachers did not suffer from emotional exhaustion. They found teaching interesting. However 5 teachers had this feeling everyday and were emotionally exhausted.

Table 5.10

Statement: Working with students and teachers put too much stress on me.

No.	Factors	Response	%
1	Never	42	34.98
2	A few times a year	24	20
3	Once a month or less	21	17.49
4	A few times a month	14	11.66
5	Once a week	08	6.66
6	A few times week	06	5.00
7	Every day	05	4.16
	Total	120	100

Observation: 35% of the teachers never had this attitude while 17% of them had this feeling once a month or less.4% of teachers had this feeling every day.

Inference: The majority of the teachers did not suffer from monotony and dullness of job. They were not emotionally stressed. However 4% of them had this feeling everyday and were burnout.

Table 5.11

Statement: I feel fatigued when I get up in the morning, and have to face another day on the job.

No.	Factors	Response	%
1	Never	43	35.81
2	A few times a year	18	15.0
3	Once a month or less	17	14.16
4	A few times a month	20	16.66
5	Once a week	09	7.49
6	A few times week	06	5.0
7	Every day	07	5.83
	Total	120	100

Observation: 36% of the teachers never felt fatigued to teach while 17% felt so a few times a month.6% of teachers felt tired to face the classroom every day.

Inference: The majority of the teachers did not suffer from emotional exhaustion. They loved and enjoyed their profession. 7 teachers were fully burned out.

Table 5.12
Statement: I feel burned out from my work.

No.	Factors	Response	%
1	Never	38	31.65
2	A few times a year	18	14.99
3	Once a month or less	24	19.99
4	A few times a month	20	16.66
5	Once a week	09	7.49
6	A few times week	05	4.16
7	Every day	06	4.99
	Total	120	100

Observation: 32% of the teachers never had this feeling, while 20% had this feeling once a month or less.5% of teachers had this feeling every day.

Inference: The majority of the teachers did not suffer from emotional drain and burnout. They enjoyed sharing their work and feelings with students and colleagues.

Table no.5.13

Statement: Shouting in the class from morning onwards spoils my health.

No.	Factors	Response	%
1	Never	33	27.48
2	A few times a year	24	20.00
3	Once a month or less	20	16.66
4	A few times a month	15	12.49
5	Once a week	13	10.82
6	A few times week	07	5.83
7	Every day	08	6.66
	Total	120	100

Observation: 27% of the teachers never had this feeling, while 20% had this feeling a few times a year. 6% teachers had this feeling every day.

Inference: The majority of the teachers did not suffer from emotional exhaustion. They did not entertain that the fact that teaching involved shouting and was not harmful to health. However 8 teachers had this feeling everyday and reported a higher level of burnout.

Table no.5.14

Statement: I feel irritated when students come to discuss their problem with me.

No.	Factors	Response	%
1	Never	26	21.65
2	A few times a year	23	19.15
3	Once a month or less	24	20.00
4	A few times a month	07	5.83
5	Once a week	20	16.66
6	A few times week	15	12.50
7	Every day	05	4.16
	Total	120	100

Observation: 22% of the teachers never got irritated when the students came to them with their problems.19% had this feeling a few times a year and 20% a once a month or less.4% of the teachers had this feeling every day.

Inference: The majority of the teachers did not suffer from emotional exhaustion and readily helped and cooperated with the students. 5 teachers had this feeling every day as they were emotionally exhausted

Table no.5.15

Statement: No one gets appreciation for the work one does here in this institute.

No.	Factors	Response	%
1	Never	34	28.32
2	A few times a year	21	17.5
3	Once a month or less	16	13.32
4	A few times a month	23	19.15
5	Once a week	11	9.16
6	A few times week	06	4.99
7	Every day	09	7.49
	Total	120	100

Observation: 28% of the teachers never had this feeling.19% had it a few times a month, while 17% a few times a year. 8% of the teachers had this feeling every day.

Inference: The majority of the teachers did not suffer from depersonalization. Their profession provided enjoyment and satisfaction. However 9 teachers exhibited a high degree of depersonalization and isolation as they had this feeling every day.

Table no.5.16

Statement: I feel promotion avenues for teachers in this institute are rather bleak.

No.	Factors	Response	%
1	Never	33	27.48
2	A few times a year	24	20.0
3	Once a month or less	26	21.65
4	A few times a month	08	6.66
5	Once a week	10	8.33
6	A few times week	08	6.66
7	Every day	11	9.16
	Total	120	100

Observation: 27% of the teachers never felt that the chances of promotion were bleak, while 22% had this feeling once a month or less. 9% teachers had this feeling every day.

Inference: The majority of the teachers did not suffer from depersonalization. They were positive and had accountability and worked hard to achieve higher post. They perceived growth opportunities in their institution. However 11 teachers reported higher burnout as they had this feeling every day in their work. They perceived boredom in their job

Table no.5.17

Lack of administrative support has crippled my efforts for employing innovations in teaching

Sr no.	Factors	Response	%
1	Never	35	29.15
2	A few times a year	25	20.82
3	Once a month or less	18	15.00
4	A few times a month	11	9.16
5	Once a week	15	12.50
6	A few times week	13	10.82
7	Every day	03	2.50
	Total	120	100

Observation: 29% of the teachers never had this feeling.21% had it a few times a year and 15% once a month or less.3% of the teachers had this feeling every day.

Inference: The majority of the teachers found the structure effective, inspiring and conducive to incorporate new ideas in teaching. However 3 teachers were completely burned out and had this feeling every day.

Table no.5.18

I feel that leadership style in this institution has frustrated me.

Sr no.	Factors	Response	%
1	Never	31	25.82
2	A few times a year	23	19.15
3	Once a month or less	22	18.32
4	A few times a month	19	15.82
5	Once a week	11	9.16
6	A few times week	08	6.66
7	Every day	06	5.00
	Total	120	100

Observation: 26% of the teachers never had this feeling.20% had this feeling a few times a year and 18% once a month or less.5% of the teachers had this feeling every day.

Inference: The majority of the teachers favored the leadership style and found it effective and result oriented. 6 teachers were reported to have higher burnout as they had this feeling every day. They blamed the system.

Table 5.19

Statement: In this institute, I am compelled to do certain tasks which I am not supposed to do

No.	Factors	Response	%
1	Never	25	20.82
2	A few times a year	27	22.5
3	Once a month or less	21	17.5
4	A few times a month	18	15.0
5	Once a week	08	6.66
6	A few times week	12	10.0
7	Every day	09	7.5
	Total	120	100

Observation: 20% of the teachers felt that they were never compelled to perform certain tasks beyond the specific duties. But 23% teachers had this feeling a few times a year.8% teachers had this feeling every day

Inference: The majority of the teachers did suffer from burnout. They might be engaged with other non academic or personal work assigned by the management. They had mixed views on this issue.

Table 5.20
Statement: I do not like to be criticized by others.

No.	Factors	Response	%
1	Never	22	18.32
2	A few times a year	17	14.16
3	Once a month or less	20	16.66
4	A few times a month	18	15.00
5	Once a week	14	11.66
6	A few times week	19	15.82
7	Every day	10	8.33
	Total	120	100

Observation: 18% of the teachers never liked to be criticized by others.16% had this feeling once a month or less.8% of the teachers had this feeling every day.

Inference: The majority of the teachers did suffer from depersonalization and were averse to comments or criticism from others. 10 teachers had high degree of burnout, and they had this feeling every day.

Table 5.21

Statement: I get myself irritated when asked about the progress of my work by any one.

No.	Factors	Response	%
1	Never	24	20.00
2	A few times a year	23	19.09
3	Once a month or less	20	16.66
4	A few times a month	18	15.00
5	Once a week	14	11.66
6	A few times week	08	6.66
7	Every day	13	10.80
	Total	120	100

Observation: 20% of the teachers never felt irritated when inquired about their progress.19% felt irritation a few times a year; while 17% once a month or less.10% of the teachers got irritated every day.

Inference: The majority of the teachers were pleased to show the progress of their work, when demanded. They did not oppose. However 13 teachers exhibited a high degree of burnout as they had this feeling every day.

Table 5.22
Statement: I am often irregular in engaging periods and miss my class.

No.	Factors	Response	%
1	Never	27	22.5
2	A few times a year	23	19.5
3	Once a month or less	17	14.16
4	A few times a month	15	12.5
5	Once a week	20	16.6
6	A few times week	10	8.33
7	Every day	08	6.66
	Total	120	100

Observation: 23% of the teachers appreciated the necessity of regularity in teaching. 19% and 16% of the teachers had the feeling a few times a year and once a week respectively. 6% had this feeling every day.

Inference: The majority of the teachers did not suffer from depersonalization and teachers alienation. They were found to have accountability in their work. However 8 teachers had this feeling everyday and disassociated from the work situation.

Table 5.23

Statement: I feel that as a teacher, I am not progressing well in life.

No.	Factors	Response	%
1	Never	29	24.19
2	A few times a year	26	21.65
3	Once a month or less	22	18.32
4	A few times a month	09	7.49
5	Once a week	14	11.66
6	A few times week	09	7.49
7	Every day	11	9.16
	Total	120	100

Observation: 24% of the teachers never had this feeling; while 21% had this feeling a few times a year and 18% had this view once a month or less. 9% of the teachers had this feeling every day.

Inference: The majority of the teachers did not suffer from depersonalization. They were found to be satisfied with their work. However, 11 teachers exhibited high level of burnout as they had this feeling every day.

Table 5.24
Statement: I have become more callous towards people since I took this job.

No.	Factors	Response	%
1	Never	30	25
2	A few times a year	20	16.66
3	Once a month or less	19	15.82
4	A few times a month	18	15.0
5	Once a week	13	10.82
6	A few times week	11	9.16
7	Every day	09	7.49
	Total	120	100

Observation: 25% of the teachers never had this feeling; 17% of them entertained this view a few times a year and 16% a few times a month. 8% of teachers had this feeling every day.

Inference: The majority of the teachers did not suffer from depersonalization and meaninglessness. They were found to have accountability in their work. 9 teachers exhibited higher level of burnout as they had this feeling every day.

Table 5.25

Statement: I cannot do my work as efficiently as I was a couple of years back.

No.	Factors	Response	%
1	Never	26	21.65
2	A few times a year	19	15.82
3	Once a month or less	20	16.66
4	A few times a month	17	14.16
5	Once a week	16	13.32
6	A few times week	12	10.00
7	Everyday	10	8.33
	Total	120	100

Observation: 22% of the teachers never had this feeling.17% had this feeling a few times a year while 17% had once a month or less. 8% had this feeling every day.

Inference: The majority of the teachers did not suffer from depersonalization, alienation and exhaustion.10 teachers had higher rate of burnout as they had this feeling every day.

Table 5.26
Statement: I don't really care what happens to some students.

No.	Factors	Response	%
1	Never	26	21.65
2	A few times a year	20	16.66
3	Once a month or less	31	25.82
4	A few times a month	17	14.16
5	Once a week	12	10.0
6	A few times week	09	7.50
7	Every day	05	4.16
	Total	120	100

Observation: 22% of the teachers never had this feeling 17% had a few times a year and 26% once a month or less.4% had this feeling every day.

Inference: The majority of the teachers did not suffer from depersonalization and were not callous towards the students or colleagues. They were found to have accountability towards the students. 5 teachers were observed to have callous attitude towards the students as they had this feeling every day.

Table 5.27
Statement: I feel students blame me for some of their problems.

No.	Factors	Response	%
1	Never	26	21.65
2	A few times a year	29	24.15
3	Once a month or less	17	14.16
4	A few times a month	18	15.0
5	Once a week	18	15.0
6	A few times week	08	6.66
7	Every day	04	3.33
	Total	120	100

Observation: 22% of the teachers never had this feeling.24% a few times a year and 15% once a week.3% of the teachers had this feeling every day.

Inference: The majority of the teachers did not suffer from depersonalization and had lower level of burnout.4 teachers had this feeling every day thereby exhibiting a higher level of emotional exhaustion and depersonalization.

Table 5.28

Statement: I get a sense of relief when I think of quitting this job.

No.	Factors	Response	%
1	Never	27	22.50
2	A few times a year	18	15.00
3	Once a month or less	26	21.65
4	A few times a month	18	15.00
5	Once a week	13	10.82
6	A few times week	11	9.16
7	Every day	07	5.83
	Total	120	100

Observation: 23% of the teachers never had this feeling while 22% had it once a month or less. 6% of the teachers had this feeling every day.

Inference: The majority of the teachers did not suffer from the sense of meaninglessness and depersonalization.

7 teachers had this feeling everyday and thus reported to have higher level of burnout.

Table 5.29
Statement: I do not care whether students have understood or not.

No.	Factors	Response	%
1	Never	30	25.00
2	A few times a year	27	22.50
3	Once a month or less	18	15.00
4	A few times a month	23	19.15
5	Once a week	07	5.83
6	A few times week	08	6.66
7	Every day	07	5.83
	Total	120	100

Observation: 25% of the teachers never had this feeling.23% had this feeling a few times a year, and 19% a few times a month.6% had this feeling every day

Inference: The majority of the teachers did not have callous attitude towards the students. They were accountable in their work.7 teachers were very callous and unaccountable in their attitude towards the students, and had higher burnout.

Table 5.30

Statement: I enjoy being alone here as I have done much hard work in the early years of my job.

No.	Factors	Response	%
1	Never	27	22.50
2	A few times a year	22	18.32
3	Once a month or less	20	16.66
4	A few times a month	17	14.16
5	Once a week	13	10.82
6	A few times week	11	9.16
7	Every day	10	8.33
	Total	120	100

Observation: 23% of the teachers never agreed with the statement.18% agreed a few times a year and 17% a few times a month.8% of the teachers had this feeling every day.

Inference: The majority of the teachers did not suffer from the sense of isolation and workers alienation. 10 teachers exhibited a high degree of depersonalization as they had this feeling every day.

Table 5.31
Statement: I feel that I am not wanted by anyone in this institute.

No.	Factors	Response	%
1	Never	28	23.32
2	A few times a year	26	21.65
3	Once a month or less	24	20.00
4	A few times a month	08	6.66
5	Once a week	11	9.16
6	A few times week	17	14.16
7	Every day	06	5.00
	Total	120	100

Observation: 23% of the teachers never had this feeling.22% had a few times a year; while 20% once a month or less.5% of the teachers had this feeling every day.

Inference: The majority of the teachers did not suffer from depersonalization and isolation. They were found to have accountability and were satisfied with their work. 6 teachers reported a high level of depersonalization, as they had this feeling every day.

Table 5.32
Statement: I sincerely check students' assignments and show their shortcomings.

No	Factors	Response	%
1	never	07	5.83
2	A few times a year	10	8.33
3	Once a month or less	13	10.82
4	A few times a month	16	13.32
5	Once a week	26	21.65
6	A few times week	20	16.66
7	Every day	28	23.32
	Total	120	100

Observation: 23% of the teachers felt necessary to check the students assignments everyday.21% checked once a week, while 5% of the teachers never checked at all.

Inference: The majority of the teachers did not suffer from emotional exhaustion or depersonalization. They were found to have accountability in their work and were sincere in their duties towards the students. They had the feeling of personal accomplishment. However 10 teachers were burned out and had poor sense of accomplishment.

Table 5.33

Statement: I do my revision and go well prepared for every class.

No	Factors	Response	%
1	Never	06	4.16
2	A few times a year	09	7.50
3	Once a month or less	10	8.33
4	A few times a month	20	16.66
5	Once a week	25	20.85
6	A few times week	23	19.15
7	Every day	26	21.65
	Total	120	100

Observation: 21% of the teachers had this feeling every day. While 20% of them had this feeling, few times a week and once a week respectively. 4% of the teachers never had this type of feeling.

Inference: The majority of the teachers exhibited a high degree of personal accomplishment. They were found to have accountability in their work. 6 teachers never revised at all.

Table 5.34

Statement: I make myself available to the students to solve their problem

No	Factors	Response	%
1	Never	05	4.16
2	A few times a year	09	7.50
3	Once a month or less	12	10.0
4	A few times a month	20	16.66
5	Once a week	20	16.66
6	A few times week	25	20.82
7	Every day	29	24.15
	Total	120	100

Observation: 24% of the teachers had this feeling every day, followed by 21%, who had the feeling a few times a week.4% teachers never had this feeling.

Inference: The majority of the teachers had positive perception towards the students. They were available to the students unconditionally to solve their difficulties or interact. However 5 teachers avoided the students and remained aloof.

Table 5.35

Statement: I can easily create a relaxed atmosphere with my students.

No	Factors	Response	%
1	Never	07	5.83
2	A few times a year	08	6.66
3	Once a month or less	14	11.66
4	A few times a month	21	17.50
5	Once a week	19	15.82
6	A few times week	24	20.00
7	Every day	27	22.50
	Total	120	100

Observation: 23% of the teachers had this feeling every day; followed by 20% a few times a week.6% of the teachers never had this feeling.

Inference: The majority of the teachers did not suffer from any symptoms of burnout. They were relaxed and peaceful with the students. However 7 teachers lacked this attitude due to stress and burnout.

Table 5.36

Statement: In my work, I deal with emotional problems very calmly.

No	Factors	Response	%
1	Never	06	5.00
2	A few times a year	07	5.83
3	Once a month or less	17	14.16
4	A few times a month	19	15.82
5	Once a week	24	20.00
6	A few times week	21	17.50
7	Every day	26	21.65
	Total	120	100

Observation: 22% of the teachers had this feeling every day followed by 20% who had this feeling once week.5% teachers never had this feeling.

Inference: The majority of the teachers exhibited a good degree of personal accomplishment. They had the requisite patience to handle emotional situations calmly. However 6 teachers exhibited a severe level of emotional exhaustion and reduced personal accomplishment. They never had this feeling.

Table 5.37

Statement: I feel exhilarated after working a closely with my students.

No	Factors	Response	%
1	Never	10	8.33
2	A few times a year	08	6.66
3	Once a month or less	18	15.00
4	A few times a month	23	19.15
5	Once a week	22	18.32
6	A few times week	19	15.80
7	Every day	20	16.66
	Total	120	100

Observation: 19% of the teachers enjoyed working closely with students; a few times a month.18% enjoyed this feeling once a week while 17% had this feeling every day.8% of the teachers never agreed with the statement

Inference: The majority of the teachers was enthusiastic and showed a good sense of personal accomplishment. They were satisfied and enjoyed working closely with students. However 10 teachers remained aloof and exhibited a poor sense of personal accomplishment. They had higher degree of teacher stress

Table 5.38

Statement: I have accomplished many worthwhile things in this job.

No	Factors	Response	%
1	Never	06	5.00
2	A few times a year	09	7.50
3	Once a month or less	13	10.82
4	A few times a month	17	14.16
5	Once a week	23	19.15
6	A few times week	24	20.00
7	Every day	28	23.32
	Total	120	100

Observation: 23% of the teachers appreciated this fact every day followed by 20% who had this feeling a few times a week.5% of the teachers never appreciated this statement.

Inference: The majority of the teachers had a good level of personal accomplishment. They were positive and enthusiastic. About 6 teachers were very negative and stressed as they never had this type of feeling.

Table 5.39

Statement: I feel that I am getting enough freedom for doing my job.

No	Factors	Response	%
1	Never	4	3.32
2	A few times a year	13	10.82
3	Once a month or less	11	9.16
4	A few times a month	15	12.50
5	Once a week	25	20.82
6	A few times week	18	15.00
7	Every day	34	28.32
	Total	120	100

Observation: 28% of the teachers had this feeling every day while 21% had this feeling once a week.3% of the teachers never had this feeling.

Inference: The majority of the teachers had enough freedom in their work and they enjoyed the duties without any pressure. However 4 teachers never agreed with the statement, and reported high degree of burnout

Table 5.40
Statement: I feel very energetic.

No.	Factors	Response	%
1	Never	10	8.33
2	A few times a year	10	8.33
3	Once a month or less	13	10.82
4	A few times a month	19	15.82
5	Once a week	17	14.16
6	A few times week	23	19.15
7	Every day	28	23.32
	Total	120	100

Observation: 23% of the teachers had this feeling every day while 19% had a few times a week. 8% of the teachers never had this feeling.

Inference: The majority of the teachers were very energetic and enthusiastic. Interest in teaching induced inspiration in them. However, 10 teachers were not energetic and exhausted. They lacked interest in the profession.

Table 5.41

Statement: I deal very effectively with the problems of my students

No	Factors	Response	%
1	Never	08	6.66
2	A few times a year	10	8.33
3	Once a month or less	11	9.16
4	A few times a month	18	15.00
5	Once a week	20	16.66
6	A few times week	24	20.00
7	Every day	29	24.15
	Total	120	100

Observation: 24% of the teachers had this feeling every day followed by 20% of teachers who had this feeling a few times a week.6% of the teachers never had this feeling

Inference: The majority of the teachers had a high sense of personal achievement and accomplishment. They effectively worked to solve the problems of students. However 7% teachers showed aloofness towards the students, depicting a lack of personal accomplishment.

Table 5.42
Statement: I feel that teaching gives me great satisfaction.

No.	Factors	Response	%
1	Never	05	4.16
2	A few times a year	10	8.33
3	Once a month or less	14	11.66
4	A few times a month	18	15.00
5	Once a week	21	17.50
6	A few times week	25	20.82
7	Every day	27	22.50
	Total	120	100

Observation: 23% of the teachers had this feeling every day followed by 21% of teachers who enjoyed this feeling a few times a week.4% of them never had this feeling.

Inference: The majority of the teachers had higher level of job satisfaction and did not show any sign of burnout. However 5 teachers totally lacked job satisfaction as they never had this feeling.

Table 5.43

Statement: I feel that teaching allows me to utilize my fullest ability.

No	Factors	Response	%
1	Never	08	6.66
2	A few times a year	07	5.83
3	Once a month or less	12	10.00
4	A few times a month	21	17.50
5	Once a week	18	15.00
6	A few times week	28	23.32
7	Every day	26	21.66
	Total	120	100

Observation: 22% of the teachers had this feeling every day; 23% of them had a few times a week.6% of the teachers never had this feeling.

Inference: The majority of the teachers was very positive and felt that teaching allowed them to use their talents to the fullest.8 teachers did not agree to the statement indicating burnout syndrome in them.

5.5: Analysis of collected information. Job satisfaction Scale:

Table 5.44
Statement: I feel good about my job

No.	Factors	Response	%
1	Strongly agree	30	25.00
2	Fairly agree	56	46.64
3	Neutral/ undecided	20	16.66
4	Fairly disagree and	09	7.50
5	Strongly disagree.	05	4.16
	Total	120	100

Observation: 25% of the teachers strongly agreed while 47% of them fairly agreed to the statement. 4% strongly disagreed.

Interpretation: Majority of teachers were satisfied with their present job.

Table 5.45
Statement: My wages are good

No.	Factors	Response	%
1	Strongly agree	51	42.48
2	Fairly agree	53	44.14
3	Neutral/ undecided	11	9.16
4	Fairly disagree and	02	1.66
5	Strongly disagree.	02	1.66
	Total	120	100

Observation: 42% of the teachers strongly agreed while 44% of them fairly agreed to the statement. 2% strongly disagreed.

Interpretation: Teachers were satisfied with their wages.

Table 5.46
Statement: My teaching work is recreation for me.

No.	Factors	Response	%
1	Strongly agree	42	35.00
2	Fairly agree	51	42.48
3	Neutral/ undecided	18	15.00
4	Fairly disagree and	06	5.00
5	Strongly disagree.	03	2.50
	Total	120	100

Observation: 35% of the teachers strongly agreed while 42% of them fairly agreed to the statement. 2.5% strongly disagreed.

Interpretation: Teachers enjoyed their job and were satisfied.

Table 5.47

Statement: The nature of my work is so interesting that I shall not leave it, if I were to be paid more elsewhere.

No.	Factors	Response	%
1	Strongly agree	47	39.15
2	Fairly agree	53	44.14
3	Neutral/ undecided	15	12.50
4	Fairly disagree and	03	2.50
5	Strongly disagree.	02	1.66
	Total	120	100

Observation: 39% of the teachers strongly agreed while 44% of them fairly agreed to the statement. 2% strongly disagreed.

Interpretation: Teachers had intrinsic satisfaction with their

Table 5.48

Statement: It is due to my job that I have fulfilled or I may fulfill most of my life ambitions

No.	Factors	Response	%
1	Strongly agree	29	24.15
2	Fairly agree	49	40.81
3	Neutral/ undecided	26	21.65
4	Fairly disagree and	11	9.16
5	Strongly disagree.	05	4.16
	Total	120	100

Observation: 24% of the teachers strongly agreed while 41% of them fairly agreed to the statement. 4% strongly disagreed.

Interpretation: Teachers were satisfied and felt that because of their job they have fulfilled most of their life ambitions

Table 5.49
Statement: I think I have fully established in my job.

No.	Factors	Response	%
1	Strongly agree	45	37.48
2	Fairly agree	49	40.81
3	Neutral/ undecided	16	13.32
4	Fairly disagree and	07	5.83
5	Strongly disagree.	03	2.50
	Total	120	100

Observation: 37% of the teachers strongly agreed while 41% of them fairly agreed to the statement. 2.5% strongly disagreed.

Interpretation: Teachers felt that they were secured in their job and were satisfied.

Table 5.50

Statement: I feel uneasy if I have to be away from my work situation for a longer period.

No.	Factors	Response	%
1	Strongly agree	20	16.66
2	Fairly agree	34	28.32
3	Neutral/ undecided	30	25.00
4	Fairly disagree and	22	18.32
5	Strongly disagree.	14	11.66
	Total	120	100

Observation: 17% of the teachers strongly agreed while 28% of them fairly agreed to the statement. 12% strongly disagreed.

Interpretation: Teachers had intrinsic satisfaction with their job

Table 5.51
Statement: The time passes very quickly when I am at work

No.	Factors	Response	%
1	Strongly agree	15	12.50
2	Fairly agree	36	30.00
3	Neutral/ undecided	18	15.00
4	Fairly disagree and	32	26.65
5	Strongly disagree.	19	15.82
	Total	120	100

Observation: 13% of the teachers strongly agreed while 30% of them fairly agreed to the statement. 27% fairly disagreed while 16% strongly disagreed.

Interpretation: On this issue the teachers were observed to be divided. Nearly half the teachers agreed that time passed quickly when on work.

Table 5.52

Statement: I have ample opportunities of promotion where I am working now.

No.	Factors	Response	%
1	Strongly agree	36	30.00
2	Fairly agree	51	42.48
3	Neutral/ undecided	09	7.50
4	Fairly disagree and	20	16.66
5	Strongly disagree.	04	3.35
	Total	120	100

Observation: 30% of the teachers strongly agreed while 40% of them fairly agreed to the statement. 6% strongly disagreed.

Interpretation: Teachers appeared to have satisfaction with their job

Table 5.53
Statement: I feel secure about my job.

No.	Factors	Response	%
1	Strongly agree	74	61.65
2	Fairly agree	34	28.32
3	Neutral/ undecided	05	4.16
4	Fairly disagree and	04	3.32
5	Strongly disagree.	03	2.50
	Total	120	100

Observation: 29% of the teachers strongly agreed while 40% of them fairly agreed to the statement. 6% strongly disagreed.

Interpretation: Teachers had intrinsic satisfaction with their job

Table 5.54

Statement: My job is free from unnecessary interferences.

No.	Factors	Response	%
1	Strongly agree	15	12.50
2	Fairly agree	21	17.50
3	Neutral/ undecided	60	50.00
4	Fairly disagree and	15	12.50
5	Strongly disagree.	09	7.50
	Total	120	100

Observation: 13% of the teachers strongly agreed while 18% of them fairly agreed to the statement. 8% strongly disagreed.50% was undecided.

Interpretation: Teachers had two opinions on this issue.

It appeared that the teachers seemed unsatisfied with their job as half the numbers of teachers were neutral.

Table 5.55

Statement: I enjoy provident and other facilities due to my job.

No.	Factors	Response	%
1	Strongly agree	06	5.00
2	Fairly agree	110	91.63
3	Neutral/ undecided	03	2.50
4	Fairly disagree and	01	0.83
5	Strongly disagree.	00	00
	Total	120	100

Observation: 5% of the teachers strongly agreed while 92% of them fairly agreed to the statement. No teacher strongly disagreed.

Interpretation: Teachers were aware that they had post retirement facilities due to their job and they felt secured.

Table 5.56

Statement: My job provides me best opportunities to use my talents.

No.	Factors	Response	%
1	Strongly agree	45	37.48
2	Fairly agree	49	40.81
3	Neutral/ undecided	16	13.32
4	Fairly disagree and	07	5.83
5	Strongly disagree.	03	2.50
	Total	120	100

Observation: 37% of the teachers strongly agreed while 41% of them fairly agreed to the statement. 3% strongly disagreed.

Interpretation: Teachers found their job challenging and were aware that teaching provided them opportunities to use their skills.

Table 5.57

Statement: I get sufficient reward within the organization whenever I am asked to do extra work

No.	Factors	Response	%
1	Strongly agree	42	35.00
2	Fairly agree	48	39.98
3	Neutral/ undecided	17	14.16
4	Fairly disagree and	09	7.49
5	Strongly disagree.	04	3.33
	Total	120	100

Observation: 35% of the teachers strongly agreed while 40% of them fairly agreed to the statement. 3% strongly disagreed.

Interpretation: Teachers enjoyed doing extra work and were satisfied with their job.

Table 5.58

Statement: There are no frequent variations in my working hours.

No.	Factors	Response	%
1	Strongly agree	45	37.48
2	Fairly agree	49	40.81
3	Neutral/ undecided	16	13.32
4	Fairly disagree and	06	5.00
5	Strongly disagree.	04	3.32
	Total	120	100

Observation: 37% of the teachers strongly agreed while 40% of them fairly agreed to the statement. 3% strongly disagreed.

Interpretation: Teachers were found to be satisfied with their working hours.

Table 5.59

Statement: On the whole, I believe work is good for my physical health.

No.	Factors	Response	%
1	Strongly agree	34	28.32
2	Fairly agree	51	42.48
3	Neutral/ undecided	24	20.00
4	Fairly disagree and	08	6.66
5	Strongly disagree.	03	2.50
	Total	120	100

Observation: 29% of the teachers strongly agreed while 42% of them fairly agreed to the statement. 3% strongly disagreed.

Interpretation: Teachers advocated that the work was safe for health.

Table 5.60
Statement: I believe management is concerned about me.

No.	Factors	Response	%
1	Strongly agree	19	15.82
2	Fairly agree	51	42.48
3	Neutral/ undecided	31	25.82
4	Fairly disagree and	13	10.82
5	Strongly disagree.	06	5.00
	Total	120	100

Observation: 16% of the teachers strongly agreed while 42% of them fairly agreed to the statement. 5% strongly disagreed.

Interpretation: Majority of teachers felt that the management was concerned about them. This enhanced job satisfaction.

Table 5.61
Statement: My job is looked upon very high in the society.

No.	Factors	Response	%
1	Strongly agree	20	16.66
2	Fairly agree	36	29.98
3	Neutral/ undecided	30	24.99
4	Fairly disagree and	22	18.32
5	Strongly disagree.	12	9.99
	Total	120	100

Observation: 16% of the teachers strongly agreed while 30% of them fairly agreed to the statement. 10% strongly disagreed.

Interpretation: Majority of the teachers entertained this view and was satisfied with their job.

Table 5.62
Statement: My job provides me opportunities to help others.

No.	Factors	Response	%
1	Strongly agree	30	24.99
2	Fairly agree	57	47.48
3	Neutral/ undecided	20	16.66
4	Fairly disagree and	10	8.33
5	Strongly disagree.	03	3.00
	Total	120	100

Observation: 25% of the teachers strongly agreed while 47% of them fairly agreed to the statement. 3% strongly disagreed.

Interpretation: This was a social aspect. Teachers enjoyed satisfaction in helping others.

Table 5.63
Statement: I get along with my superiors.

No.	Factors	Response	%
1	Strongly agree	21	17.44
2	Fairly agree	53	44.14
3	Neutral/ undecided	30	24.99
4	Fairly disagree and	11	9.16
5	Strongly disagree.	05	4.16
	Total	120	100

Observation: 17% of the teachers strongly agreed while 44% of them fairly agreed to the statement. 4% strongly disagreed.

Interpretation: Majority of teachers were comfortable to work along with their seniors and superiors.

Table 5.64
Statement: I get proper guidance from my superiors when necessary.

No.	Factors	Response	%
1	Strongly agree	28	23.32
2	Fairly agree	48	39.98
3	Neutral/ undecided	31	25.82
4	Fairly disagree and	09	7.50
5	Strongly disagree.	04	3.33
	Total	120	100

Observation: 23% of the teachers strongly agreed while 40% of them fairly agreed to the statement. 8% strongly disagreed.

Interpretation: Teachers had cordial relationship with their superiors. They got timely help as and when required

Table 5.65

Statement: I feel quite independent so far as my work is concerned.

No.	Factors	Response	%
1	Strongly agree	32	26.65
2	Fairly agree	50	41.65
3	Neutral/ undecided	25	20.82
4	Fairly disagree and	07	5.83
5	Strongly disagree.	06	5.00
	Total	120	100

Observation: 26% of the teachers strongly agreed while 41% of them fairly agreed to the statement. 5% strongly disagreed.

Interpretation: Majority of teachers felt that they had freedom to work and had no interferences or hindrances whatsoever. This gave them job satisfaction.

Table 5.66
Statement: All my talents and skills are used at work.

No.	Factors	Response	%
1	Strongly agree	46	38.31
2	Fairly agree	54	44.98
3	Neutral/ undecided	15	12.49
4	Fairly disagree and	05	4.16
5	Strongly disagree.	00	00
	Total	120	100

Observation: 38% of the teachers strongly agreed while 45% of them fairly agreed to the statement. No one strongly disagreed.

Interpretation: Teachers were satisfied to use all their talents and skills in work.

Table 5.67

Statement: There is something in my job that gives me intrinsic satisfaction

No.	Factors	Response	%		
1	Strongly agree	Strongly agree 29			
2	Fairly agree	48	39.98		
3	Neutral/ undecided	31	25.82		
4	Fairly disagree and	05	4.16		
5	Strongly disagree.	07	5.83		
	Total	120	100		

Observation: 24% of the teachers strongly agreed while 40% of them fairly agreed to the statement. 6% strongly disagreed.

Interpretation: Teachers had intrinsic satisfaction with their job.

5.6 Interpretation of results of Analysis:

The earlier section relates to the responses of the teachers to the questions put in the questionnaires. While making the interpretations and presenting the data, a

simple practice was followed by the researcher. First of all need of question was stated, followed by table, observations and interpretation. Simultaneously simple statistical techniques such as average mode percentage and ranking have been used depending on the need and nature of the table.

Referring the tables **5.4 to 5.43** containing 40 questions on burnout inventory, it was seen that the majority of teachers were aware of the perceptions regarding the organization, with whom they worked, and the work itself. Most of the teachers were positive and satisfied with the present job and had appreciable level of confidence, enthusiasm and very positive attitude towards teaching and students. A very few about 3% of teachers exhibited a high level of burnout.

This supports the secondary hypothesis that the teachers under study are aware of the lack of feeling of burnout in them.

Referring the tables **5.44** to **5.67** containing 24 statements to access the job satisfaction of teacher, it was observed that the majority of the teachers under study were conscious about rights and position in the society and also about security of job, wages proper reward for the job and getting appreciated and motivated by their superiors. The management was also found to be psychologically involved in the overall development of teachers. Merely 4% of the teachers were found to be dissatisfied with their job.

This supports the secondary hypothesis that teachers under study are aware of the importance of being satisfied with their job.

5.7 Computation of Product Moment Correlations:

Correlation is a statistical technique which is use to measure the relation between two variables. The product moment correlation has been computed between the following variables, using Karl Pearson's formula.

- 1. Burnout and job satisfaction.
- 2. Burnout and Age
- 3. Burnout and Teaching Experience

Table 5.68

Product moment of Correlations

No	Variables.	Coefficient of correlation		
		Calculated Table		
1	Burnout and Job satisfaction	(-)0.569 0.196		
2	Burnout and Age	(-)0.091 0.196		
3	Burnout and Teaching	(-)0.089 0.196		
	Experience.			

5.8 Interpretation and Discussion of Results of Correlations:

(1) It was observed that the co-efficient of correlation between burnout and job satisfaction was found to be negatively significant (-0.569) at 0.01 level.

The calculated value of r = (-)~0.569, with df = 118. The critical values given in the table for "r" are 0.196 and 0.256 at 0.05 and 0.01 levels respectively. Since the

obtained value of the coefficient exceeds the critical value necessary for the rejection of null hypothesis at df=118, the null hypothesis that "There is no significant relationship between burnout and job satisfaction in teachers under study" is rejected.

It is thus concluded that there is significant relationship between burnout and job satisfaction in the teachers under study and as the feeling of burnout increases, job satisfaction decreases and vice versa.

(2) For burnout and Age, the value of correlation (r) = (0.091) showed a negative but insignificant relationship between burnout and age.

The calculated value of r = (-) 0.091, with df = 118. The critical values given in the table for "r" are 0.196 and 0.256 at 0.05 and 0.01 levels respectively. Since the obtained value of the coefficient is less than the critical value necessary for the rejection of null hypothesis at df=118, the null hypothesis that "There is no significant

relationship between burnout and age in teachers under study" is accepted.

It is thus concluded that there is no significant relationship between burnout and age of teachers under study. The difference found in the two groups was merely due to chance factors.

(3) The value of correlation (-0.089) shows a negative but insignificant relationship between burnout and teaching experience.

The calculated value of r = (-) 0.089, with df = 118. The critical values given in the table for "r" are 0.196 and 0.256 at 0.05 and 0.01 levels respectively. Since the obtained value of the coefficient is less than the critical value necessary for the rejection of null hypothesis at df=118, the null hypothesis that "There is no significant relationship between burnout and experience in teachers under study" is accepted.

It is thus concluded that there is no significant relationship between burnout and experience of

teachers under study. The difference found in the two groups was merely due to chance factors.

5.9 Testing Statistical Significance (t- tests)

To determine the significant inference and to test hypotheses, **T-tests** were computed to find the effect of age, gender, and teaching experience on burnout of teachers. The t-value was found out by using the formula given by Fisher.

(1) Burnout and Age of Teachers:

Table 5.69 'T'-ratios of means of burnout scores

Group	N	M	Calculated	Critical	Remarks	
			value	Value		
AGE						
1	52	58.38		1.98 at 0.05		
				level of		
				significance		
2	38	56.00	(+) 1.30	2.61 at 0.01	Insignificant	
				level of		
				significance		
2	38	56.00		2.00 at 0.05		
				level of		
				significance	Insignificant	
3	30	53.29	(+) 1.28	2.66 at 0.01		
				level of		
				significance		
1	52	58.38		1.98 at 0.05		
				level of		
			(+) 1.89	significance	Insignificant	
3	30	53.29	-	2.61 at 0.01		
				level of		
				significance		
Group 1: Up to 30 years. Group 2: 31 to 45 years Group 3: Above 45 years.						

(2): Burnout and Experience of Teachers:

Table 5.70 'T'-ratios of means of burnout scores

Group	N	M	Calculated	Critical	Remarks
			value	Value	
TEACHING EXPERIENCE					
A	56	54.83		1.98 at 0.05	
				level of	
				significance	
В	42	51.35	(+) 1.89	2.61 at 0.01	Insignificant
				level of	
				significance	
В	42	51.35		2.00 at 0.05	
				level of	
				significance	Insignificant
С	22	46.52	(+) 1.64	2.66 at 0.01	
				level of	
				significance	
A	56	54.83		1.98 at 0.05	
				level of	
			(+) 1.91	significance	Insignificant
С	22	46.82		2.61 at 0.01	
				level of	
				significance	
Group A: Up to 5 years Group B: 6 to 15 years Group C: More than 15 years					

(3): Burnout and Gender of Teachers:

Table 5.71
'T'-ratios of means of burnout scores

Group	N	M	Calculate	Critical	Remarks
			d value	Value	
	GENDER				
Male	98	56.50		1.98 at 0.05	
				level of	
				significance	
Female	22	52.45	(+) 1.86	2.61 at 0.01	Insignificant
				level of	Insignificant
				significance	

5.10 Interpretation of Results of t-test:

(1) Burnout and Age:

Observation: The t-ratio for burnout of teachers in different age groups was found to be insignificant.

Inference:

Group 1 and group 2:

The calculated value of t = (+) 1.30, with df = 88. The critical values given in the table for "t" are 1.98 and 2.61 at 0.05 and 0.01 levels respectively. The obtained value of the coefficient is less than the critical value necessary for the rejection of null hypothesis at df=88.

Group 2 and group 3:

The calculated value of t = (+) 1.28, with df = 66. The critical values given in the table for "t" are 2.00 and 2.66 at 0.05 and 0.01 levels respectively. The obtained value of the coefficient is less than the critical value necessary for the rejection of null hypothesis at df=66

Group 1 and group 3:

The calculated value of t = (+) 1.89, with df = 78. The critical values given in the table for "t" are 1.98 and 2.61 at 0.05 and 0.01 levels respectively. The obtained value of the coefficient is less than the critical value necessary for the rejection of null hypothesis at df=78.

In all the above cases, the calculated value of "t" does not exceed the critical value necessary for rejection of the null hypothesis. Hence the null hypothesis that "There is no significant relationship between burnout and age of teachers under study" is accepted.

It is thus concluded that there is no significant relationship between burnout and age of teachers under study. The difference found in the two groups was merely due to chance factors.

(2) Burnout and Experience:

Observation: The t-ratios for burnout of teachers with different experience were found to be insignificant.

Inference:

Group A and group B:

The calculated value of t = (+) 1.89, with df = 96. The critical values given in the table for "t" are 1.98 and 2.61 at 0.05 and 0.01 levels respectively. The obtained value of the coefficient is less than the critical

value necessary for the rejection of null hypothesis at df=96.

Group B and group C

The calculated value of t = (+) 1.64, with df = 62. The critical values given in the table for "t" are 2.00 and 2.66 at 0.05 and 0.01 levels respectively. The obtained value of the coefficient is less than the critical value necessary for the rejection of null hypothesis at df=62.

Group A and group C

The calculated value of t = (+) 1.91, with df = 76. The critical values given in the table for "t" are 1.98 and 2.61 at 0.05 and 0.01 levels respectively. The obtained value of the coefficient is less than the critical value necessary for the rejection of null hypothesis at df=76.

In all the above cases, the calculated value of "t" does not exceed the critical value necessary for rejection of the null hypothesis. Hence the null hypothesis that

"There is no significant relationship between burnout and experience of teachers under study" is accepted.

It is thus concluded that there is no significant relationship between burnout and experience of teachers under study. The difference found in the two groups was merely due to chance factors.

(3) Burnout and Gender:

Observation: The t ratios for burnout of male and female were found to be insignificant.

Inference:

For male and female teachers, the calculated value of t = (+) 1.86, with df = 118. The critical values given in the table for "t" are 1.98 and 2.61 at 0.05 and 0.01 levels respectively. The obtained value of the coefficient is less than the critical value necessary for the rejection of null hypothesis at df=118.Hence the null hypothesis that "There is no significant relationship between burnout and gender of teachers under study" is accepted.

It is thus concluded that there is no significant

relationship between burnout and gender of teachers

under study. Both male and female teachers are

equally burnout. The difference found in the two

groups was merely due to chance factors.

5.11 Summary

The following is the brief summary of the observations

and findings of the study.

Objective No.1: "To study the relationship between

burnout and job satisfaction."

Main Hypothesis framed:

HO1: There is no significant relationship between

burnout and job satisfaction.

H1: There is significant relationship between burnout

and job satisfaction.

Observation: Coefficient of correlation negatively

significant at 0.01 levels.

Conclusion: H01 is rejected and HI is accepted.

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Objectives No.2: To study the relationship between burnout and age in teachers under study.

Main Hypothesis framed:

HO2: There is no significant relationship between burnout and age in teachers under study.

H2: There is significant relationship between burnout and age in teachers.

Observations: The coefficient of correlation is positive and not significant

Conclusion: H02 is accepted and H2 is rejected

Objectives No.3: To study the relationship between burnout and gender in teachers under study.

Main Hypothesis framed:

HO3: There is no significant relationship between burnout and gender of teachers under study.

H3: There is significant relationship between burnout and gender of teachers.

Observations: The coefficient of correlation is positive and not significant

Conclusion: H03 is accepted and H3 is rejected

Objectives No.4: To study the relationship between burnout and teaching experience in teachers under study.

Main Hypothesis framed:

HO4: There is no significant relationship between burnout and teaching experience in teachers under study.

H4: There is significant relationship between burnout and teaching experience.

Observations: The coefficient of correlation is positive and not significant

Conclusion: H04 is accepted and H4 is rejected

Objectives No. 5: To study the perceptions and awareness about burnout in teachers under study.

Supporting Hypothesis framed:

H05: Teachers under study are not aware of the lack of feeling of burnout in them.

H5: Teachers under study are aware of the lack of feeling of burnout in them.

Observations: Majority of the teachers were found to be stress free about their profession.

Conclusion: H05 is rejected and H5 is accepted

Objectives No.6: To study the perceptions and awareness about job satisfaction in teachers under study.

Supporting Hypothesis framed:

H06: Teachers under study are not aware of the importance of being satisfied with their job

H6: Teachers under study are aware of the importance of being satisfied with their job.

Observations: Majority of teachers were found to be satisfied with their job.

Conclusion: H06 is rejected and H5 is accepted

The study undertaken has resulted in interesting results as discussed above. But it is to be appreciated that the research findings depend upon multiple of factors, which introduce some elements of error in results. The researcher has used the established formulae in the descriptive and inferential statistics for the study.

He has not used any statistical software for calculation.

There is a constant margin of error and results are approximate.

However the findings can never be deemed to be absolute truth. They are only satisfactory understanding of the phenomena. The researcher claims that in the given circumstances at a particular instant of time, with given data and tools employed, the results have been obtained and they are subject to change and modification in future.

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CHAPTER VI SUMMARY, CONCLUSION AND RECOMMENDATIONS

- 6.1 Introduction
- 6.2 Statement of the problem
- 6.3 Objectives
- 6.4 Hypotheses
- 6.5 Research design
- 6.6 Sample
- 6.7 Tools used
- 6.8 Data analysis
- 6.9 Results and findings
- 6.10 Suggestions and recommendations
- 6.11 Suggestions for further research
- 6.12 Implications of the study
- 6.13 Summary
- 6.14 References

6.1 Introduction:

Due to large number of factors, the teacher in the existing scenario is stressed and burnout. Such teachers are anxious, depressed, cynical, emotionally and physically depleted. Stress and burnout have affected and would continue to affect the lives of teachers and their families and society in particular.

Of particular, concern is the impact of teacher stress and burnout on the teaching process itself especially in the engineering colleges with the preponderance of disadvantaged students who can ill – afford deterioration in teacher's motivation and commitment.

The professional interest made him select the problem of teacher burnout and to know more about the same. The data emerged from the opinion survey have been analyzed and discussed in the respective chapters.

6.2 Statement of the problem:

"A Study of burnout syndrome in teachers with reference to job satisfaction, age, gender and experience"

6.3: Objectives of the study:

Main objectives:

- 1. To study the relationship between burnout and job satisfaction in teachers under study.
- 2. To study the relationship between burnout and age in teachers under study.
- 3. To study the relationship between burnout and gender in teachers under study.
- 4. To study the relationship between burnout and teaching experience in teachers under study.

Supporting objectives:

5. To study the perceptions and awareness about burnout in teachers under study.

6. To study the perceptions and awareness about job satisfaction in teachers under study.

6.4 Statement of the hypotheses:

(A) Main hypotheses:

On the basis of surveying the research literature the following **Null hypotheses** were formulated:

- **Ho 1**: There is no significant relationship between burnout and job satisfaction in teachers under study.
- **Ho 2**: There is no significant relationship between burnout and age in teachers under study.
- **Ho 3**: There is no significant relationship between burnout and gender of teachers under study.
- Ho 4: There is no significant relationship between burnout and experience in teachers under study.

(B) Supporting hypotheses:

The supporting hypotheses are those which the researcher would test on the basis of observations and findings derived from the collected information at the particular instant of time. They are:

H1: Teachers under study are aware of the lack of feeling of burnout in them.

H2: Teachers under study are aware of the importance of being satisfied with their job.

6.5 Research design and methodology:

In the study undertaken, it was required to find out the relationship of teacher burnout with job satisfaction, age, gender and experience. Also the perceptions and awareness in teachers regarding burnout and job satisfaction were to be investigated. A descriptive and co-relational method of research was used in conducting the study.

6.6 Population and sample of the study:

Teachers from all the six unaided engineering colleges affiliated to north Maharashtra University, Jalgaon and four unaided polytechnics offering diploma courses in engineering and affiliated to MSBTE, Mumbai for session 2006-07 constituted the population of the

study. At the time of administration of tools there were **540** teachers. This constituted the population.

The samples of 120 teachers were selected from the population for the study. Thus the size of the sample was restricted to 22.22 % Of the population.

6.7 Tools used:

The following tools were employed by the researcher for his study.

- (1) Burnout inventory prepared by the researcher on the lines of Maslach Burnout Inventory.
- (2) Job satisfaction scale prepared by the researcher on the lines of Scott McDonald Generic Job Satisfaction Scale.

The burnout Inventory and the Job satisfaction scale were used to measure burnout and job satisfaction of the teachers respectively

6.8 Data analysis:

The descriptive statistics - mean median, mode, standard deviation, skew ness and kurtosis were computed to study the nature of the data.

The product moment of correlation and t-tests were used to assess the relationship between burnout and other variables; and to test the hypotheses.

For analysis of information collected, simple statistical techniques such as average, mode percentage and ranking have been used. The tables have been followed by observation and inferences.

6.9 Results and findings:

1 Burnout had negative and significant relationship with job satisfaction.

- 2. There was no significant relationship between burnout and teaching experiences.
- **3.** There was no significant relationship between burnout and age.

- **4.** There was no significant relationship between burnout of male and female teachers.
- 5. The teachers under study were aware of the lack of feeling of burnout in them.
- 6. The teachers under study were aware of the importance of being satisfied with their job.

6.10 Suggestions and recommendation:

In order to increase the job satisfaction of younger and newly appointed teachers, the job of teaching should be made more attractive and, proper facilities conducive for teaching should be provided.

They should also be assured of timely promotional opportunities and greater degree of freedom in decision making. If teachers are satisfied with their job, their chances of being burnout also will be very less.

Principal as head of institution has to initiate action and lead the teachers towards achievement of educational goals. At the same time, the principal has to infuse trust among the teachers and develop a warm and

friendly relationship with them, which can lead to high job satisfaction among teachers.

The administrators of technical education should provide management training programs to the principals to develop in them the qualities of leadership.

Teachers should not be burdened with routine duties that may interfere with normal working and also reduce paper works. For increasing job satisfaction and reducing 'burnout', the principal should encourage and promote social activities among teachers.

The institutions should have social clubs with facilities for indoor and outdoor games for teachers and their families. This will result in higher morale and intimate relationships leading to higher job satisfaction and low burnout.

The head and the faculty should be genuine in their behavior. The free, fair and open climate can certainly result in higher educational achievements and higher job satisfaction and low burnout among teachers. The Management should set up guidance and counseling centers in unaided engineering colleges to deal with the teachers and their emotional problems.

Extension lectures by prominent educationists should be periodically arranged at district level. Inservice courses should be organized during holidays and vacation. The courses should also be held on rotational basis i.e. from one district to another. Such vocational courses can act as incentives to teachers for, they involve social togetherness, promote participative spirit and cooperation among teachers.

There should be an occasional exchange programs for teachers. This will ensure uniform standard of teaching all over the state.

Appreciation and recognition of teacher's capabilities arising out of the teacher's performance in relation to his work should be ensured.

State awards should be instituted for teachers whose students excel in their respective subjects in the

State Board Examinations. Such awards can boost the morale of teachers thereby making other teachers more motivated and geared towards their better performance.

The Management should provide staff development incentives for professionally trained teachers, and motivate them to enhance their education by giving paid study leaves.

Professionally trained teachers who improve their educational qualification, should be promoted to the next grade or 2/3 increment should be given to them.

The Government should introduce mandatory salary schedules which would provide teachers incentives to remain in the profession and motivation for the improvement of service. The retirement age of teachers should increase for 58 years to 68 years.

Education administrators should go to the colleges of their region to make personal contact with the teachers, to help them, encourage and guide them, to find out teachers difficulties and find solutions to them.

A teacher professional magazine should be published. This will help teachers to learn from each other. In addition, there should be a parent-teacher association in every institution to look in to various problems bothering the teachers regarding students.

The Government should discourage public criticism of teachers in order to uplift the morale of the teachers. The professional ethics of the teachers should be periodically revised to incorporate the modern trends in them. The teacher should not feel that the teaching profession is a stigma in their way of life.

To fill up the higher posts, first preference should be given to teachers who are already in service

There should a special post of "Teachers Counselor" in every institution that can investigate and provide specific information regarding the reasons of teachers stress, absenteeism and withdrawal from work.

6.11 Suggestion for further research:

There are many possibilities for other research projects stemming from the topic of burnout:

1The most obvious one would be on the best methods of prevention and or strategies for curing teacher burnout.

- 2 The study could be framed to just probe into what the major contributors to teacher burnout among engineering teachers are.
- 3 Comparative studies of the engineering teachers and their contemporaries in the industry in terms of burnout, professional satisfaction, and other factors could be studied in depth.
- 4 A comparative studies could be made on burnout syndrome in engineering teachers in India and one of the developed countries like China and Japan.
- 5 Studies on burnout should be carried out involving more number of personal and organizational variables.

6.12 Implications of the study:

The project began as an analysis of teacher burnout in the unaided engineering institutions of Jalgaon district.

The researchers have come to the realization that teachers under study were burnout to some extent regardless of experience, age and gender. It refuted the belief that all the teachers were burnout and dissatisfied, and that burnout varies from teacher to teacher with respect to age, gender and teaching experience.

The remaining implication of this study was that the teachers surely needed help in dealing with the syndrome of burnout. There is a need of policies and schemes to be adopted in the future to motivate the teachers by making efforts to minimize the conditions responsible for burnout effect.

It is only through an organized and collective effort on the part of such agencies; the engineering teachers can be professionally satisfied and can remain up to date in knowledge and abreast of the latest developments in science and technology.

The professionally competent and motivated teachers can only inspire their student to join teaching as one of the most challenging and exciting careers. In brief, while the technical institutions have to initiate suitable measures with due involvement of students and teachers by creating conducive environment, the Government and the policy makers have to take appropriate steps in providing full autonomy and encouragement to the technical institutions for implementing the national policies and programs and become more and were self reliant.

Further the Society needs to understand that the pressures and challenges that surround the educators. It also needs to replace the unrealistic expectations it places upon teachers with encouragement and a helping hand. Parker Palmer (1999) refers to this by stating,

"Teaching and learning are critical to our individual

and collective survival and to the quality of our lives".

6.13 Summary:

The research findings depend upon multiple of factors,

which introduce some elements of error in results.

However the findings can never be deemed to be absolute

truth. They are only satisfactory understanding of the

phenomena. The researcher claims that in the given

circumstances at a particular instant of time, with given

data and tools employed, the results have been obtained

and they are subject to change and modification in

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APPENDICES

APPENDIX A:

Burnout Inventory

Name of the Institution:	
Name of teacher (Optional):	
Designation:	Age years
Experience: years.	Gender: M/F

INSTRUCTIONS

On the following pages, there are 40 statements of job related feelings. Please read carefully and decide if you ever feel this way about your job.

Symbolic	Frequency	Score
letter		
A	Never	0
В	A few times a year.	1
С	Once a month or less	2
D	few times a month	3
Е	Once a week	4
F	few times a week	5
G	Every day.	6

Refer the above scale and decide which option corresponds to your level of agreement with the statement. For each statement please circle the letter to indicate your degree of agreement.

No.	STATEMENTS	OPINION						
1	I feel emotionally drained due to	A B C D E F					G	
	long years in teaching.							
2	Working with students for the	Α	В	С	D	E	F	G
	whole day is a strain for me.							
3	The mere thought of going to the	Α	В	С	D	Ε	F	G
	college makes me sick.							
4	I feel I am working too hard on	Α	В	С	D	Е	F	G
	my job.							
5	I feel burned out from my work.	Α	В	С	D	Е	F	G
6	I feel used up at the end of the	Α	В	С	D	E	F	G
	day.							
7	Working with students put too	Α	В	С	D	E	F	G
	much stress on me.							
8	I feel fatigued when I get up in	Α	В	С	D	E	F	G
	the morning and have to face							
	another day on the job.							
9	I feel frustrated by my job.	Α	В	С	D	Е	F	G
10	Shouting in the class from	Α	В	С	D	Ε	F	G
	morning onward spoils my							
	health.							
11	I feel irritated when students	Α	В	С	D	Е	F	G
	come to discuss their problems							
	with me.							

12	I am often irregular in engaging	Α	В	С	D	Ε	F	G
	periods and miss my class.							
13	No one gets appreciation for the	Α	В	С	D	Е	F	G
	work one does here in this							
	institute.							
14	I feel promotion avenues for	Α	В	С	D	Ε	F	G
	teachers in this institute are							
	rather bleak.							
15	Lack of administrative support	Α	В	С	D	E	F	G
	has crippled my efforts for							
	employing innovations in							
	teaching.							
16	I feel that leadership style in this	Α	В	С	D	E	F	G
	institution has frustrated me.							_
17	In this institute I am compelled	Α	В	С	D	Ε	F	G
	to do certain tasks which I am							
4.0	not supposed to do.					_	_	
18	I do not like to be criticized by	A	В	C	D	E	F	G
10	others.	_						
19	I get myself irritated when asked	A	В	C	D	E	F	G
	about the progress of my work by							
20	any one.	_					_	
20	I feel as a teacher I am not	A	R	C	ט	E	F	G
	progressing well in life.							

21	I feel that I am not wanted by	Α	В	С	D	E	F	G
	anyone in this institute.							
22	I enjoy being alone here as I have	Α	В	С	D	Ε	F	G
	done much hard work in the early							
	years of my job.							
23	I have become more callous	Α	В	С	D	E	F	G
	towards people since I took this							
	job.							
24	I don't really care what happens	Α	В	С	D	E	F	G
	to some students I encounter in							
	college.							
25	I feel students blame me for some	Α	В	С	D	Е	F	G
	of their problems.							
26	I do not care whether students	Α	В	С	D	Е	F	G
	have understood or not.							
27	I get a sense of relief when I	Α	В	С	D	Е	F	G
	think of leaving this job.							
28	I cannot do my work as	Α	В	С	D	Е	F	G
	efficiently as I was a couple of							
	years back.							
29	I sincerely check students'	Α	В	С	D	Е	F	G
	assignments and show their							
	shortcomings.							
30	I do my revision and go well	Α	В	С	D	Е	F	G
	prepared for every class.							

31	I make myself available to the students to solve their problem.	Α	В	С	D	E	F	G
32	I can easily create a relaxed atmosphere with my students.	Α	В	С	D	E	F	G
33	In my work I deal with emotional problems very calmly.	А	В	С	D	E	F	G
34	I feel exhilarated after working closely with my students.	Α	В	С	D	E	F	G
35	I have accomplished many worthwhile things in this job.	Α	В	С	D	E	F	G
36	I feel that teaching allows me to utilize my fullest ability for innovations.	A	В	С	D	E	F	G
37	I feel very energetic.	Α	В	С	D	Е	F	G
38	I deal very effectively with problems of my students.	Α	В	С	D	E	F	G
39	I feel that I am getting enough freedom to do my work	Α	В	С	D	E	F	G
40	I feel I am highly satisfied with my job	A	В	С	D	E	F	G

Total Burnout score:

APPENDIX B JOB SATISFACTION SCALE

Name of the Institution:	
Name of teacher (Optional):	
Designation:	Age:
Experience:	Gender:

INSTRUCTIONS

In this scale there are 24 statements to access your Job Satisfaction. Statements have been given on the left hand side and symbolic letters ABCDE are written against each statement: For each statement please circle the letter to indicate your degree of agreement.

Symbolic	Statement	Score
letter		
A	Strongly agree.	5
В	Fairly agree.	4
С	Neutral / undecided.	3
D	Fairly disagree.	2
Е	Strongly disagree	1

Sr no.	STATEMENTS	OPINION				
1	I feel good about my job	A	В	С	D	Е
2	My wages are good	A	В	С	D	Е
3	My teaching work is recreation	A	В	С	D	Е
	for me					
4	The nature of my work is so	A	В	С	D	Е
	interesting that I shall not leave					
	it, even if I were to be paid more					
	elsewhere.					
5	It is due to my job that I have	A	В	С	D	Е
	fulfilled or I may fulfill most of					
	my life ambitions					
6	I think I have fully established in	A	В	С	D	Е
	my job.					
7	I feel uneasy if I have to be away	A	В	С	D	Е
	from my job for a longer period.					
8	The time passes very quickly	A	В	С	D	Е
	when I am at work.					
9	I have ample opportunities of	A	В	С	D	Е
	promotion where I am working					
	now.					
10	I feel secure about my job.	A	В	С	D	Е
11	My job is free from unnecessary	A	В	С	D	Е
	interferences.					

12	I enjoy provident and other	A	В	С	D	Е
	facilities due to my job.					
13	My job provides me best	A	В	С	D	Е
	opportunities to use my talents.					
14	I get sufficient reward within the	A	В	С	D	Е
	organization whenever I am asked					
	to do extra work					
15	There are no frequent variations	A	В	С	D	Е
	in my working hours.					
16	On the whole, I believe work is	A	В	С	D	Е
	good for my physical health.					
17	I believe management is	A	В	С	D	Е
	concerned about me.					
18	My job is looked upon very high	A	В	С	D	Е
	in the society.					
19	My job provides me opportunities	A	В	С	D	Е
	to help others.					
20	Communication between me and	A	В	С	D	Е
	my superiors is good.					
21	I get proper guidance from my	A	В	С	D	Е
	superiors when necessary.					
22	I feel quite independent so far as	A	В	С	D	Е
	my work is concerned.					
23	All my talents and skills are used	A	В	С	D	Е
	at work.					
24	There is something in my job that	A	В	С	D	Е
	gives me intrinsic satisfaction.					

Total Job Satisfaction Score:

Appendix C
Critical Values of Students Distribution (t)

Degrees of freedom		test level of		test level of
(df)		icance		icance
1	0.5	0.1	0.5	0.1
1	12.076	63.557	6.314	31.821
2	4.303	9.9255	2.920	6.965
3	3.182	5.841	2.353	4.541
4	2.776	4.604	2.132	3.747
5	2.571	4.032	2.015	3.365
6	2.447	3.707	1.943	3.143
7	2.365	3.499	1.895	2.998
8	2.306	3.355	1.860	2.896
9	2.262	3.250	1.833	2.821
10	2.228	3.169	1.812	2.764
11	2.201	3.106	1.796	2.718
12	2.179	3.055	1.782	2.681
13	2.160	3.012	1.771	2.650
14	2.145	2.977	1.761	2.624
15	2.131	2.947 2.921	1.753	2.602
16	2.120		1.746	2.583
17	2.110	2.898	1.740	2.567
18	2.101	2.878	1.734	2.552
19	2.093	2.861	1.729	2.539
20	2.086	2.845	1.725	2.528
21	2.080	2.831	1.721	2.518
22	2.074	2.819	1.717	2.508
23	2.069	2.807	1.714	2.500
24	2.064	2.797	1.711	2.492
25	2.060	2.787	1.708	2.485
26	2.056	2.779	1.706	2.479
27	2.052	2.771	1.703	2.473
28	2.048	2.763	1.701	2.467
29	2.045	2.756	1.699	2.462
30	2.042	2.750	1.697	2.457
40	2.021	2.704	1.684	2.423
60	2.000	2.660	1.671	2.309
120	1.980	2.617	1.658	2.358
Infinity	1.960	2.576	1.645	2.326

Appendix D Critical Values for Pearson's Product Moment Correlation (r)

n	a=0.1	a=0.05	a-0.02	a=0.01	df
3	.988	.997	.9995	.9999	1
4	.900	.950	.980	.990	2
5	.805	.878	.934	.959	3
6	.729	.811	.882	.917	4
7	.669	.754	.833	.874	5
8	.622	.707	.789	.834	6
9	.582	.666	.750	.798	7
10	.549	.632	.716	.765	8
11	.521	.602	.685	.735	9
12	.497	.576	.658	.708	10
13	.476	.553	.634	.684	11
14	.458	.532	.612	.661	12
15	.441	.514	.592	.641	13
16	.426	.497	.574	.623	14
17	.412	.482	.558	.606	15
18	.400	.468	.542	.590	16
19	.389	.456	.528	.575	17
20	.378	.444	.516	.561	18
21	.369	.433	.503	.549	19
22	.360	.423	.492	.537	20
23	.352	.413	.482	.526	21
24	.344	.404	.472	.515	22
25	.337	.396	.462	.505	23
26	.330	.388	.453	.496	24
27	.323	.381	.445	.487	25
28	.317	.374	.437	.479	26
29	.311	.367	.430	.471	27
30	.306	.361	.423	.463	28
35	.282	.333	.391	.428	33
40	.264	.312	.366	.402	38
50	.235	.276	.328	.361	48
60	.214	.254	.300	.330	58
70	.198	.235	.277	.305	68
80	.185	.220	.260	.286	78
90	.174	.208	.245	.270	88
100	.165	.196	.232	.256	98
200	.117	.139	.164	.182	198
500	.074	.088	.104	.115	498
1000	.052	.062	.074	.081	998
10000	.0164	.0196	.0233	.0258	9.998

This table is abridged from Table 13 in Biometrika tables for statisticians, vol. I and II. New York: 1958. Edited by Pearson and H.O.Hartley

APPENDIX E Data Sheet for burnout and variables

Υ	Х	Υ	Χ	Υ	Χ	Υ
68	98	F	98	2	98	27
90	92	М	92	2	92	26
67	89	F	89	2	89	26
86	90	М	90	1	90	24
98	93	М	93	1	93	25
49	124	F	124	3	124	26
74	102	М	102	4	102	29
71	84	М	84	2	84	27
87	79	М	79	2	79	26
62	83	F	83	3	83	28
93	51	М	51	3	51	27
80	58	М	58	4	58	29
78	39	М	39	5	39	30
84	52	F	52	4	52	30
84	48	М	48	3	48	26
95	17	М	17	3	17	26
85	57	F	57	2	57	26
69	67	М	67	4	67	28
94	35	F	35	4	35	28
77	48	М	48	4	48	29
53	64	М	64	5	64	27
98	51	F	51	5	51	26
83	69	М	69	5	69	29
91	72	М	72	1	72	24
86	25	М	25	2	25	25
88	38	М	38	3	38	26
91	72	F	72	3	72	26
83	69	М	69	4	69	27
78	44	М	44	4	44	28
78	76	М	76	4	76	27
78	39	M	39	4	39	26
84	52	F	52	4	52	26
84	48	M	48	5	48	29
85	17	М	17	5	17	28
88	57	M	57	5	57	30
69	47	M	47	4	47	30
94	35	M	35	5	35	30
77	48	M	48	4	48	29
53	64	F	64	3	64	27
94	51	M	51	3	51	25
83	69	M	69	5	69	27
71	72	F	72	4	72	26
80	25	М	25	5	25	28
88	38	М	38	4	38	27

78	55	F	55	4	55	27
84	39	М	39	4	39	28
80	44	F	44	5	44	29
86	76	М	76	4	76	28
59	77	F	77	4	77	27
78	42	М	42	5	42	30
82	40	М	40	5	40	28
90	42	М	42	5	42	29
54	94	М	94	5	94	31
81	79	М	79	5	79	37
82	64	М	64	5	64	31
70	51	F	51	5	51	32
59	88	М	88	6	88	33
77	41	М	41	8	41	35
74	98	М	98	13	98	40
86	43	М	43	11	43	39
74	58	М	58	10	58	37
71	63	М	63	9	63	35
65	68	М	68	11	68	38
83	50	F	50	7	50	33
70	39	М	39	6	39	31
56	60	М	60	9	60	34
86	21	М	21	8	21	36
100	18	М	18	13	18	42
97	52	М	52	13	52	42
94	54	М	54	12	54	43
85	48	М	48	11	48	45
96	33	F	33	8	33	34
88	48	М	48	10	48	36
97	73	М	73	14	73	40
88	40	М	40	15	40	41
81	23	М	23	14	23	38
62	53	М	53	15	53	44
96	32	М	32	15	32	43
83	20	М	20	13	20	39
97	33	F	33	7	33	32
56	37	М	37	8	37	35
74	78	М	78	9	78	37
70	48	М	48	8	48	33
87	107	F	107	7	107	31
82	40	М	40	13	40	45
94	39	М	39	13	39	44
96	50	М	50	12	50	40
85	50	F	50	7	50	33
81	90	М	90	9	90	34
97	88	F	88	8	88	32
86	76	М	76	12	76	46
72	80	М	80	15	80	51
85	38	М	38	13	38	49

0.4	47	N.4	47	12	47	47
84	47	M	47	13	47	47
98	28	М	28	14	28	52
93	45	M	45	15	45	54
100	31	M	31	15	31	50
96	58	М	58	15	58	48
89	48	М	48	16	48	48
100	30	М	30	22	30	53
82	70	М	70	21	70	55
98	21	М	21	19	21	52
74	50	М	50	18	50	51
96	40	М	40	16	40	49
85	57	М	57	21	57	55
68	98	М	98	17	98	51
84	72	М	72	16	72	50
88	27	М	27	16	27	50
75	37	М	37	17	37	52
79	27	М	27	19	27	54
65	43	М	43	17	43	51
67	89	М	89	19	89	55
75	58	М	58	17	58	50
88	37	М	37	16	37	48
96	20	M	20	16	20	50
83	22	М	22	16	22	49
85	39	М	39	16	39	50
86	64	М	64	18	64	54
80	46	М	46	16	46	48
73	48	М	48	17	48	51

APPENDIX F

BO Score	JS Score			
X	Υ	X ²	Y ²	XY
98	68	9604	4624	6664
92	90	8464	8100	8280
89	67	7921	4489	5963
90	86	8100	7396	7740
93	98	8649	9604	9114
124	49	15376	2401	6076
102	74	10404	5476	7548
84	71	7056	5041	5964
79	87	6241	7569	6873
83	62	6889	3844	5146
51	93	2601	8649	4743
58	80	3364	6400	4640
39	78	1521	6084	3042
52	84	2704	7056	4368
48	84	2304	7056	4032
17	95	289	9025	1615
57	85	3249	7225	4845
67	69	4489	4761	4623
35	94	1225	8836	3290
48	77	2304	5929	3696
64	53	4096	2809	3392
51	98	2601	9604	4998
69	83	4761	6889	5727
72	91	5184	8281	6552
25	86	625	7396	2150
38	88	1444	7744	3344
72	91	5184	8281	6552
69	83	4761	6889	5727
44	78	1936	6084	3432
76	78	5776	6084	5928
39	78	1521	6084	3042
52	84	2704	7056	4368
48	84	2304	7056	4032
17	85	289	7225	1445
57	88	3249	7744	5016
47	69	2209	4761	3243
35	94	1225	8836	3290
48	77	2304	5929	3696
64	53	4096	2809	3392
51	94	2601	8836	4794

69 83 4761 6889 5727 72 71 5184 5041 5112 25 80 625 6400 2000 38 88 1444 7744 3344 55 78 3025 6084 4290 39 84 1521 7056 3276 44 80 1936 6400 3520 76 86 5776 7396 6536 77 59 5929 3481 4543 42 78 1764 6084 3276 40 82 1600 6724 3280 42 78 1764 8100 3780 94 54 8836 2916 5076 79 81 6241 6561 6399 64 82 4096 6724 5248 51 70 2601 4900 3570 88 59 </th <th></th> <th></th> <th></th> <th></th> <th></th>					
25 80 625 6400 2000 38 88 1444 7744 3344 55 78 3025 6084 4290 39 84 1521 7056 3276 44 80 1936 6400 3520 76 86 5776 7396 6536 77 59 5929 3481 4543 42 78 1764 6084 3276 40 82 1600 6724 3280 42 90 1764 8100 3780 94 54 8836 2916 5076 79 81 6241 6561 6399 64 82 4096 6724 5248 51 70 2601 4900 3570 88 59 7744 3481 5192 41 77 1681 5929 3157 98 74 </td <td>69</td> <td>83</td> <td>4761</td> <td>6889</td> <td>5727</td>	69	83	4761	6889	5727
38 88 1444 7744 3344 55 78 3025 6084 4290 39 84 1521 7056 3276 44 80 1936 6400 3520 76 86 5776 7396 6536 77 59 5929 3481 4543 42 78 1764 6084 3276 40 82 1600 6724 3280 42 90 1764 8100 3780 94 54 8836 2916 5076 79 81 6241 6561 6399 64 82 4096 6724 5248 51 70 2601 4900 3570 88 59 7744 3481 5192 41 77 1681 5929 3157 98 74 9604 5476 7252 43 86<	72	71	5184	5041	5112
55 78 3025 6084 4290 39 84 1521 7056 3276 44 80 1936 6400 3520 76 86 5776 7396 6536 77 59 5929 3481 4543 42 78 1764 6084 3276 40 82 1600 6724 3280 42 90 1764 8100 3780 94 54 8836 2916 5076 79 81 6241 6561 6399 64 82 4096 6724 5248 51 70 2601 4900 3570 88 59 7744 3481 5192 41 77 1681 5929 3157 98 74 9604 5476 7252 43 86 1849 7396 3698 58 74<	25	80	625	6400	2000
39 84 1521 7056 3276 44 80 1936 6400 3520 76 86 5776 7396 6536 77 59 5929 3481 4543 42 78 1764 6084 3276 40 82 1600 6724 3280 42 90 1764 8100 3780 94 54 8836 2916 5076 79 81 6241 6561 6399 64 82 4096 6724 5248 51 70 2601 4900 3570 88 59 7744 3481 5192 41 77 1681 5929 3157 98 74 9604 5476 7252 43 86 1849 7396 3698 58 74 3364 5476 4292 63 71<	38	88	1444	7744	3344
44 80 1936 6400 3520 76 86 5776 7396 6536 77 59 5929 3481 4543 42 78 1764 6084 3276 40 82 1600 6724 3280 42 90 1764 8100 3780 94 54 8836 2916 5076 79 81 6241 6561 6399 64 82 4096 6724 5248 51 70 2601 4900 3570 88 59 7744 3481 5192 41 77 1681 5929 3157 98 74 9604 5476 7252 43 86 1849 7396 3698 58 74 3364 5476 4292 63 71 3969 5041 4473 68 65<	55	78	3025	6084	4290
76 86 5776 7396 6536 77 59 5929 3481 4543 42 78 1764 6084 3276 40 82 1600 6724 3280 42 90 1764 8100 3780 94 54 8836 2916 5076 79 81 6241 6561 6399 64 82 4096 6724 5248 51 70 2601 4900 3570 88 59 7744 3481 5192 41 77 1681 5929 3157 98 74 9604 5476 7252 43 86 1849 7396 3698 58 74 3364 5476 4292 63 71 3969 5041 4473 68 65 4624 4225 4420 50 83<	39	84	1521	7056	3276
77 59 5929 3481 4543 42 78 1764 6084 3276 40 82 1600 6724 3280 42 90 1764 8100 3780 94 54 8836 2916 5076 79 81 6241 6561 6399 64 82 4096 6724 5248 51 70 2601 4900 3570 88 59 7744 3481 5192 41 77 1681 5929 3157 98 74 9604 5476 7252 43 86 1849 7396 3698 58 74 3364 5476 4292 63 71 3969 5041 4473 68 65 4624 4225 4420 50 83 2500 6889 4150 39 70<	44	80	1936	6400	3520
42 78 1764 6084 3276 40 82 1600 6724 3280 42 90 1764 8100 3780 94 54 8836 2916 5076 79 81 6241 6561 6399 64 82 4096 6724 5248 51 70 2601 4900 3570 88 59 7744 3481 5192 41 77 1681 5929 3157 98 74 9604 5476 7252 43 86 1849 7396 3698 58 74 3364 5476 4292 63 71 3969 5041 4473 68 65 4624 4225 4420 50 83 2500 6889 4150 39 70 1521 4900 2730 60 56<	76	86	5776	7396	6536
40 82 1600 6724 3280 42 90 1764 8100 3780 94 54 8836 2916 5076 79 81 6241 6561 6399 64 82 4096 6724 5248 51 70 2601 4900 3570 88 59 7744 3481 5192 41 77 1681 5929 3157 98 74 9604 5476 7252 43 86 1849 7396 3698 58 74 3364 5476 7252 43 86 1849 7396 3698 58 74 3364 5476 4292 63 71 3969 5041 4473 68 65 4624 4225 4420 50 83 2500 6889 4150 39 70<	77	59	5929	3481	4543
42 90 1764 8100 3780 94 54 8836 2916 5076 79 81 6241 6561 6399 64 82 4096 6724 5248 51 70 2601 4900 3570 88 59 7744 3481 5192 41 77 1681 5929 3157 98 74 9604 5476 7252 43 86 1849 7396 3698 58 74 3364 5476 4292 63 71 3969 5041 4473 68 65 4624 4225 4420 50 83 2500 6889 4150 39 70 1521 4900 2730 60 56 3600 3136 3360 21 86 441 7396 1806 18 100<	42	78	1764	6084	3276
94 54 8836 2916 5076 79 81 6241 6561 6399 64 82 4096 6724 5248 51 70 2601 4900 3570 88 59 7744 3481 5192 41 77 1681 5929 3157 98 74 9604 5476 7252 43 86 1849 7396 3698 58 74 3364 5476 4292 63 71 3969 5041 4473 68 65 4624 4225 4420 50 83 2500 6889 4150 39 70 1521 4900 2730 60 56 3600 3136 3360 21 86 441 7396 1806 18 100 324 10000 1800 52 97<	40	82	1600	6724	3280
79 81 6241 6561 6399 64 82 4096 6724 5248 51 70 2601 4900 3570 88 59 7744 3481 5192 41 77 1681 5929 3157 98 74 9604 5476 7252 43 86 1849 7396 3698 58 74 3364 5476 4292 63 71 3969 5041 4473 68 65 4624 4225 4420 50 83 2500 6889 4150 39 70 1521 4900 2730 60 56 3600 3136 3360 21 86 441 7396 1806 18 100 324 10000 1800 52 97 2704 9409 5044 54 94<	42	90	1764	8100	3780
64 82 4096 6724 5248 51 70 2601 4900 3570 88 59 7744 3481 5192 41 77 1681 5929 3157 98 74 9604 5476 7252 43 86 1849 7396 3698 58 74 3364 5476 4292 63 71 3969 5041 4473 68 65 4624 4225 4420 50 83 2500 6889 4150 39 70 1521 4900 2730 60 56 3600 3136 3360 21 86 441 7396 1806 18 100 324 10000 1800 52 97 2704 9409 5044 54 94 2916 8836 5076 48 85<	94	54	8836	2916	5076
51 70 2601 4900 3570 88 59 7744 3481 5192 41 77 1681 5929 3157 98 74 9604 5476 7252 43 86 1849 7396 3698 58 74 3364 5476 4292 63 71 3969 5041 4473 68 65 4624 4225 4420 50 83 2500 6889 4150 39 70 1521 4900 2730 60 56 3600 3136 3360 21 86 441 7396 1806 18 100 324 10000 1800 52 97 2704 9409 5044 54 94 2916 8836 5076 48 85 2304 7225 4080 33 96<	79	81	6241	6561	6399
88 59 7744 3481 5192 41 77 1681 5929 3157 98 74 9604 5476 7252 43 86 1849 7396 3698 58 74 3364 5476 4292 63 71 3969 5041 4473 68 65 4624 4225 4420 50 83 2500 6889 4150 39 70 1521 4900 2730 60 56 3600 3136 3360 21 86 441 7396 1806 18 100 324 10000 1800 52 97 2704 9409 5044 54 94 2916 8836 5076 48 85 2304 7225 4080 33 96 1089 9216 3168 48 88<	64	82	4096	6724	5248
41 77 1681 5929 3157 98 74 9604 5476 7252 43 86 1849 7396 3698 58 74 3364 5476 4292 63 71 3969 5041 4473 68 65 4624 4225 4420 50 83 2500 6889 4150 39 70 1521 4900 2730 60 56 3600 3136 3360 21 86 441 7396 1806 18 100 324 10000 1800 52 97 2704 9409 5044 54 94 2916 8836 5076 48 85 2304 7225 4080 33 96 1089 9216 3168 48 88 2304 7744 4224 73 97<	51	70	2601	4900	3570
98 74 9604 5476 7252 43 86 1849 7396 3698 58 74 3364 5476 4292 63 71 3969 5041 4473 68 65 4624 4225 4420 50 83 2500 6889 4150 39 70 1521 4900 2730 60 56 3600 3136 3360 21 86 441 7396 1806 18 100 324 10000 1800 52 97 2704 9409 5044 54 94 2916 8836 5076 48 85 2304 7225 4080 33 96 1089 9216 3168 48 88 2304 7744 4224 73 97 5329 9409 7081 40 88<	88	59	7744	3481	5192
43 86 1849 7396 3698 58 74 3364 5476 4292 63 71 3969 5041 4473 68 65 4624 4225 4420 50 83 2500 6889 4150 39 70 1521 4900 2730 60 56 3600 3136 3360 21 86 441 7396 1806 18 100 324 10000 1800 52 97 2704 9409 5044 54 94 2916 8836 5076 48 85 2304 7225 4080 33 96 1089 9216 3168 48 88 2304 7744 4224 73 97 5329 9409 7081 40 88 1600 7744 3520 23 81<	41	77	1681	5929	3157
58 74 3364 5476 4292 63 71 3969 5041 4473 68 65 4624 4225 4420 50 83 2500 6889 4150 39 70 1521 4900 2730 60 56 3600 3136 3360 21 86 441 7396 1806 18 100 324 10000 1800 52 97 2704 9409 5044 54 94 2916 8836 5076 48 85 2304 7225 4080 33 96 1089 9216 3168 48 88 2304 7744 4224 73 97 5329 9409 7081 40 88 1600 7744 3520 23 81 529 6561 1863 32 96 </td <td>98</td> <td>74</td> <td>9604</td> <td>5476</td> <td>7252</td>	98	74	9604	5476	7252
63 71 3969 5041 4473 68 65 4624 4225 4420 50 83 2500 6889 4150 39 70 1521 4900 2730 60 56 3600 3136 3360 21 86 441 7396 1806 18 100 324 10000 1800 52 97 2704 9409 5044 54 94 2916 8836 5076 48 85 2304 7225 4080 33 96 1089 9216 3168 48 88 2304 7744 4224 73 97 5329 9409 7081 40 88 1600 7744 3520 23 81 529 6561 1863 53 62 2809 3844 3286 32 96 </td <td>43</td> <td>86</td> <td>1849</td> <td>7396</td> <td>3698</td>	43	86	1849	7396	3698
68 65 4624 4225 4420 50 83 2500 6889 4150 39 70 1521 4900 2730 60 56 3600 3136 3360 21 86 441 7396 1806 18 100 324 10000 1800 52 97 2704 9409 5044 54 94 2916 8836 5076 48 85 2304 7225 4080 33 96 1089 9216 3168 48 88 2304 7744 4224 73 97 5329 9409 7081 40 88 1600 7744 3520 23 81 529 6561 1863 53 62 2809 3844 3286 32 96 1024 9216 3072 20 83 </td <td>58</td> <td>74</td> <td>3364</td> <td>5476</td> <td>4292</td>	58	74	3364	5476	4292
50 83 2500 6889 4150 39 70 1521 4900 2730 60 56 3600 3136 3360 21 86 441 7396 1806 18 100 324 10000 1800 52 97 2704 9409 5044 54 94 2916 8836 5076 48 85 2304 7225 4080 33 96 1089 9216 3168 48 88 2304 7744 4224 73 97 5329 9409 7081 40 88 1600 7744 3520 23 81 529 6561 1863 53 62 2809 3844 3286 32 96 1024 9216 3072 20 83 400 6889 1660 33 97 <td>63</td> <td>71</td> <td>3969</td> <td>5041</td> <td>4473</td>	63	71	3969	5041	4473
39 70 1521 4900 2730 60 56 3600 3136 3360 21 86 441 7396 1806 18 100 324 10000 1800 52 97 2704 9409 5044 54 94 2916 8836 5076 48 85 2304 7225 4080 33 96 1089 9216 3168 48 88 2304 7744 4224 73 97 5329 9409 7081 40 88 1600 7744 3520 23 81 529 6561 1863 53 62 2809 3844 3286 32 96 1024 9216 3072 20 83 400 6889 1660 33 97 1089 9409 3201 37 56 <td>68</td> <td>65</td> <td>4624</td> <td>4225</td> <td>4420</td>	68	65	4624	4225	4420
60 56 3600 3136 3360 21 86 441 7396 1806 18 100 324 10000 1800 52 97 2704 9409 5044 54 94 2916 8836 5076 48 85 2304 7225 4080 33 96 1089 9216 3168 48 88 2304 7744 4224 73 97 5329 9409 7081 40 88 1600 7744 3520 23 81 529 6561 1863 53 62 2809 3844 3286 32 96 1024 9216 3072 20 83 400 6889 1660 33 97 1089 9409 3201 37 56 1369 3136 2072 78 74 <td>50</td> <td>83</td> <td>2500</td> <td>6889</td> <td>4150</td>	50	83	2500	6889	4150
21 86 441 7396 1806 18 100 324 10000 1800 52 97 2704 9409 5044 54 94 2916 8836 5076 48 85 2304 7225 4080 33 96 1089 9216 3168 48 88 2304 7744 4224 73 97 5329 9409 7081 40 88 1600 7744 3520 23 81 529 6561 1863 53 62 2809 3844 3286 32 96 1024 9216 3072 20 83 400 6889 1660 33 97 1089 9409 3201 37 56 1369 3136 2072 78 74 6084 5476 5772 48 70 <td>39</td> <td>70</td> <td>1521</td> <td>4900</td> <td>2730</td>	39	70	1521	4900	2730
18 100 324 10000 1800 52 97 2704 9409 5044 54 94 2916 8836 5076 48 85 2304 7225 4080 33 96 1089 9216 3168 48 88 2304 7744 4224 73 97 5329 9409 7081 40 88 1600 7744 3520 23 81 529 6561 1863 53 62 2809 3844 3286 32 96 1024 9216 3072 20 83 400 6889 1660 33 97 1089 9409 3201 37 56 1369 3136 2072 78 74 6084 5476 5772 48 70 2304 4900 3360	60	56	3600	3136	3360
52 97 2704 9409 5044 54 94 2916 8836 5076 48 85 2304 7225 4080 33 96 1089 9216 3168 48 88 2304 7744 4224 73 97 5329 9409 7081 40 88 1600 7744 3520 23 81 529 6561 1863 53 62 2809 3844 3286 32 96 1024 9216 3072 20 83 400 6889 1660 33 97 1089 9409 3201 37 56 1369 3136 2072 78 74 6084 5476 5772 48 70 2304 4900 3360	21	86	441	7396	1806
54 94 2916 8836 5076 48 85 2304 7225 4080 33 96 1089 9216 3168 48 88 2304 7744 4224 73 97 5329 9409 7081 40 88 1600 7744 3520 23 81 529 6561 1863 53 62 2809 3844 3286 32 96 1024 9216 3072 20 83 400 6889 1660 33 97 1089 9409 3201 37 56 1369 3136 2072 78 74 6084 5476 5772 48 70 2304 4900 3360	18	100	324	10000	1800
48 85 2304 7225 4080 33 96 1089 9216 3168 48 88 2304 7744 4224 73 97 5329 9409 7081 40 88 1600 7744 3520 23 81 529 6561 1863 53 62 2809 3844 3286 32 96 1024 9216 3072 20 83 400 6889 1660 33 97 1089 9409 3201 37 56 1369 3136 2072 78 74 6084 5476 5772 48 70 2304 4900 3360	52	97	2704	9409	5044
33 96 1089 9216 3168 48 88 2304 7744 4224 73 97 5329 9409 7081 40 88 1600 7744 3520 23 81 529 6561 1863 53 62 2809 3844 3286 32 96 1024 9216 3072 20 83 400 6889 1660 33 97 1089 9409 3201 37 56 1369 3136 2072 78 74 6084 5476 5772 48 70 2304 4900 3360	54	94	2916	8836	5076
48 88 2304 7744 4224 73 97 5329 9409 7081 40 88 1600 7744 3520 23 81 529 6561 1863 53 62 2809 3844 3286 32 96 1024 9216 3072 20 83 400 6889 1660 33 97 1089 9409 3201 37 56 1369 3136 2072 78 74 6084 5476 5772 48 70 2304 4900 3360	48	85	2304	7225	4080
73 97 5329 9409 7081 40 88 1600 7744 3520 23 81 529 6561 1863 53 62 2809 3844 3286 32 96 1024 9216 3072 20 83 400 6889 1660 33 97 1089 9409 3201 37 56 1369 3136 2072 78 74 6084 5476 5772 48 70 2304 4900 3360	33	96	1089	9216	3168
40 88 1600 7744 3520 23 81 529 6561 1863 53 62 2809 3844 3286 32 96 1024 9216 3072 20 83 400 6889 1660 33 97 1089 9409 3201 37 56 1369 3136 2072 78 74 6084 5476 5772 48 70 2304 4900 3360	48	88	2304	7744	4224
23 81 529 6561 1863 53 62 2809 3844 3286 32 96 1024 9216 3072 20 83 400 6889 1660 33 97 1089 9409 3201 37 56 1369 3136 2072 78 74 6084 5476 5772 48 70 2304 4900 3360	73	97	5329	9409	7081
53 62 2809 3844 3286 32 96 1024 9216 3072 20 83 400 6889 1660 33 97 1089 9409 3201 37 56 1369 3136 2072 78 74 6084 5476 5772 48 70 2304 4900 3360	40	88	1600	7744	3520
32 96 1024 9216 3072 20 83 400 6889 1660 33 97 1089 9409 3201 37 56 1369 3136 2072 78 74 6084 5476 5772 48 70 2304 4900 3360	23	81	529	6561	1863
20 83 400 6889 1660 33 97 1089 9409 3201 37 56 1369 3136 2072 78 74 6084 5476 5772 48 70 2304 4900 3360	53	62	2809	3844	3286
33 97 1089 9409 3201 37 56 1369 3136 2072 78 74 6084 5476 5772 48 70 2304 4900 3360	32	96	1024	9216	3072
37 56 1369 3136 2072 78 74 6084 5476 5772 48 70 2304 4900 3360	20	83	400	6889	1660
78 74 6084 5476 5772 48 70 2304 4900 3360	33	97	1089	9409	3201
48 70 2304 4900 3360	37	56	1369	3136	2072
	78	74	6084	5476	5772
107 87 11449 7569 9309	48	70	2304	4900	3360
	107	87	11449	7569	9309

40	82	1600	6724	3280
39	94	1521	8836	3666
50	96	2500	9216	4800
50	85	2500	7225	4250
90	81	8100	6561	7290
88	97	7744	9409	8536
76	86	5776	7396	6536
80	72	6400	5184	5760
38	85	1444	7225	3230
47	84	2209	7056	3948
28	98	784	9604	2744
45	93	2025	8649	4185
31	100	961	10000	3100
58	96	3364	9216	5568
48	89	2304	7921	4272
30	100	900	10000	3000
70	82	4900	6724	5740
21	98	441	9604	2058
50	74	2500	5476	3700
40	96	1600	9216	3840
57	85	3249	7225	4845
98	68	9604	4624	6664
72	84	5184	7056	6048
27	88	729	7744	2376
37	75	1369	5625	2775
27	79	729	6241	2133
43	65	1849	4225	2795
89	67	7921	4489	5963
58	75	3364	5625	4350
37	88	1369	7744	3256
20	96	400	9216	1920
22	83	484	6889	1826
39	85	1521	7225	3315
64	86	4096	7396	5504
46	80	2116	6400	3680
48	73	2304	5329	3504
6580	9789	421112	814685	523934

APPENDIX G
Data Sheet for burnout scores and age

Data Sheet for burnout scores and age						
B.O.Score	Age					
Х	Υ	X ²	Y ²	XY		
98	27	9604	729	2646		
92	26	8464	676	2392		
89	26	7921	676	2314		
90	24	8100	576	2160		
93	25	8649	625	2325		
124	26	15376	676	3224		
102	29	10404	841	2958		
84	27	7056	729	2268		
79	26	6241	676	2054		
83	28	6889	784	2324		
51	27	2601	729	1377		
58	29	3364	841	1682		
39	30	1521	900	1170		
52	30	2704	900	1560		
48	26	2304	676	1248		
17	26	289	676	442		
57	26	3249	676	1482		
67	28	4489	784	1876		
35	28	1225	784	980		
48	29	2304	841	1392		
64	27	4096	729	1728		
51	26	2601	676	1326		
69	29	4761	841	2001		
72	24	5184	576	1728		
25	25	625	625	625		
38	26	1444	676	988		
72	26	5184	676	1872		
69	27	4761	729	1863		
44	28	1936	784	1232		
76	27	5776	729	2052		
39	26	1521	676	1014		
52	26	2704	676	1352		
48	29	2304	841	1392		
17	28	289	784	476		
57	30	3249	900	1710		
47	30	2209	900	1410		
35	30	1225	900	1050		
48	29	2304	841	1392		
64	27	4096	729	1728		
51	25	2601	625	1275		

69 27 4761 729 1863 72 26 5184 676 1872 25 28 625 784 700 38 27 1444 729 1026 55 27 3025 729 1485 39 28 1521 784 1092 44 29 1936 841 1276 76 28 5776 784 2128 77 27 5929 729 2079 42 30 1764 900 1260 40 28 1600 784 1120 42 29 1764 841 1218 94 31 8836 961 2914 79 37 6241 1369 2923 64 31 4096 961 1984 51 32 2601 1024 1632 88 33 <td< th=""><th></th><th></th><th></th><th></th><th></th></td<>					
25 28 625 784 700 38 27 1444 729 1026 55 27 3025 729 1485 39 28 1521 784 1092 44 29 1936 841 1276 76 28 5776 784 2128 77 27 5929 729 2079 42 30 1764 900 1260 40 28 1600 784 1120 42 29 1764 841 1218 94 31 8836 961 2914 79 37 6241 1369 2923 64 31 4096 961 1984 51 32 2601 1024 1632 88 33 7744 1089 2904 41 35 1681 1225 1435 98 40 <	69	27	4761	729	1863
38 27 1444 729 1026 55 27 3025 729 1485 39 28 1521 784 1092 44 29 1936 841 1276 76 28 5776 784 2128 77 27 5929 729 2079 42 30 1764 900 1260 40 28 1600 784 1120 42 29 1764 841 1218 94 31 8836 961 2914 79 37 6241 1369 2923 64 31 4096 961 1984 51 32 2601 1024 1632 88 33 7744 1089 2904 41 35 1681 1225 1435 98 40 9604 1600 3920 43 39	72	26	5184	676	1872
55 27 3025 729 1485 39 28 1521 784 1092 44 29 1936 841 1276 76 28 5776 784 2128 77 27 5929 729 2079 42 30 1764 900 1260 40 28 1600 784 1120 42 29 1764 841 1218 94 31 8836 961 2914 79 37 6241 1369 2923 64 31 4096 961 1984 51 32 2601 1024 1632 88 33 7744 1089 2904 41 35 1681 1225 1435 98 40 9604 1600 3920 43 39 1849 1521 1677 58 37	25	28	625	784	700
39 28 1521 784 1092 44 29 1936 841 1276 76 28 5776 784 2128 77 27 5929 729 2079 42 30 1764 900 1260 40 28 1600 784 1120 42 29 1764 841 1218 94 31 8836 961 2914 79 37 6241 1369 2923 64 31 4096 961 1984 51 32 2601 1024 1632 88 33 7744 1089 2904 41 35 1681 1225 1435 98 40 9604 1600 3920 43 39 1849 1521 1677 58 37 3364 1369 2146 63 35	38	27	1444	729	1026
44 29 1936 841 1276 76 28 5776 784 2128 77 27 5929 729 2079 42 30 1764 900 1260 40 28 1600 784 1120 42 29 1764 841 1218 94 31 8836 961 2914 79 37 6241 1369 2923 64 31 4096 961 1984 51 32 2601 1024 1632 88 33 7744 1089 2904 41 35 1681 1225 1435 98 40 9604 1600 3920 43 39 1849 1521 1677 58 37 3364 1369 2146 63 35 3969 1225 2205 68 38	55	27	3025	729	1485
76 28 5776 784 2128 77 27 5929 729 2079 42 30 1764 900 1260 40 28 1600 784 1120 42 29 1764 841 1218 94 31 8836 961 2914 79 37 6241 1369 2923 64 31 4096 961 1984 51 32 2601 1024 1632 88 33 7744 1089 2904 41 35 1681 1225 1435 98 40 9604 1600 3920 43 39 1849 1521 1677 58 37 3364 1369 2146 63 35 3969 1225 2205 68 38 4624 1444 2584 50 33	39	28	1521	784	1092
77 27 5929 729 2079 42 30 1764 900 1260 40 28 1600 784 1120 42 29 1764 841 1218 94 31 8836 961 2914 79 37 6241 1369 2923 64 31 4096 961 1984 51 32 2601 1024 1632 88 33 7744 1089 2904 41 35 1681 1225 1435 98 40 9604 1600 3920 43 39 1849 1521 1677 58 37 3364 1369 2146 63 35 3969 1225 2205 68 38 4624 1444 2584 50 33 2500 1089 1650 39 31	44	29	1936	841	1276
42 30 1764 900 1260 40 28 1600 784 1120 42 29 1764 841 1218 94 31 8836 961 2914 79 37 6241 1369 2923 64 31 4096 961 1984 51 32 2601 1024 1632 88 33 7744 1089 2904 41 35 1681 1225 1435 98 40 9604 1600 3920 43 39 1849 1521 1677 58 37 3364 1369 2146 63 35 3969 1225 2205 68 38 4624 1444 2584 50 33 2500 1089 1650 39 31 1521 961 1209 60 34	76	28	5776	784	2128
40 28 1600 784 1120 42 29 1764 841 1218 94 31 8836 961 2914 79 37 6241 1369 2923 64 31 4096 961 1984 51 32 2601 1024 1632 88 33 7744 1089 2904 41 35 1681 1225 1435 98 40 9604 1600 3920 43 39 1849 1521 1677 58 37 3364 1369 2146 63 35 3969 1225 2205 68 38 4624 1444 2584 50 33 2500 1089 1650 39 31 1521 961 1209 60 34 3600 1156 2040 21 36	77	27	5929	729	2079
42 29 1764 841 1218 94 31 8836 961 2914 79 37 6241 1369 2923 64 31 4096 961 1984 51 32 2601 1024 1632 88 33 7744 1089 2904 41 35 1681 1225 1435 98 40 9604 1600 3920 43 39 1849 1521 1677 58 37 3364 1369 2146 63 35 3969 1225 2205 68 38 4624 1444 2584 50 33 2500 1089 1650 39 31 1521 961 1209 60 34 3600 1156 2040 21 36 441 1296 756 18 42	42	30	1764	900	1260
94 31 8836 961 2914 79 37 6241 1369 2923 64 31 4096 961 1984 51 32 2601 1024 1632 88 33 7744 1089 2904 41 35 1681 1225 1435 98 40 9604 1600 3920 43 39 1849 1521 1677 58 37 3364 1369 2146 63 35 3969 1225 2205 68 38 4624 1444 2584 50 33 2500 1089 1650 39 31 1521 961 1209 60 34 3600 1156 2040 21 36 441 1296 756 18 42 324 1764 756 52 42	40	28	1600	784	1120
79 37 6241 1369 2923 64 31 4096 961 1984 51 32 2601 1024 1632 88 33 7744 1089 2904 41 35 1681 1225 1435 98 40 9604 1600 3920 43 39 1849 1521 1677 58 37 3364 1369 2146 63 35 3969 1225 2205 68 38 4624 1444 2584 50 33 2500 1089 1650 39 31 1521 961 1209 60 34 3600 1156 2040 21 36 441 1296 756 18 42 324 1764 756 52 42 2704 1764 2184 54 43	42	29	1764	841	1218
64 31 4096 961 1984 51 32 2601 1024 1632 88 33 7744 1089 2904 41 35 1681 1225 1435 98 40 9604 1600 3920 43 39 1849 1521 1677 58 37 3364 1369 2146 63 35 3969 1225 2205 68 38 4624 1444 2584 50 33 2500 1089 1650 39 31 1521 961 1209 60 34 3600 1156 2040 21 36 441 1296 756 18 42 324 1764 756 52 42 2704 1764 2184 54 43 2916 1849 2322 48 45	94	31	8836	961	2914
51 32 2601 1024 1632 88 33 7744 1089 2904 41 35 1681 1225 1435 98 40 9604 1600 3920 43 39 1849 1521 1677 58 37 3364 1369 2146 63 35 3969 1225 2205 68 38 4624 1444 2584 50 33 2500 1089 1650 39 31 1521 961 1209 60 34 3600 1156 2040 21 36 441 1296 756 18 42 324 1764 756 52 42 2704 1764 2184 54 43 2916 1849 2322 48 45 2304 2025 2160 33 34	79	37	6241	1369	2923
88 33 7744 1089 2904 41 35 1681 1225 1435 98 40 9604 1600 3920 43 39 1849 1521 1677 58 37 3364 1369 2146 63 35 3969 1225 2205 68 38 4624 1444 2584 50 33 2500 1089 1650 39 31 1521 961 1209 60 34 3600 1156 2040 21 36 441 1296 756 18 42 324 1764 756 52 42 2704 1764 2184 54 43 2916 1849 2322 48 45 2304 2025 2160 33 34 1089 1156 1122 48 36	64	31	4096	961	1984
41 35 1681 1225 1435 98 40 9604 1600 3920 43 39 1849 1521 1677 58 37 3364 1369 2146 63 35 3969 1225 2205 68 38 4624 1444 2584 50 33 2500 1089 1650 39 31 1521 961 1209 60 34 3600 1156 2040 21 36 441 1296 756 18 42 324 1764 756 52 42 2704 1764 2184 54 43 2916 1849 2322 48 45 2304 2025 2160 33 34 1089 1156 1122 48 36 2304 1296 1728 73 40	51	32	2601	1024	1632
98 40 9604 1600 3920 43 39 1849 1521 1677 58 37 3364 1369 2146 63 35 3969 1225 2205 68 38 4624 1444 2584 50 33 2500 1089 1650 39 31 1521 961 1209 60 34 3600 1156 2040 21 36 441 1296 756 18 42 324 1764 756 52 42 2704 1764 2184 54 43 2916 1849 2322 48 45 2304 2025 2160 33 34 1089 1156 1122 48 36 2304 1296 1728 73 40 5329 1600 2920 40 41	88	33	7744	1089	2904
43 39 1849 1521 1677 58 37 3364 1369 2146 63 35 3969 1225 2205 68 38 4624 1444 2584 50 33 2500 1089 1650 39 31 1521 961 1209 60 34 3600 1156 2040 21 36 441 1296 756 18 42 324 1764 756 52 42 2704 1764 2184 54 43 2916 1849 2322 48 45 2304 2025 2160 33 34 1089 1156 1122 48 36 2304 1296 1728 73 40 5329 1600 2920 40 41 1600 1681 1640 23 38	41	35	1681	1225	1435
58 37 3364 1369 2146 63 35 3969 1225 2205 68 38 4624 1444 2584 50 33 2500 1089 1650 39 31 1521 961 1209 60 34 3600 1156 2040 21 36 441 1296 756 18 42 324 1764 756 52 42 2704 1764 2184 54 43 2916 1849 2322 48 45 2304 2025 2160 33 34 1089 1156 1122 48 36 2304 1296 1728 73 40 5329 1600 2920 40 41 1600 1681 1640 23 38 529 1444 874 53 44	98	40	9604	1600	3920
63 35 3969 1225 2205 68 38 4624 1444 2584 50 33 2500 1089 1650 39 31 1521 961 1209 60 34 3600 1156 2040 21 36 441 1296 756 18 42 324 1764 756 52 42 2704 1764 2184 54 43 2916 1849 2322 48 45 2304 2025 2160 33 34 1089 1156 1122 48 36 2304 1296 1728 73 40 5329 1600 2920 40 41 1600 1681 1640 23 38 529 1444 874 53 44 2809 1936 2332 32 43	43	39	1849	1521	1677
68 38 4624 1444 2584 50 33 2500 1089 1650 39 31 1521 961 1209 60 34 3600 1156 2040 21 36 441 1296 756 18 42 324 1764 756 52 42 2704 1764 2184 54 43 2916 1849 2322 48 45 2304 2025 2160 33 34 1089 1156 1122 48 36 2304 1296 1728 73 40 5329 1600 2920 40 41 1600 1681 1640 23 38 529 1444 874 53 44 2809 1936 2332 32 43 1024 1849 1376 20 39	58	37	3364	1369	2146
50 33 2500 1089 1650 39 31 1521 961 1209 60 34 3600 1156 2040 21 36 441 1296 756 18 42 324 1764 756 52 42 2704 1764 2184 54 43 2916 1849 2322 48 45 2304 2025 2160 33 34 1089 1156 1122 48 36 2304 1296 1728 73 40 5329 1600 2920 40 41 1600 1681 1640 23 38 529 1444 874 53 44 2809 1936 2332 32 43 1024 1849 1376 20 39 400 1521 780 33 32	63	35	3969	1225	2205
39 31 1521 961 1209 60 34 3600 1156 2040 21 36 441 1296 756 18 42 324 1764 756 52 42 2704 1764 2184 54 43 2916 1849 2322 48 45 2304 2025 2160 33 34 1089 1156 1122 48 36 2304 1296 1728 73 40 5329 1600 2920 40 41 1600 1681 1640 23 38 529 1444 874 53 44 2809 1936 2332 32 43 1024 1849 1376 20 39 400 1521 780 33 32 1089 1024 1056 37 35	68	38	4624	1444	2584
60 34 3600 1156 2040 21 36 441 1296 756 18 42 324 1764 756 52 42 2704 1764 2184 54 43 2916 1849 2322 48 45 2304 2025 2160 33 34 1089 1156 1122 48 36 2304 1296 1728 73 40 5329 1600 2920 40 41 1600 1681 1640 23 38 529 1444 874 53 44 2809 1936 2332 32 43 1024 1849 1376 20 39 400 1521 780 33 32 1089 1024 1056 37 35 1369 1225 1295 78 37	50	33	2500	1089	1650
21 36 441 1296 756 18 42 324 1764 756 52 42 2704 1764 2184 54 43 2916 1849 2322 48 45 2304 2025 2160 33 34 1089 1156 1122 48 36 2304 1296 1728 73 40 5329 1600 2920 40 41 1600 1681 1640 23 38 529 1444 874 53 44 2809 1936 2332 32 43 1024 1849 1376 20 39 400 1521 780 33 32 1089 1024 1056 37 35 1369 1225 1295 78 37 6084 1369 2886 48 33 2304 1089 1584	39	31	1521	961	1209
18 42 324 1764 756 52 42 2704 1764 2184 54 43 2916 1849 2322 48 45 2304 2025 2160 33 34 1089 1156 1122 48 36 2304 1296 1728 73 40 5329 1600 2920 40 41 1600 1681 1640 23 38 529 1444 874 53 44 2809 1936 2332 32 43 1024 1849 1376 20 39 400 1521 780 33 32 1089 1024 1056 37 35 1369 1225 1295 78 37 6084 1369 2886 48 33 2304 1089 1584	60	34	3600	1156	2040
52 42 2704 1764 2184 54 43 2916 1849 2322 48 45 2304 2025 2160 33 34 1089 1156 1122 48 36 2304 1296 1728 73 40 5329 1600 2920 40 41 1600 1681 1640 23 38 529 1444 874 53 44 2809 1936 2332 32 43 1024 1849 1376 20 39 400 1521 780 33 32 1089 1024 1056 37 35 1369 1225 1295 78 37 6084 1369 2886 48 33 2304 1089 1584	21	36	441	1296	756
54 43 2916 1849 2322 48 45 2304 2025 2160 33 34 1089 1156 1122 48 36 2304 1296 1728 73 40 5329 1600 2920 40 41 1600 1681 1640 23 38 529 1444 874 53 44 2809 1936 2332 32 43 1024 1849 1376 20 39 400 1521 780 33 32 1089 1024 1056 37 35 1369 1225 1295 78 37 6084 1369 2886 48 33 2304 1089 1584	18	42	324	1764	756
48 45 2304 2025 2160 33 34 1089 1156 1122 48 36 2304 1296 1728 73 40 5329 1600 2920 40 41 1600 1681 1640 23 38 529 1444 874 53 44 2809 1936 2332 32 43 1024 1849 1376 20 39 400 1521 780 33 32 1089 1024 1056 37 35 1369 1225 1295 78 37 6084 1369 2886 48 33 2304 1089 1584	52	42	2704	1764	2184
33 34 1089 1156 1122 48 36 2304 1296 1728 73 40 5329 1600 2920 40 41 1600 1681 1640 23 38 529 1444 874 53 44 2809 1936 2332 32 43 1024 1849 1376 20 39 400 1521 780 33 32 1089 1024 1056 37 35 1369 1225 1295 78 37 6084 1369 2886 48 33 2304 1089 1584	54	43	2916	1849	2322
48 36 2304 1296 1728 73 40 5329 1600 2920 40 41 1600 1681 1640 23 38 529 1444 874 53 44 2809 1936 2332 32 43 1024 1849 1376 20 39 400 1521 780 33 32 1089 1024 1056 37 35 1369 1225 1295 78 37 6084 1369 2886 48 33 2304 1089 1584	48	45	2304	2025	2160
73 40 5329 1600 2920 40 41 1600 1681 1640 23 38 529 1444 874 53 44 2809 1936 2332 32 43 1024 1849 1376 20 39 400 1521 780 33 32 1089 1024 1056 37 35 1369 1225 1295 78 37 6084 1369 2886 48 33 2304 1089 1584	33	34	1089	1156	1122
40 41 1600 1681 1640 23 38 529 1444 874 53 44 2809 1936 2332 32 43 1024 1849 1376 20 39 400 1521 780 33 32 1089 1024 1056 37 35 1369 1225 1295 78 37 6084 1369 2886 48 33 2304 1089 1584	48	36	2304	1296	
23 38 529 1444 874 53 44 2809 1936 2332 32 43 1024 1849 1376 20 39 400 1521 780 33 32 1089 1024 1056 37 35 1369 1225 1295 78 37 6084 1369 2886 48 33 2304 1089 1584	73	40	5329	1600	2920
53 44 2809 1936 2332 32 43 1024 1849 1376 20 39 400 1521 780 33 32 1089 1024 1056 37 35 1369 1225 1295 78 37 6084 1369 2886 48 33 2304 1089 1584	40	41	1600	1681	1640
32 43 1024 1849 1376 20 39 400 1521 780 33 32 1089 1024 1056 37 35 1369 1225 1295 78 37 6084 1369 2886 48 33 2304 1089 1584	23	38	529	1444	874
20 39 400 1521 780 33 32 1089 1024 1056 37 35 1369 1225 1295 78 37 6084 1369 2886 48 33 2304 1089 1584	53	44	2809	1936	2332
33 32 1089 1024 1056 37 35 1369 1225 1295 78 37 6084 1369 2886 48 33 2304 1089 1584	32	43	1024	1849	1376
37 35 1369 1225 1295 78 37 6084 1369 2886 48 33 2304 1089 1584	20	39	400	1521	780
78 37 6084 1369 2886 48 33 2304 1089 1584	33	32	1089	1024	1056
48 33 2304 1089 1584	37	35	1369	1225	1295
	78	37	6084	1369	2886
107 31 11449 961 3317	48	33	2304		1584
	107	31	11449	961	3317

40	45	1600	2025	1800
39	44	1521	1936	1716
50	40	2500	1600	2000
50	33	2500	1089	1650
90	34	8100	1156	3060
88	32	7744	1024	2816
76	46	5776	2116	3496
80	51	6400	2601	4080
38	49	1444	2401	1862
47	47	2209	2209	2209
28	52	784	2704	1456
45	54	2025	2916	2430
31	50	961	2500	1550
58	48	3364	2304	2784
48	48	2304	2304	2304
30	53	900	2809	1590
70	55	4900	3025	3850
21	52	441	2704	1092
50	51	2500	2601	2550
40	49	1600	2401	1960
57	55	3249	3025	3135
98	51	9604	2601	4998
72	50	5184	2500	3600
27	50	729	2500	1350
37	52	1369	2704	1924
27	54	729	2916	1458
43	51	1849	2601	2193
89	55	7921	3025	4895
58	50	3364	2500	2900
37	48	1369	2304	1776
20	50	400	2500	1000
22	49	484	2401	1078
39	50	1521	2500	1950
64	54	4096	2916	3456
46	48	2116	2304	2208
48	51	2304	2601	2448
6580	4350	421112	169184	232142

APPENDIX H
Data Sheet for Burnout scores and experience

Data	Sheet for Di	ur nout scor	es and expe	itchee
B.O.Score	Exp			
Х	Υ	X ²	Y ²	XY
98	2	9604	4	196
92	2	8464	4	184
89	2	7921	4	178
90	1	8100	1	90
93	1	8649	1	93
124	3	15376	9	372
102	4	10404	16	408
84	2	7056	4	168
79	2	6241	4	158
83	3	6889	9	249
51	3	2601	9	153
58	4	3364	16	232
39	5	1521	25	195
52	4	2704	16	208
48	3	2304	9	144
17	3	289	9	51
57	2	3249	4	114
67	4	4489	16	268
35	4	1225	16	140
48	4	2304	16	192
64	5	4096	25	320
51	5	2601	25	255
69	5	4761	25	345
72	1	5184	1	72
25	2	625	4	50
38	3	1444	9	114
72	3	5184	9	216
69	4	4761	16	276
44	4	1936	16	176
76	4	5776	16	304
39	4	1521	16	156
52	4	2704	16	208
48	5	2304	25	240
17	5	289	25	85
57	5	3249	25	285
47	4	2209	16	188
35	5	1225	25	175
48	4	2304	16	192
64	3	4096	9	192
51	3	2601	9	153
			•	•

69	5	4761	25	345
72	4	5184	16	288
25	5	625	25	125
38	4	1444	16	152
55	4	3025	16	220
39	4	1521	16	156
44	5	1936	25	220
76	4	5776	16	304
77	4	5929	16	308
42	5	1764	25	210
40	5	1600	25	200
42	5	1764	25	210
94	5	8836	25	470
79	5	6241	25	395
64	5	4096	25	320
51	5	2601	25	255
88	6	7744	36	528
41	8	1681	64	328
98	13	9604	169	1274
43	11	1849	121	473
58	10	3364	100	580
63	9	3969	81	567
68	11	4624	121	748
50	7	2500	49	350
39	6	1521	36	234
60	9	3600	81	540
21	8	441	64	168
18	13	324	169	234
52	13	2704	169	676
54	12	2916	144	648
48	11	2304	121	528
33	8	1089	64	264
48	10	2304	100	480
73	14	5329	196	1022
40	15	1600	225	600
23	14	529	196	322
53	15	2809	225	795
32	15	1024	225	480
20	13	400	169	260
33	7	1089	49	231
37	8	1369	64	296
78	9	6084	81	702
48	8	2304	64	384
107	7	11449	49	749

40	13	1600	169	520
39	13	1521	169	507
50	12	2500	144	600
50	7	2500	49	350
90	9	8100	81	810
88	8	7744	64	704
76	12	5776	144	912
80	15	6400	225	1200
38	13	1444	169	494
47	13	2209	169	611
28	14	784	196	392
45	15	2025	225	675
31	15	961	225	465
58	15	3364	225	870
48	16	2304	256	768
30	22	900	484	660
70	21	4900	441	1470
21	19	441	361	399
50	18	2500	324	900
40	16	1600	256	640
57	21	3249	441	1197
98	17	9604	289	1666
72	16	5184	256	1152
27	16	729	256	432
37	17	1369	289	629
27	19	729	361	513
43	17	1849	289	731
89	19	7921	361	1691
58	17	3364	289	986
37	16	1369	256	592
20	16	400	256	320
22	16	484	256	352
39	16	1521	256	624
64	18	4096	324	1152
46	16	2116	256	736
48	17	2304	289	816
6580	1060	421112	13198	53970

APPENDIX I

Data Sheet for t-value

(A) Age of Teachers under study										
Group	N1	Mean	ZX_1^2	Group	N2	Mean	ZX_2^2			
Α	52	58.38	3177	В	38	56	2322			
В	38	56	1676	С	30	53.94	1323			
Α	52	58.36	4946	С	30	53.94	2853			
(B) Teaching Experience										
Χ	56	54.83	4800	Χ	42	51.35	3600			
Υ	42	51.35	2756	Z	22	46.52	1443			
Z	56	46.52	5516	Z	22	46.52	2167			
(C) Gender of Teachers										
Male	98	56.5	7660	Female	22	52.45	2220			

APPENDIX J

Data Sheet for Correlation (r)

	ZX	ZY	ZX ²	ZY ²	ZXY	N
Burnout and	6580	9805	402320	824740	232142	120
Job						
satisfaction						
Burnout and	6580	4350	421112	169184	232142	120
Age						
Burnout &	6580	1060	421112	13198	53970	120
teaching						
Experience						

Appendix K

Formulae used in calculation

Following formulae were employed by the researcher for calculation.

(A) Product Moment of Correlation:

$$r = \frac{NZXY-(ZX) (ZY)}{NZX^2-(ZX)^2 X NZY^2-(ZY)^2}$$

Where,

ZX = Sum of the X-scores

ZY = Sum of the X-scores

 $ZX^2 = Sum of the squared X scores$

 $ZY^2 = Sum of the squared Y scores$

ZXY = Sum of the products of the paired X and Y scores

N = Number of paired scores.

r = Coefficient of Correlation

(B) Values of student distribution (t- value):

Where,

MI- M2 = Means of two samples

 ZX_{1}^{2} Sum of the squares of the deviation from the means in sample one

 ZX^{2}_{2} = Sum of the squares of the deviation from the means in sample two

 $N_1 =$ Sum of the squares of the deviation from the means in sample one

N2= Sum of the squares of the deviation from the means in sample two

Df = Degrees of freedom. It is equal to N_1+N_2-2

(C) Means.

$$Zfx^{1}$$

$$M = AM + \cdots x i$$

$$N$$

Where,

AM = Assumed means

 X^1 = deviation from the means

Zfx¹= sum of the products of frequencies and deviations of the observations from the assumed mean.

i= width of class interval

N = Total number of observations.

(D): Standard Deviation:

$$SD = ---- X [ZNfx^2 - (Zfx)^2]$$

$$N$$

Where,

I = Width of the class interval

N = total number of measures

F = Frequency of class interval

X = Deviation of the raw measures from the assumed mean divided by the length of the class interval.
