A STUDY OF FRUSTRATION AMONG TEACHERS IN RELATION TO CREATIVITY AND CERTAIN PERSONALITY FACTORS

ABSTRACT

THESIS SUBMITTED FOR THE DEGREE OF

Doctor of Philosophy
IN
EDUCATION

By
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UNDER THE SUPERVISION OF
PROF. NAJMUL HAQ

DEPARTMENT OF EDUCATION
ALIGARH MUSLIM UNIVERSITY,
ALIGARH (INDIA)

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ABSTRACT

"The destiny of India is now being shaped in her classrooms."

Indian Education Commission (1964-66)

The purpose of the present investigator was primarily to identify the magnitude of frustration among teachers in relation to creativity and certain personality factors. There is no gainsaying that the welfare and prosperity of a nation depends on its natural and human resources, human resource is perhaps more important than the natural resource because the later can only be profitably utilised if the former is efficient. Thus human resource is of paramount importance for the progress of a country. The teacher being a catalytic agent in the process of education, dispenses knowledge, forms the time schedule, selects reading material, plays the role of subject specialist and helps pupils to overcome their difficulties and personal problems. If the teacher is frustrated it can hardly be imagined how much damage shall it cause to the progress of the new generation or the future citizens.
Success of students in any course depends on the effectiveness of teachers. However, the entire structure of education is unsteady if the teacher is weak and ineffective. There appears to be a general agreement on the fact that educational attainment of children depends to a large extent on the attitude of the teachers towards their profession. It is largely true that the professional performance of the teacher is indirectly related to his profession. If he has a wholesome attitude towards his profession he teaches with interest, takes pains and makes efforts and even sacrifices his personal comfort and ambition to be a good teacher. It will be his utmost effort to see that his students not only make progress in academic field but also in other aspects of life. Naturally a teacher with favourable attitude towards his profession would produce the right type of youths, while the one with an unfavourable attitude towards the profession would produce unbalanced personalities.

There is a feeling among some people and even among a section of teachers also that people enter this profession with hope, enthusiasm and vigour, but something either in the system of education itself or the social and economic environment of the school demoralize them, reduce their interest and produce psychologically unfavourable attitude towards this profession. It the attitude of
teacher towards his profession is such an important factor, a study of it will be useful and of great practical value to those concerned with education.

Few attempts have also been made to identify the causes of frustration among teachers. Some of the attempts made in this regard are: Cooper, 1986; Capel, 1987; Manthei & Soleman, 1988; O Conor & Clarke, 1990; Pierce & Molloy, 1990; Sahni & Chadha, 1991; Smith & Bourke, 1992; Tuetteeman & Punch, 1992; Friedman, Boyle, Borg, Falzon and Baglioni, 1995; Manthei, Gilmore, Tuck & Adair, 1996; Dussault, Deaudelin, Royer & Loiselle, 1999; Weisberg & Sagie, 1999.

The present study in specific terms is therefore, "A Study of Frustration Among Teachers in Relation to Creativity and Certain Personality Factors."

6.1 OBJECTIVES OF THE STUDY:

The present work has thus been carried out with the following objectives:

(1) To find out the extent of frustration among the male and female teachers at the secondary school level.
(2) To identify statistically the relationship between frustration and creativity and its components i.e. fluency, flexibility and originality.

(3) To find out if certain personality factors may be accountable for frustration among teachers.

(4) To explore if there were any sex differences along creativity and personality characteristics, among the male and female secondary school teachers.

6.2 HYPOTHESES OF THE STUDY:

The hypotheses formulated for the present study were as under:

(1) Both among the male and female teachers quite a considerable number will be found to be feeling frustrated at the secondary school level - experiencing frustration of different magnitude.

(2) It is expected that the teachers with greater creative potential would be feeling more frustrated than those with lesser creative urge.

(3) Certain personality factors may also be found exerting their influence on different magnitude of frustration among teachers.

(4) In the case of male and female teachers there may appear sex
differences both on creativity and personality characteristics.

6.3 SAMPLE:

The present study was conducted on a sample of 300 teachers from eight secondary schools of Aligarh city.

6.4 TOOLS:

In the present investigation the investigator employed the following standard tools and measures.

(1) Frustration test developed by N.S. Chauhan & G.P. Tiwari.

(2) Hindi version of Baqer Mehdi's verbal test of creative thinking.

(3) The culture fair intelligence test (scale 2) by R.B. Cattell and A.K.S. Cattell.

(4) R.B. Cattell's sixteen personality factor questionnaire (form A) covering sixteen personality dimensions (16 PF).

6.5 PAIRS OF GROUPS COMPARED:

Following were the six groups formulated for comparison on different variables.

(i) High frustration group vs. Low frustration group.

(ii) High frustration male teachers vs. Low frustration male teachers.
(iii) High frustration female teachers vs. Low frustration female teachers.

(iv) Male teachers vs. Female teachers.

(v) High frustration male teachers vs. High frustration female teachers.

(vi) Low frustration male teachers vs. Low frustration female teachers.

6.6 **FINDING SIGNIFICANCE OF DIFFERENCE:**

The 't' test was employed to find out the significance of difference between the six pairs of groups. The results of the 't' test have been presented in the tables 4.1 - 4.25.

6.7 **CONCLUSIONS:**

The findings of the present investigation may be summarized as follows:

(1) The high frustration group was found to be higher on regression, fixation, resignation, aggression and total frustration than the low frustration group.

(2) There was no significant difference between the high frustration group and the low frustration group on the measure of fluency,
flexibility, originality and total creativity.

(3) The high frustration group and the low frustration group were similar on the measure of intelligence.

(4) The high frustration group was found to be imaginative (M), apprehensive (O), and tensed (Q). Low frustration group was found to be practical, self assured and relaxed.

(5) High frustration male teachers were significantly higher on regression, fixation, resignation, aggression and total frustration than the low frustration male teachers.

(6) High frustration male teachers scored higher than the low frustration male teachers on the measure of originality. But on fluency, flexibility and total creativity they were similar.

(7) The high frustration male teachers and the low frustration male teachers were almost similar on the measure of intelligence.

(8) No significant difference was found between the high frustration male teachers and the low frustration male teachers on sixteen personality factors.

(9) The high frustration female teachers were found to be higher on regression, fixation, resignation, aggression and total
frustration than the low frustration female teachers.

(10) There was no significant difference between the high frustration female teachers and the low frustration female teachers on the measure of fluency, flexibility, originality and total creativity.

(11) Both the groups i.e. the high frustration female teachers and the low frustration female teachers were similar on the measure of intelligence.

(12) The high frustration female teachers were found to be imaginative (M), shrewd and calculating (N), apprehensive (O), and tense (Q₄) while the low frustration female teachers were found to be practical, natural, self assured and relaxed.

(13) Female teachers had significantly greater regression than the male teachers.

(14) Male teachers had significantly greater aggression than the female teachers.

(15) Male and female teachers were similar on the measure of fixation, resignation and total frustration.

(16) Both the male and female teachers were similar on the measure of fluency, flexibility and total creativity.
(17) On the measure of originality male teachers scored significantly higher than the female teachers.

(18) There was no significant difference between the male and female teachers on the measure of intelligence.

(19) Male teachers were found to be emotionally stable (C), venturesome (H), imaginative (M), self sufficient ($Q_2$), and tense ($Q_4$). Female teachers were found to be affected by feelings, shy, practical, group dependent and relaxed.

(20) High frustration female teachers were found to be higher on regression.

(21) The high frustration male teachers were more aggressive than the high frustration female teachers.

(22) On the measure of fixation, resignation and total frustration both the groups i.e. the high frustration male teachers and the high frustration female teachers were almost similar.

(23) The high frustration male teachers and the high frustration female teachers were not significantly different on the measure of fluency, flexibility and total creativity.
(24) High frustration male teachers were significantly higher on the measure of originality than the high frustration female teachers.

(25) High frustration male teachers and the high frustration female teachers were almost similar on the measure of intelligence.

(26) High frustration male teachers were found to be happy go lucky (F), venturesome (H). High frustration female teachers were found to be sober and shy.

(27) The low frustration female teachers scored significantly higher than the low frustration male teachers on the measure of regression.

(28) There was no significant difference between the low frustration male teachers and the low frustration female teachers on the measure of fixation, resignation, aggression and total frustration.

(29) Both the groups i.e. the low frustration male teachers and the low frustration female teachers were not much different on the measure of fluency, flexibility, originality and total creativity.

(30) The low frustration male teachers and the low frustration female teachers were once again almost similar on the measure of intelligence.
(31) The low frustration male teachers were found to be tender minded (I), imaginative (M) and tensed (Qₜ). Low frustration female teachers were found to be tough minded, practical and relaxed.

6.8 SUGGESTIONS:

The investigator would like to submit her humble suggestions in the light of her experience and the results of the present study.

(1) The teachers' personality characteristics being only partly and moderately responsible for the feeling of frustration among teachers. The causal factors may be explored in such external phenomena as the social climate of the schools, work load, interactional patterns between the teachers and children, teachers and administrators, and teachers and parents.

(2) For the committed teachers, the slow progress of children including the problems of motivating them to learn and insufficient time to perform necessary teaching tasks, may also be a very interesting field for further explorations.

(3) Poor salaries and lack of recognition in the society affecting the job satisfaction can also be a provoking subject for a researcher in the field of teachers' frustration.
(4) The magnitude of frustration may be comparatively studied at different levels of education e.g. primary, secondary and the university level.

(5) The extent of frustration and their causal factors may quite profitably be identified and compared in different professional courses also like among the teachers of IIT, engineering colleges, medical colleges and teacher training institutions etc.

(6) Experimental studies may be conducted involving the control groups to find out effective remedial measures for at least minimizing the damaging effects of frustration among teachers both on their health and level of performance.

6.9 **EDUCATIONAL IMPLICATIONS:**

Frustration among teachers is a vitally important topic in the teaching profession because it has been found to be increasingly affecting not only the health of the teachers but also their work performance resulting in lowering of the standards of education as reported by Pithers and Fogarty (1995). Quite understandably if the causal factors of frustration among teachers are reliably identified and the remedial measures are experimented upon and adopted in the real situations it would not only -
(i) relieve the teachers at different levels of education, of their mental tension causing unnecessary anxiety, stress and frustration; (ii) but also raise their standard of teaching performance; (iii) and the levels of students learning resulting in a continuous rise in the curve of educational standards not only in India but throughout the world.
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CERTIFICATE

This is to certify that the thesis entitled "A Study of Frustration Among Teachers in Relation to Creativity and Certain Personality Factors" submitted by Ms. Saima Siddiqi for Ph.D. (Education) degree of Aligarh Muslim University, Aligarh, is her original work. The thesis has been completed under my supervision. In my humble judgement, the work is fit for submission for the degree of Ph.D. in education and can be considered a contribution to knowledge in this specific field.

Najmul Haq

(PROF. NAJMUL HAQ)
Supervisor
ACKNOWLEDGEMENT

It is solely due to the mercy of Almighty "ALLAH" that this work has been completed.

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Saima Siddiqi
(SAIMA SIDDIQI)
<table>
<thead>
<tr>
<th>CONTENTS</th>
<th>PAGE NO.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACKNOWLEDGEMENT</td>
<td></td>
</tr>
<tr>
<td>CHAPTER-I: INTRODUCTION</td>
<td>1-22</td>
</tr>
<tr>
<td>1.1 Role of a teacher</td>
<td>3</td>
</tr>
<tr>
<td>1.2 Teacher is the focus and anchor</td>
<td>4</td>
</tr>
<tr>
<td>1.3 Purpose of the study</td>
<td>6</td>
</tr>
<tr>
<td>1.4 Statement of the problem</td>
<td>10</td>
</tr>
<tr>
<td>1.5 Frustration: concept and definition</td>
<td>11</td>
</tr>
<tr>
<td>1.6 Creativity: concept and definition</td>
<td>13</td>
</tr>
<tr>
<td>1.7 Intelligence: concept and definition</td>
<td>16</td>
</tr>
<tr>
<td>1.8 Personality: concept and definition</td>
<td>18</td>
</tr>
<tr>
<td>1.9 Objectives of the problem</td>
<td>21</td>
</tr>
<tr>
<td>1.10 Hypotheses of the problem</td>
<td>21</td>
</tr>
<tr>
<td>CHAPTER-II: REVIEW OF RELATED LITERATURE</td>
<td>23-71</td>
</tr>
<tr>
<td>2.1 Studies on teachers' frustration and stress</td>
<td>24</td>
</tr>
<tr>
<td>2.2 Studies on teachers' creativity</td>
<td>45</td>
</tr>
<tr>
<td>2.3 Studies on teachers' intelligence</td>
<td>51</td>
</tr>
<tr>
<td>2.4 Studies on teachers' personality</td>
<td>55</td>
</tr>
</tbody>
</table>
CHAPTER-III: METHOD AND PROCEDURE

3.1 Sample 72
3.2 Tools of the study 73
   3.21 Measure of frustration 74
   3.22 Measure of creativity 77
   3.23 Measure of intelligence 83
   3.24 Measure of personality 85
3.3 Administration of the tests and collection of data 90
3.4 Finding significance of difference 92

CHAPTER-IV: ANALYSIS AND INTERPRETATION OF DATA

4.1 Comparison between the high frustration group and the low frustration group. 97
4.2 Comparison between the high frustration male teachers and the low frustration male teachers 107
4.3 Comparison between the high frustration female teachers and the low frustration female teachers 115
4.4 Comparison between the male and the female teachers 126

4.5 Comparison between the high frustration male teachers and the high frustration female teachers 135

4.6 Comparison between the low frustration male teachers and the low frustration female teachers 145

CHAPTER-V: DISCUSSION 157-163

5.1 Results on frustration 157

5.2 Results on frustration and creativity 158

5.3 Results on personality characteristics 159

5.4 Results on sex differences along creativity and personality characteristics 160

CHAPTER-VI: SUMMARY 164-176

6.1 Objectives of the study 166

6.2 Hypotheses of the study 167

6.3 Sample 168

6.4 Tools 168

6.5 Pairs of groups compared 168
6.6 Finding significance of difference 169
6.7 Conclusions 169
6.8 Suggestions 174
6.9 Educational implications 175

BIBLIOGRAPHY 177-197

APPENDICES:

APPENDIX I Test of Frustration (Nairashya Maapa)
APPENDIX II Verbal Test of Creative Thinking
APPENDIX III Test of "g" Culture Fair
APPENDIX IV Sixteen Personality Factor Questionnaire (16 PF)
## LIST OF TABLES

<table>
<thead>
<tr>
<th>TABLE NO.</th>
<th>TITLE</th>
<th>PAGE NO.</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1</td>
<td>Details of items for each mode of frustration.</td>
<td>75</td>
</tr>
<tr>
<td>3.2</td>
<td>Scoring of frustration test.</td>
<td>76</td>
</tr>
<tr>
<td>3.3</td>
<td>Reliability of frustration test.</td>
<td>77</td>
</tr>
<tr>
<td>3.4</td>
<td>Test-retest reliabilities of factor scores and the total creativity scores.</td>
<td>79</td>
</tr>
<tr>
<td>3.5</td>
<td>Validity of creativity test.</td>
<td>80</td>
</tr>
<tr>
<td>3.6</td>
<td>16 PF dependability coefficients.</td>
<td>88</td>
</tr>
<tr>
<td>3.7</td>
<td>16 PF stability coefficients.</td>
<td>88</td>
</tr>
<tr>
<td>3.8</td>
<td>16 PF equivalence coefficients of test forms for each trait.</td>
<td>89</td>
</tr>
<tr>
<td>3.9</td>
<td>Direct concept validities of the 16 PF scales</td>
<td>89</td>
</tr>
<tr>
<td>3.10</td>
<td>Indirect concept validities of the full 16 PF</td>
<td>89</td>
</tr>
<tr>
<td>4.1</td>
<td>Showing the significance of difference between the mean scores of the high frustration group and the low frustration group on the measure of frustration and its components.</td>
<td>95</td>
</tr>
<tr>
<td>4.2</td>
<td>Showing the significance of difference between the mean scores of the high frustration group</td>
<td></td>
</tr>
</tbody>
</table>
and the low frustration group on the measure
of frustration and its components. 98

4.3 Showing the significance of difference between
the mean scores of the high frustration group and
the low frustration group on the measure of
creativity and its components. 101

4.4 Showing the significance of difference between
the mean scores of the high frustration group
and the low frustration group on the measure
of intelligence. 103

4.5 Showing the significance of difference between
the mean scores of the high frustration group
and the low frustration group on sixteen
personality factors. 105

4.6 Showing the significance of difference between
the mean scores of the high frustration male
teachers and the low frustration male teachers
on the measure of frustration and its components. 108

4.7 Showing the significance of difference between
the mean scores of the high frustration male
teachers and the low frustration male teachers
4.8 Showing the significance of difference between the mean scores of the high frustration male teachers and the low frustration male teachers on the measure of intelligence.

4.9 Showing the significance of difference between the mean scores of the high frustration male teachers and the low frustration male teachers on sixteen personality factors.

4.10 Showing the significance of difference between the mean scores of the high frustration female teachers and the low frustration female teachers on the measure of frustration and its components.

4.11 Showing the significance of difference between the mean scores of the high frustration female teachers and the low frustration female teachers on the measure of creativity and its components.

4.12 Showing the significance of difference between the mean scores of the high frustration female teachers and the low frustration female teachers on the measure of intelligence.
4.13 Showing the significance of difference between the mean scores of the high frustration female teachers and the low frustration female teachers on sixteen personality factors. 124

4.14 Showing the significance of difference between the mean scores of the male and female teachers on the measure of frustration and its components. 127

4.15 Showing the significance of difference between the mean scores of male and female teachers on the measure of creativity and its components. 129

4.16 Showing the significance of difference between the mean scores of male and female teachers on the measure of intelligence. 131

4.17 Showing the significance of difference between the mean scores of male and female teachers on sixteen personality factors. 133

4.18 Showing the significance of difference between the mean scores of the high frustration male teachers and the high frustration female teachers on the measure of frustration and its components. 136
4.19 Showing the significance of difference between the mean scores of the high frustration male teachers and the high frustration female teachers on the measure of creativity and its components. 140

4.20 Showing the significance of difference between the mean scores of the high frustration male teachers and the high frustration female teachers on the measure of intelligence. 142

4.21 Showing the significance of difference between the mean scores of the high frustration male teachers and the high frustration female teachers on sixteen personality factors. 144

4.22 Showing the significance of difference between the mean scores of the low frustration male teachers and the low frustration female teachers on the measure of frustration and its components. 146

4.23 Showing the significance of difference between the mean scores of the low frustration male teachers and the low frustration female teachers on the measure of creativity and its components. 150
4.24 Showing the significance of difference between the mean scores of the low frustration male teachers and the low frustration female teachers on the measure of intelligence. 152

4.25 Showing the significance of difference between the mean scores of the low frustration male teachers and the low frustration female teachers on sixteen personality factors. 154
CHAPTER - I

Introduction
INTRODUCTION

"The destiny of India is now being shaped in her classrooms"

Indian Education Commission (1964-66)

In the present Indian scenario frustration seems to be in the air. Ask any man, if he is feeling happy, contended; generally the answer is in negative. The poets and litterateurs have aired the same feeling in their best poems and plays. It is a great mystery that inspite of aspiring and craving for happiness people are enamouring upon tragedies and loving the saddest poems. Keats very much correctly says "our sweetest songs are those, that tell of saddest thought." Just mention the name of Shakespeare, and people shall come up with his tragedies - Romeo Juliet, Hamlet, Othello and King Lear - corresponding to their maturational levels and tastes. All the sad experiences expressed in the best literature of the world are the sweet and sad stories of hurdles, obstacles and in psychological language blocks frustrating the urges and drives and efforts for the satisfaction of some human need or aspiration. Exploring and analysing the whole phenomenon is too stupendous a task, too big to be tackled by a single investigator. But in the modern time a researcher can at least venture to find out the extent of frustration and its causal factors in a
limited circle of society like teachers for the present exploratory study and present humble research programme.

Needless to say, it has become by now an adage that the effectiveness of education is very much dependent on the effectiveness of its teachers. The importance of a teacher in the educational process is unquestionable. From the time teaching started to gain recognition as a profession, experts as well as common men began to wonder about the effectiveness of the teacher. However, the entire structure of education is unsteady if the teacher is weak and ineffective. In the field of education or in a specific teaching learning situation, he is the ultimate agent who dispenses knowledge, frames the time schedule, selects reading material, plays the role of subject specialist, and helps pupils to overcome their difficulties and personal problems. He influences his pupils by what he says, and even more by what he does. A teacher is the single most important factor in the success of pupil and thereby the entire society. Recognizing the importance of teachers National Policy on Education (1986) has rightly remarked that "no system of education can rise above the level of its teachers."

Cicero said 2000 years ago - what greater or better gift can we offer the republic than to teach and instruct our youth? His words
are as true today as they were 2000 years ago. Teachers still provide valuable and unique professional service to the nation: by guiding students in the development of high ideals and true appreciation of the freedom and responsibilities of any citizenship and by assisting them to develop the skill of clear and critical thinking teachers contribute significantly to the character of adults who will determine the future of nation.

In the words of Ryans (1960) "if competent teachers can be obtained the likelihood of attaining desirable educational outcomes is substantial. On the other hand, although schools may have excellent material resources in the form of equipment, buildings, and text books and although curricula may be appropriately adapted to community requirements, if the teachers are misfits or are indifferent to their responsibilities, the whole programme is likely to be ineffective and largely wasted."

1.1 ROLE OF A TEACHER

In considering the role of the teacher, one possible line of approach is to ask oneself why, society has to have schools and teachers at all, what functions they exist to perform. One of the most sophisticated examples of this approach is to be found in Talcott
Parson's classic article of the late 1950s "The School Class as a Social System" in which he contends that in a further aspect of teacher's role, he should aim at the internalization by his students of a level of social values and norms beyond what the family can be expected to cater for. The teacher must also try to develop in his pupils commitment to the performance of specific types of role within the structure of society. It goes without saying that he is responsible for the transmission to his students of the technical component of the skills enabling them to fulfil their future adult roles in work and other aspects of living. He must also seek to secure that his students develop the capacity for the inter personal behaviour appropriate to their future roles.

Thus it can be said that there is no substitute for a good teacher. The teachers leave indelible impressions upon their students. Naturally if teachers are good they will leave good impression upon their students.

1.2 **TEACHER IS THE FOCUS AND ANCHOR**

The Mudaliar report stated (1952-53) "we are convinced that the most important factor in the contemplated educational reconstruction is the teacher - his personal qualities, his educational
qualifications, his professional training and the place he occupies in the school as well as in the community."

At the back of every great man a good teacher is there who kindled enthusiasm, fostered confidence and guided him to the way of progress. A conqueror of the stature of Alexander The Great said "I owe my birth to my father but life to my teacher."

The Secondary Education Commission (1952-53) points out "every teacher and educationist of experience knows that even the best curriculum and the most perfect syllabus remains dead unless quickened into life by the right methods of teaching and right kind of teachers."

Indian Education Commission (1964-66) rightly said "of all the different factors which influence the quality of education and its contribution to national development the quality, competence and character of teachers are undoubtedly the most significant. Nothing is more important than securing a sufficient supply of high quality recruits to the teaching profession, providing them with the best possible professional preparations and creating satisfactory conditions of work in which they can be fully effective. A programme of high priority in the proposed educational reconstruction, therefore,
is to feed back a significant proportion of the talented men and women from schools and colleges into the educational system. For this purpose it is necessary to make an intensive and continuous effort to raise the economic, social and professional status of teachers in order to attract young men and women of ability to the profession and to retain them in it as dedicated, enthusiastic and contended workers."

1.3 PURPOSE OF THE STUDY

There appears to be general agreement on the fact that educational attainment of children depends to a large extent on the attitude of the teachers towards their profession. It is largely true that the professional performance of the teacher is indirectly related to his profession. If he has a wholesome attitude towards his profession he teaches with interest, takes pains and makes efforts and even sacrifices his personal comfort and ambition to be a good teacher. It will be his utmost effort to see that his students not only make progress in academic field but also in other aspects of life. Such a teacher will not only be a popular figure among his students and their parents but will greatly influence the personality of his students. Naturally a teacher with favourable attitude towards his profession would produce the right type of youths, while the one with an unfavourable attitude towards the profession would produce
unbalanced personalities. If the attitude of a teacher towards his profession is such an important factor, a study of it will be useful and of great practical value to educational authorities and to all others concerned within education.

Research on teachers in India has so far been concentrated mainly on issues and problems regarding management, curriculum, teaching, indiscipline etc. There have been hardly any serious attempt to study the sociological and psychological problems of teachers. Therefore, there is an urgent need to attempt to examine and resolve certain basic issues regarding the teacher community with special reference to frustration and causes related to it. Because it is the teacher community that can help to generate healthy academic atmosphere in educational institutions. Society should ensure that its teachers take full interest in their work and discharge their responsibilities to the maximum of their abilities.

There is an all round perception among teachers and those who study their behaviour that they suffer a great deal of occupational stress. Teaching including its administration is seen as a highly stressful profession perhaps more stressful than many others. This is perceived to occur because of the powerful interpersonal demands of the job and its attendant roles as well as its large task demands
and expectations.

There is a feeling among some people and even among a section of teachers also that people enter this profession with hope, enthusiasm and vigour, but something either in the system of education itself or the social and economic environment of the school demoralize them, reduce their interest and produce psychologically unfavourable attitude towards this profession.

Furthermore there is a research evidence that indicate that work related stress among teachers has serious implications for their work performance, health and psychological status of these professionals (e.g. Capel 1987, Cooper 1986, Pierce and Molloy 1990). Studies in Britain, Australia, Newzealand and the United States of America have found approximately 1/3 of teachers surveyed who have reported their job as highly or extremely highly stressful (e.g. Manthei & Soleman 1988, O'Connor and Clarke 1990).

Some studies of occupational stress have focused on the range and intensity of stressors that are common to teachers and their relationship to psychological and physiological symptoms (e.g. error making and burnout). Teaching context and personal factors also can strongly affect a teacher's level of stress (e.g. Smith & Bourke
A few studies have been conducted in India and abroad to explore the causes of frustration and the relationship between frustration and other cognitive, motivational and background variables. Kyriacou, Sutcliffe (1978) & Smilansky (1984) found four factors of teacher stress as pupil misbehaviour, poor working conditions, time pressure and poor school ethos. There are certain socio-ecological factors significantly and negatively related with teacher frustration such as recognition by society, suitable housing facilities, suitable facilities for children's education, suitable recreational facilities and a congenial home atmosphere (Sahni Vinod & Chadha 1991). Teacher stress is primarily a direct function of workload and student misbehaviour (Friedman, Boyle, Borg, Falzon and Baglioni 1995).

Pithers and Fogarty (1995) in their article on the symposium on teacher stress have summarised some of the most important findings in this area which show commonly found stressors, such as work overload, staff relationship, classroom discipline, lack of resources and conflict, as well as lack of professional recognition among many others.
Pupil recalcitrance and excessive demands on teachers' time as strong contributors to teachers stress (e.g. Manthei, Gilmore, Tuck and Adair 1996). Dussault, Deaudelin, Royer & Loiselle (1999) found professional isolation as the major source of teacher stress. Physical and mental exhaustion were found as the major causes which influence intention to leave the profession (e.g. Weisberg & Sagie, 1999).

Stress in teaching has a number of problematic outcomes. It influences teachers' behaviour, teaching styles and related activities in schools. Thus teachers' stress has become major concern while planning of teacher effectiveness.

Therefore, there is a need to study this population thoroughly and in exhaustive manner. The present study thus attempts to Study Frustration Among Teachers in Relation to Creativity and Certain Personality Factors.

1.4 STATEMENT OF THE PROBLEM

The present investigation, in specific terms is therefore, "A Study of Frustration Among Teachers in Relation to Creativity and Certain Personality Factors." For a better cognizance of the phenomena, therefore, the investigator seeks to explain the conceptual aspects of the problems to begin with.
1.5 FRUSTRATION : CONCEPT AND DEFINITION

Encyclopedia of Psychology (1951) defines "frustration is any interference with a goal response or with the instrumental acts leading to it."

According to Lexicon Universal Encyclopedia (1983) "frustration is the blocking of an organism's ongoing activity toward a goal".

According to the Oxford Advanced Learner's Dictionary (2000) "frustration is the feeling that make somebody feel annoyed or impatient because they cannot do or achieve what they want."

In the present study, the definition provided by Chauhan and Tiwari (1972) has been accepted for its greater comprehensiveness, as a working definition. Frustration has a different set of behaviour mechanisms. Its intense cathecticity and conativeness get expressed in various modes such as aggression, fixation, regression, resignation (Chauhan & Tiwari, 1972).

Aggression has been defined as an act whose goal response is injury to an organism. Aggression results where punishment is inflicted (Sears, Robert, R. 1951). Frustration results in aggression (Frustration - Aggression Hypothesis of the Yale group, Weller and Suleman, 1968). Aggression may be defined operationally in terms
of rude answering to elders, irritation, feeling of unfairness, carrying grudges, frequent quarrelling, broken engagement, impulses to take revenge, and reactionary attitudes to traditions and beliefs.

**Fixation** has been taken as a defence against anxiety by stopping the process of development (Symonds, 1946). In fixation, it is noted that behaviour appears that tends to be repeated over and over again without variations and shows a degree of resistance to change. Fixated behaviour may be taken in terms of interests and emotional attitudes to designate the attachment generally interpreted to belong to an early stage of development. The fixated persons experience difficulty in forming new attachments, developing new interests or adaptations. Fixation may occur in one's behaviour due to trauma or due to frustration of the normal expression of instinctual drive, or its over gratification. It weakens the ego of a person. It may be defined operationally in terms of cherishing for deep and lasting hurts, persistence of childhood fears, worries of hypoweight, feeling of being physically handicapped, falling health and negligence etc.

**Regression** in Freudian terms means a return to an earlier mode of adjustment. It is an 'acting out' i.e. resistance in analysis against the remembering of painful ideas. Operationally regression may be defined in terms of a behaviour characterised by bashfulness, finicky
about foods, feel lacking in self control, wish to be again escapist, homesick when away from home, cries easily, speech defective, excessively day dreams, exorbitantly ambitious etc.

**Resignation** is an emotionally tinged attitude shown by cessation of active response to a situation which we have previously been making efforts to alter. In resignation behaviour, we obtain extreme elimination of needs, no plans, no definite relations to the future; either no hopes at all or hopes which are not taken seriously (Zawadski and Lazaresfeld, 1935). The resignated behaviour possesses limitation of all needs, no plans, no social contacts, frequent and serious consideration of committing suicide, longing for loneliness, retreatism, returning within one's self, and lack of interest in surroundings etc.

1.6 **CREATIVITY : CONCEPT AND DEFINITION**

Once the phenomenon of creativity emerged on the horizon of behavioural sciences, researches and explorations on its manifold aspects were slowly to come up.

Guilford (1950) has made a distinction between two types of thinking abilities convergent thinking and divergent thinking. He defines divergent thinking as a kind of mental operation that leads
significantly away from the beaten track. Divergent production involves novel responses to a given stimulus unlike convergent thinking where the outcome is conventional.

Guilford relates divergent thinking to certain well known ability factors which seem to go with creative output. The primary traits, related to divergent thinking and therefore, to creativity, have been enumerated to include: sensitivity to problems, flexibility of thinking, fluency of thinking, originality, redefinition and elaboration.

In terms of product, creativity is recognised by the features of novelty and usefulness of the thing produced. The product may be an idea, a poem, a scientific theory or an invention or a masterpiece of art.

Jastrow (1932) observed that the triumphs of science, our inventions and discoveries, our own modest contributions and solutions are the results of some body constantly "thinking up something new."

Dravdahl (1956) states that creativity is the "capacity of a person to produce compositions products or idea of any sort which are essentially new or novel and previously unknown to the producer."
Attempts have also been made to explain the term creativity from the viewpoint of the personality of the creative person, some of the most important personality characteristics which have been found to be associated with creativity are openness to experience, persistence, a high level of energy, dominance and a reserved but assertive temperament. Other traits mentioned include humour, curiosity, fantasy, sensitivity and tolerance for ambiguity. Dellas and Gaier (1970) stated that the roots of creativity lie in personality and motivation.

Farisha (1978) discovered that "throughout the literature of creativity, personality variables emerge as factors significantly affecting the utilization of imagery and the development of creativity."

Some definitions of creativity emphasize imagination as an important factor in making a person creative. Osburn (1953) described creativity as "imagination combined with intent and effort."

Arieti (1976) stressed the importance of imagination as a precursor of creativity.

Parnes (1977) related the function of imagination to the functions of knowledge and judgement as they form together the essence of the creative process.
There seems to be as many definitions of creative thinking as there are psychologists. Goldman (1964) talks of creativity as an "umbrella term" and points out that it is over used to such an extent that it has come to mean nothing.

Through this one realises that creative thinking is elegant, elusive, unique, new and original. It may be mental power, ability, skill and talent expressed through different media.

1.7 INTELLIGENCE: CONCEPT AND DEFINITION

Intelligence is very important characteristic of personality but it is quite difficult to define intelligence precisely as no definition is independent and complete in itself. All the definitions emphasize different aspects of intelligence.

Intelligence the dictionary says is "the capacity to acquire and apply knowledge."

Stern (1914) defines intelligence as "a general capacity of an individual consciously to adjust his thinking to new requirements."

It is also the capacity to perform intellectual tasks by carrying on abstract thinking and to handle new practical tasks requiring the use of concrete media. Terman (1921) considered intelligence as "the ability to carry out abstract thinking."
Stoddard (1943) presented comprehensive description "intelligence is the ability to undertake activities that are characterised by (1) difficulty (2) complexity (3) abstraction (4) economy (5) adaptiveness to a goal (6) social values and (7) the emergence of originals, and to maintain such activities under conditions that demand a concentration of energy and a resistance to emotional forces."

Guilford (1957) has suggested that mind is composed of three dimensions namely operations, content and products. Every intellectual ability in the structure is characterized in terms of type of operation, the content and sort of products which results.

Mc Nemar (1964) has described intelligence as "the process or operation by which a given organism achieves an intellectual response."

According to the Advanced Learner's Dictionary (2000) "intelligence is the ability to learn, understand and think in a logical way about things."

So on the whole, intelligence is considered as the mental capacity or mental energy which enables the individual to handle his environment concerned with abstract, concrete or social situations successfully.
1.8 PERSONALITY: CONCEPT AND DEFINITION

It has always been a very complex and intricate problem for the psychologists to comprehend and explain what personality really refers to. There are a number of popular definitions of personality having for themselves different meanings attached to the term personality.

According to Morton Prince (1924) "personality is the sum total of all the biological, innate dispositions, impulses, tendencies appetites and instincts of the individual and the acquired dispositions and tendencies - acquired by experience."

R.S. Woodworth (1929) was led to deny personality and substantive intent and gave it a purely adverbial meaning thus "personality refers not to any particular sort of activity such as talking, remembering, thinking or loving but an individual can reveal his personality in the way he does any of these things."

Emphasis is also laid on the integrative aspect of personality and its definite pattern of organization. According to Warren's Dictionary (1934) "personality is the integrated organization of all the cognitive, affective, conative and physical characteristics of an individual as it manifest itself in focal distinctiveness from others."
Allport (1937) defines personality in a comprehensive manner covering physical, psychological, motivational and morale aspects of human personality. He defines it as follows: "personality is the dynamic organisation within the individual of those psycho-physical systems that determine his unique adjustment to his environment."

Since personality is a comprehensive and elusive psychological phenomena, psychologists have tried to understand and measure it from different dimensions and characterized it by the quality of uniqueness Guilford (1959) defines personality "An individual's personality then, is his unique pattern of traits ------ A trait is any distinguishable, relatively enduring way in which one individual differs from another."

Thus we see that different approaches have been made to define personality but there is no agreement on a single definition of personality. Fredenburgh (1971) in his book, The Psychology of Personality and Adjustment tried to summarize the various definitions in a single definition which runs as "personality is a stable system of complex characteristics by which the life pattern of the individual may be identified."
Mark Sherman (1979) defined personality as "the characteristic pattern of behaviours, cognitions and emotions which may be experienced by the individual and/or manifest to others."

The individuals who do not choose their careers according to their level of ability land in failure. Every job can be described in terms of personality characteristics it requires for the person to be happy and satisfied in it. It is only through the study of personality that the relevant differences among individuals can be made clear.

In the light of discussion given above it may be humbly concluded that it is vitally important for the educational institutions to find the degree of frustration experienced by their teachers, as the teachers' active participation with full commitment and devotion is possible only when the teachers are free from frustration of all colours and hues.

Thus the present study humbly deals with the identification of the magnitude of frustration among teachers in relation to creativity and certain personality factors and the topic runs as A Study of Frustration Among Teachers in Relation to Creativity and Certain Personality Factors.
1.9 OBJECTIVES OF THE PROBLEM

In the light of the discussion given above the present research programme was taken up with the following objectives:

(1) To find out the extent of frustration among the male and female teachers at the secondary school level.

(2) To identify statistically the relationship between frustration and creativity and its components i.e. fluency, flexibility and originality.

(3) To find out if certain personality factors may be accountable for frustration among teachers.

(4) To explore if there were any sex differences along creativity and personality characteristics, among the male and female secondary school teachers.

1.10 HYPOTHESES OF THE PROBLEM

Keeping in mind the objectives given above and consequent upon the discussion regarding frustration among teachers in the present introductory chapter it was hypothesized that -

(1) Both among the male and female teachers quite a considerable number will be found to be feeling frustrated at the secondary
school level - experiencing frustration of different magnitude.

(2) It is expected that the teachers with greater creative potential would be feeling more frustrated than those with lesser creative urge.

(3) Certain personality factors may also be found exerting their influence on different magnitudes of frustration among teachers.

(4) In the cases of male and female teachers there may appear sex differences both on creativity and personality characteristics.

A review of related literature is presented in the next chapter.
CHAPTER - II

REVIEW OF RELATED LITERATURE
REVIEW OF RELATED LITERATURE

As already discussed in the first chapter the present study aimed at identifying the magnitude of frustration among the teachers and its possible predictors in both the cognitive and non-cognitive domains, creativity and intelligence in the cognitive domain and different personality factors in the non-cognitive domain. Quite considerable work has been done on the effectiveness of these variables in different educational contexts. Yet with reference to teachers and especially the growing frustration of teachers and its possible causal factors is still a provoking challenge for the minds of researchers in education.

A classified brief discussion on the work done so far may be quite interesting in understanding the present problem. A Study of Frustration Among Teachers in Relation to Creativity and Certain Personality Factors.

Thus the discussion so far quite clearly brings out the urgency of further explorations in the field of teachers' increasing frustration and its concomitant factors, which is the main purpose of the present humble work.
2.1 STUDIES ON TEACHERS' FRUSTRATION AND STRESS

Malviya (1978) tried to investigate the pattern of reactions to frustration. The sample consisted of 203 male and female subjects ranging between 13-20 and between 21-35 years of age. Two forms of questionnaires - multiple choice and open ended were used for data collection. It was found that the mean score was higher on reactions of males than of females. Males were also more aggressive than females. The reactions to frustration were found to be affected by high scores on neuroticism and extroversion. The subjects were found to be different in their reactions under actual and ideal conditions.

Nayak (1982) investigated into the adjustment and job satisfaction of married and unmarried lady teachers. The sample comprised of 735 female teachers from different higher secondary schools of Jabalpur district. Of these 375 teachers were married and 410 were unmarried. Tools employed were teacher job satisfaction questionnaire, adjustment inventory for college students and teaching aptitude tests. The statistical techniques used for data analysis were frequency distribution, 't'-test and coefficient of correlation.

The findings of the research were: (i) No significant difference in the job satisfaction of married and unmarried female teachers
working in rural and urban areas was found. (ii) Teaching aptitude was found to have a significantly positive relationship with job satisfaction of female teachers.

Pachauri (1983) conducted a study to find out the individual as well as the collective impact of personality factors and sex and two modes of frustration on proficiency in teaching. 160 teachers teaching in different intermediate colleges of Agra city were selected by employing stratified random sampling technique. Data was collected by using Frustration Scale, 16 PF Questionnaire (in Hindi), the Teacher Efficiency Scale. Statistical techniques used were factorial design, analysis of variance of equal cell size and 't'-test. It was found that (i) teachers who were highly aggressive and regressive of either sex were more proficient in teaching. (ii) Reserved, relaxed, adjusted and controlled teachers were more proficient in teaching than those who were outgoing, tense, relaxed, and who possessed more anxiety. (iii) Teachers possessing high anxiety were more proficient in teaching. (iv) Teachers who were highly aggressive and regressive were more proficient in teaching.

Smilansky (1984) conducted a study of elementary school teachers' work satisfaction and reports of job related stress, and to
ascertain the relation of these two variables to both external factors (principal, other teachers, pupil and parents feelings about the teachers) and internal factors (perceived general life satisfaction and self efficacy). Interview technique was used on a sample of 36 female elementary school teachers chosen from four schools in an urban setting in Israel. Results showed that the highest rates of stress were associated with teachers' work load, pupil behaviour in school and the actual process of teaching. The lowest level of stress involved the relationship among teachers.

Sarah (1985) compared the perceived stress of special education teachers to the perceived stress of regular education teachers. Job stress in the school setting an instrument developed by Pettigrew (1982) was used on a sample of 264 teachers from seven schools. Statistical techniques used were analysis of variance, and descriptive analysis. The data revealed that regular education teachers perceived more significant degree of stress related to role overload, than did special education teachers. The special education teachers compared to regular education teachers perceived a more significant degree of stress related to peer support. There was no significant difference between the perceived stress of special education teachers and perceived stress of regular education teachers due to role
ambiguity, role conflict, role preparation, job satisfaction and illness symptoms etc.

**Sharma (1985)** conducted a study to find out the nature and extent of frustration among women working in various professions. The sample consisted of 240 married and 160 unmarried women working as teachers, nurses, doctors, bank employees and office workers in Varanasi city. The sample was drawn by incidental purposive sampling procedure. They were administered the Rosenweig PF study, personal value questionnaire, and a personal data sheet. It was found that women of all the groups were well adjusted and there was no difference in reaction to frustrating situations.

**Elizabeth (1986)** investigated to verify the sources of stress in teaching and sources of support for teachers under stress. Of the sample investigated were 275 elementary and secondary teachers in a suburban Massachusetts community. Teaching events stress inventory and the Schlansker supports value inventory were used as the measuring tools. It was found that about 10% of the teachers were experiencing stress leading to burnout. Teachers who were experiencing the least amount of burnout identified the principal as a significant source of support. Teachers experiencing a high degree
of burnout reported utilizing friends, sharing personal experiences and recognition of teaching performance leading to advancement as significant source of support.

**Marker (1986)** attempted to determine if social studies teachers report higher level of role related, task based and environmental stress than teachers of the other core subject areas of Math, Science and English at a statistically significant level. The sample consisted of 150 high school teachers from two Indiana School Corporations. The tools used were The Teacher Stress Measure and a paper-pencil assessment. Data was analysed with the help of analysis of variance (ANOVA). Results revealed that social studies teachers do not differ from teachers of other core subject areas regarding role related, task based and environmental stress at a statistically significant level.

**Snyder (1986)** investigated the effects of a discipline management programme on teacher stress. Data were collected on 227 7th grade teachers by using Minnesota teacher attitude inventory, and teaching anxiety scale. Statistical techniques used for data analysis were chi-square test and one way analysis of variance. A significant difference in stress scores was found between positive attitude teachers and negative attitude teachers. Positive attitude teachers reported less stress than negative attitude teachers.
Burg & Sharon (1987) investigated the relationship between job burnout, job stress and job satisfaction among school teachers. Surveys were sent to 1512 teachers who were randomly selected from all members of the Maryland State Teachers Association. Of these 741 responded. The data was analysed by way of a multitrait multimethod matrix and a factor analysis. It was concluded that the preponderance of the evidence implied that job burnout, job stress and job satisfaction were best considered separate concepts. It was found that there was a poor correlation between a global measure of stress and the teaching events stress inventory.

Dillihunt (1987) conducted a study to determine what relationship existed between stress levels of administrators and the effects of practiced administrative style. Survey responses were collected through a mailed questionnaire sent to private offices. Six factor analysis of variance test and 't'-test were used as statistical techniques. The study revealed that no significant relationships or correlations existed between task-oriented and relations oriented administrative style and stress levels.

Singh (1987) tried to investigate the extent and the patterns of reactions to frustration and professional adjustment of secondary school teachers. The study was conducted in two phases, a pilot
study on a sample of 100 teachers and the main study on the sample of 600 teachers selected from 29 schools of Ghazipur district of U.P. out of which 60 were female and 540 were male teachers. Frustration study tool, adjustment inventory and personal information blank developed by the investigator were employed as measuring tools. Data was analysed with the help of mean, SD, quartile deviation, coefficient of correlation, 't'-test, chi-square test, and point biserial correlation. It was found that (i) the occurrence of frustration in the sample was normal while that of adjustment was not normal, (ii) male teachers were more aggressive than female teachers, (iii) all the teachers were more or less similar in regression and resignation patterns, (iv) the teachers of the upper age group were found to be more frustrated than the teachers of the lower age group.

Mang (1989) conducted a study to find out the occupational stress and situational remedies in the teaching profession as perceived by secondary school teachers and administrators. Six administrators and 119 teachers in four school districts of South east Missouri participated in this study. Participants completed Ivancevich and Matterson's Stress Diagnostic Survey and responded to three open ended questions regarding administrators impact on teachers stress. The study revealed that group administrators were able to predict
with reasonable accuracy the causes of teacher stress and that administrative action impacts both positively and negatively on teacher stress levels. Teachers seemed to recognize that administrators have a limited impact on occupational stress for them.

The three sources of stress consistently cited by teachers were: rewards, quantitative overload and time pressure.

Sahni & Chadha (1991) administered a two part questionnaire to 80 college teachers to identify the social factors associated with frustration. The first part of the questionnaire measured the 3 dimensions of frustration syndrome identified by S. Chandra (1970) dissatisfaction, insecurity and anxiety. The second part contained 8 socio-ecological factors - five socio-ecological situations were significantly and negatively related to sample's feelings of frustration: recognition by society, suitable housing facilities for children's education, suitable recreational facilities and a congenial home atmosphere. Feelings that samples were holding their present job because they lacked better opportunities elsewhere were positively and significantly associated with feelings of frustration.

Beer & Beer (1992) compared the burnout and stress, depression and self esteem of regular education teachers and special
education teachers. 14 male and 39 female regular education teachers and 16 male and 17 female special education teachers completed the Beck depression inventory, the Coopersmith self esteem inventories and measures of stress and burnout. In regular classrooms teachers in grade schools experience less burnout and stress than did high school teachers. Total burnout scores of men and women who taught special education in high school were higher than those of male special education grade school teachers. Burnout lie scores were significantly higher for female special education high school teachers than for both male and female special education grade school teachers. Stress scores were significantly higher for male special education high school teachers than for female special education high school teachers and male special education grade school teachers. There was a significant negative association between depression and self esteem scores.

Chwalisz, Elizabeth & Russell (1992) tried to find out the relationship between causal attributions and self efficacy cognitions with regard to their ability to predict coping activities and subsequent outcomes of a stressful event. A model in which self efficacy mediates the relationships between attributions and coping was tested against a model in which attributions and self efficacy burnout, coping, self
efficacy and causal attributions. They also made a causal attribution for the most stressful event they had experienced at work that year. The mediational model more accurately represented the relationships among the constructs. Attributions had no direct effects on coping efforts and lower self efficacy was associated with emotion focused coping efforts.

Friedman & Farber (1992) conducted a study to find out the relationship of teacher burnout to the various ways that teacher view themselves professionally and to the ways in which they sense that others within the educational system view them. A total sample of 1,017 both female and male teachers from 40 Israeli elementary schools were randomly selected. Measuring tools employed were questionnaire, a modified form of the Maslach burnout inventory and a composite measure of professional self-concept. Data was analysed with the help of SD, factor analysis and Cronbach's alpha coefficient. Results revealed that the gratification which teachers receive from teaching bore the strongest negative correlation to burnout and teachers views of themselves as professionally competent and professionally satisfied bore the strongest correlation to burnout.
French (1993) examined the relationship between stressful circumstances and self reported teaching practices among 223 elementary school teachers. Nine stress factors accounted for 48.5% of the variance were: time control, relationships, curriculum concerns, student's motivation, career advancement, class size, role conflict, interference and job security. The four stress reactions identified were burnout, reduction in work load, tolerance and disengagement.

Gupta & Kaur (1993) tried to find out how burnout and job satisfaction were related to teaching competency. 440 trained graduate teachers including both males and females from high and higher secondary schools were randomly selected. Self rating scale for teachers, pupils rating of teachers scale, teachers job satisfaction scale, Maslach burnout inventory were employed as measuring tools. Data was analysed with the help of mean, SD, and test-retest reliability. Results showed that pupils rating of their teachers is not much similar to the teachers self rating. The mean value of the job satisfaction leads to the inference that teachers were highly satisfied with their jobs. More competent teachers were less fatigued and tired, exhausted as compared to less competent group and they had better sense of personal accomplishment.
Susan (1993) investigated the factors causing anxiety in British physical education teachers in their first or second year of teaching. Sample comprised of 104 subjects. Student teacher anxiety scale was used as a measuring tool. Statistical techniques used were mean, SD, factor analysis and analysis of variance. Result showed that beginning teachers were anxious about their teaching but the mean total anxiety score was not as high as the mean total anxiety score for students before starting teaching practice. Factor analysis revealed five factors evaluation anxiety, class control anxiety, professional and administrative concerns anxiety, school staff anxiety and teaching requirements anxiety. Factors that caused most anxiety were related to being observed, evaluated and assessed.

Blix, Cruise, Mitchell and Blix (1994) analysed "occupational stress among university teachers," including 400 teachers as a sample from California state university. Results indicated that 2/3rd of the teachers reported that they perceived stress at work at least 50 percent of the time. They also complained burnout, stress related health problem, lowered work productivity, inability to cope with work stress and job change consideration. Research related activity were considered to be more stressful than either teaching or service. A positive perception of ability to manage work stress was negatively
correlated with stress symptoms.

**Dang & Gupta (1994)** examined the effect of work environment, behaviour patterns and gender on various role stressors in 160 lecturers from a medical college or university. Samples were equally divided in terms of Type A or Type B behaviour and gender and completed the Jenkins Activity Survey and Organizational Role Stress Scale. The medical work environment was found to be more stressful than university work, particularly on role overload, role ambiguity and personal inadequacy role stressors. Type A samples perceived more stressful by type B samples. Role erosion was higher in men and role overload was higher in women.

**James and Alan (1994)** conducted a comparative study of work stress - distress of music and mathematics teachers. The sample comprised of 107 randomly selected secondary school teachers with a median age of 33 years working in both public and private schools in New Southwales. Of the sample 61 were women and 46 were men. Six point likert scale, general health questionnaire and maslach burnout inventory were the measuring instruments. Data was analysed with the help of SD, mean, internal consistency coefficients. Of the two teacher groups studied music teachers were generally more
distressed and burnout and negatively affected by both certain work stressors and by attitudes held by others. Not one music teacher thought music the easiest school subject to teach contrasting with 31% of mathematics teachers who rated their subject as the easiest to teach. Mathematics teachers rated themselves more satisfied than music teachers.

Swatantra Devi (1994) find out a significant difference between the job satisfaction of the teachers and their temperamental traits. The Thurston Temperament schedule was administered on a sample of 250 teachers belonging to 25 schools. Statistical techniques used were mean, SD and t-value. The result proved that there was no significant difference between the years of experience of teachers and in-service education in relation to the components of temperamental traits. However there was significant difference between the job satisfaction of the teachers and the temperamental traits.

Boyle, Borg, Falzon and Baglioni (1995) proposes models of the direct sources of teacher stress and statistically tests their goodness of fit using a structural equation modelling approach. The sample consisted of 1074 teachers from 81 state primary schools in the Maltese islands of Malta and Gozo. Teacher stress inventory was
employed on the sample. Statistical techniques used for data analysis were chi-square test, scree test (Cattell, 1978) and Kaiser-Guttman (KG) eigenvalues. It was found that teacher stress was primarily a direct function of workload and student misbehaviour.

**Flett, Hewitt & Hallett (1995)** examined the association between perfectionism and indices of job stress and perceptions of organizational support in 62 teachers. Sample completed the multidimensional perfectionism scale, the teacher stress inventory and a survey of perceived organizational support. Measures of job satisfaction, job expectancy and absenteeism were also obtained. A pervasive positive association was found between socially prescribed perfection and various indices of teacher stress, including the intensity and frequency of professional distress, emotional manifestations and physiological manifestations. A significant association was detected between socially prescribed perfectionism and low job satisfaction. Self oriented and other oriented perfectionism dimensions were not correlated significantly with the measures of teacher stress.

**Peter, Alexander & Michael (1995)** investigated the relationship between discipline policy, student misbehaviour and teacher stress. Data was provided during the evaluation of the whole school approach discipline and student welfare programme by 4,072
teachers from 32 primary, 52 secondary and two special schools. The general strain index and inventory on authoritarian leadership, poor staff relations and student behaviour were the measuring tools. On balance teachers believed that their schools had improved slightly. The programme was effective in bringing about an improvement in teacher stress and discipline policies but it made no difference to the mean levels of student misbehaviour.

Pithers and Fogarty (1995) studied, "occupational stress among vocational teachers". Total sample was of 154 people including vocational teachers and other professionals in commerce and business. Tools employed were occupational stress inventory, the occupational roles questionnaire, personal strain questionnaire, personal resources questionnaire. It has been found that the prevalence of occupational stressors for vocational teachers as compared to a professional group was not as widespread as predicted. Work overload emerged as a significant stressor at the organizational as well as the personal level.

Cockburn (1996) investigated "primary teachers' knowledge and acquisition of stress relieving strategies". Sample included 335 primary teachers. Questionnaire was used as a measuring tool. Results showed that, most of the teachers were positive in their attitudes
towards teaching and were not suffering from extreme stress. On average the respondents were aware of 35 stress reduction strategies. The most effective strategy was the thorough lesson preparation what one about to teach.

Manthei, Gilmore, Tuck and Adair (1996) designed a study "Teachers Stress in Intermediate Schools". Intermediate school teachers from the eight Newzealand schools were surveyed five time over four years. The number of teachers surveyed in five survey was 116, 135, 144, 137 and 120. Seven factors were identified, pupil recalcitrance, poor remuneration, curriculum demands, low professional recognition, poor working environment, community antagonism and time demands. Higher level of stress were related to lower job satisfaction and a reduced commitment to remain in the job in the long term. Absence due to sickness was not found to be correlated with stress. No marked increase in stress among teachers was found over the five survey.

Stella & Purushottam (1996) investigated the relationship between the classroom behaviour of the teachers and their job satisfaction. Modified version of flanders interaction analysis category system and the job satisfaction questionnaire were administered on the sample of 68 teachers selected on the basis of stratified random
sampling technique. Data was analysed with the help of simple correlation. It was found that (i) among the in-service teachers there was significant correlation between teacher behaviour and job satisfaction. (ii) The rural teachers and government school teachers had a lower job satisfaction.

Reddy & Srinivas (1997) investigated the impact of gender and stress on teacher effectiveness. The sample consisted of 120 randomly selected secondary school teachers from two districts of Andhra Pradesh. Stress effectiveness scale and stress questionnaire were employed as measuring tools. Data was analysed with the help of test-retest reliability method, a retest correlation, and t-test. Findings revealed that there were no significant relationship between gender and teacher effectiveness. Also there were no significant relationship between intensity of stress and teacher effectiveness.

Jurado, Gurpegui, Moreno & de Dios (1998) conducted a study on the school setting and teaching experience as risk factors for depressive symptoms in teachers.

A representative sample of 233 teachers working at the primary or secondary grade level in both public and private schools answered an anonymous questionnaire on socio-demographic information and
completed the centre for epidemiologic studies rating scale for depression (CESD). The teachers were classified as depressed when they scored greater than 16 on the CESD 27.5% of the sample were above this cut off score. Logistic regression was used to calculate a multivariate model with the variables of school ownership, grade level and teaching experience. Working in a public school, teaching at the primary level, and longer teaching experience all increased the risk of depressive symptomatology.

Shann (1998) examined the professional satisfaction of teachers in urban middle school. Interviews and questionnaires from 92 teachers in 4 urban middle schools were used to assess the importance and satisfaction they assigned to various aspects of their jobs. Teacher-pupil relationships ranked highest overall in terms of importance and satisfaction. Parent teacher relationships commanded respondent's highest concern. Teachers in the lower achieving schools were more dissatisfied with teacher-teacher relationships and their school's curriculum than those in the higher achieving schools.

Anderson, Levinson, Barker & Kiewra (1999) tried to find out the effects of meditation on teacher perceived occupational stress, state and trait anxiety and burnout. The present study employed a pretest-post-test control group design and used the teachers' stress
inventory, state trait anxiety inventory and the Maslach burnout inventory to assess the effect of a 5-week standardized meditation class on the perceived occupational stress of 91 full time elementary, middle and high school teachers (aged 22-60 years) from sub urban districts in three states. Results revealed that meditation significantly reduces teacher stress. Teachers perceived a reduction in stress using meditation only 2-5 times per week.

de Heus & Diekstra (1999) compared the teachers with other social professions on work stress and burnout symptoms. Burnout among teachers was the focal topic of the study in which a sample of about one thousand teachers was compared with members of other social professions on burnout symptoms and in an attempt to explain the obtained differences in burnout, on work stressor and social support. The original sample consisted of 13,555 individuals who were gainfully employed and were between the ages of 18 and 64 years. Other social professions included mental health professions, physical health professions, nursing professions, domestic and personal care professions and managers. Taken together results for burnout and other measures of strain support the idea that the teaching job carries more psychological and, to a lesser extent more physical symptoms than other special professions. Teachers do burnout more
easily than members of other social professions.

Dussault, Deaudelin, Royer & Loiselle (1999) investigated the relationship between professional isolation of teachers and their occupational stress. A systematic random sample of 1,110 teachers in Quebec were administered French Canadian versions of the UCLA loneliness scale and teacher stress inventory. Analysis gave, a positive and significant correlation between isolation and occupation stress.

Martin, Linfoot & Stephenson (1999) studied how teachers respond to concerns about misbehaviour in their classroom. 130 Kindergarten teachers were selected for the study. Results indicate that concern about their students misbehaviour was negatively associated with teachers' confidence. Concern about misbehaviour was positively associated with the use of non-physical punishment and referral of the students to other school personnel.

Pithers and Soden (1999) conducted a study to examine the occupational stress, strain and personal coping resources of a comparative group of Scottish and Australian vocational teachers. The sample comprised of 332 teachers from vocational and further education institutes of both nations. A standardized test and occupational stress inventory were used as measuring tools. Results
showed that similarities of stress and strain between the two national group far outweighed the difference. Stress level was found to be at average for both the groups. Role overload appeared to be a strong source of occupational stress for both groups of teachers.

Viswesvaran, Sanchez & Fisher (1999) tried to find out the role of social support in the process of work stress; it was found that social support had a threefold effect on work stressor-strain relations. Social support reduced the strains experienced, social support mitigated perceived stressors, and social support moderated the stressor-strain relationship.

It is quite evident from the above discussion that purely on frustration of teachers much work has yet to be done. The investigations done so far quite understandably called for further explorations.

2.2 STUDIES ON TEACHERS' CREATIVITY

Yamamoto (1963) investigated the relationships between creative thinking abilities of teachers and achievement and adjustment of pupils. The subjects of this study were 19 5th grade teachers and their pupils of an independent school system in a middle to upper middle class suburb of Minneapolis, Minnesota. The tools used for data collection
were Test of Creative Thinking, a Personality Inventory, an Intelligence Test, and an Achievement Battery. Data was analysed with the help of mean, SD, correlation of coefficient. The 19 teachers were dichotomized into the high creative group (10) and the low creative group (9) and comparisons were made between them. It was found that: (i) the high creative teachers show a significantly stronger theoretical orientation than the low creative teachers. (ii) The two groups did not show any significant difference in their classroom behaviour. (iii) There was no significant difference between these two groups in background factors such as sex, marital status, age, teaching experience and educational attainment.

Gurbakshlal (1974) conducted a study of the relationship between creative thinking and vocational anxiety and their effect on success in teaching. The sample consisted of 300 teacher trainees studying in three colleges of the Punjab. Vocational Anxiety Scale, The Dutt Personality Inventory and the Test of Creative Thinking were used as measuring tools. It was found that men and women teacher trainees did not differ significantly in vocational anxiety whereas they differed in general anxiety. High vocational anxiety was inversely related to teaching success but high general anxiety was not associated with teaching success. The teacher trainees in high
and low creative thinking groups did not differ significantly from each other in vocational anxiety they differ in general anxiety.

Mathew (1976) carried out the study to investigate the classroom behaviour of teachers and its relationship with their creativity and self concept. 245 teachers were selected through the stratified random sampling technique and were observed in teaching situations in secondary schools of Baroda and Mewattupazha. The Flanders Interaction Analysis Category System, The Deo's Personality Word List, The Creative Teacher Personality Scale, The Creative Teaching Process Scale, The Personal Information Proforma were employed as measuring tools. The study revealed that (i) there was no significant relationship between creative teacher personality and indirect/direct behaviour of teachers (ii) There was no significant difference between male and female teachers in their direct/indirect behaviour.

Jayaswal (1977) conducted a study of creativity in relation to anxiety in male and female teachers. The sample consisted of 234 male and 270 female teacher trainees from five teacher training institutions of Varanasi by using the incidental purposive sampling technique. Tools used for data collection were Hindi adaptation of the Torrance Test of Creative Thinking (Verbal) Dutt's Personality
Inventory. Statistical techniques used for data analysis were analysis of variance, t-test, product moment coefficient of correlation, eta coefficients and partial correlation of coefficient. Results revealed that anxiety on the whole was negatively correlated with creativity, there was no significant relationship between anxiety and creativity in the female sample. Anxiety had negative and significant correlation with creativity in the male sample. The high and the low creative groups did not differ on the anxiety score.

Singh (1977) investigated into the psychological and sociological background of creative and non creative student teachers. The sample consisted of 442 B.Ed. students in the city of Lucknow. The tools employed were Torrance Test of Creative Thinking, The Ojha Study of Values, The California Test of Personality, The Minnesota Teacher Attitude Inventory and the information form designed to collect data about sociological background. The data was analysed with the help of t-test. It was found that high creativity among student teachers tended to go with higher economic value, better personality adjustment, better family background and urban living. Low creativity on the other hand seemed to be associated with higher theoretical value, poorer adjustment, poor family background and rural living.
Singh (1978) investigated the relationship between creativity in teachers and their self concept, attitude towards teaching and classroom verbal interaction. The sample consisted of 100 trained teachers in service working in higher secondary schools of Delhi. Tools employed were Mehdi's Verbal Test of Creative Thinking, Personality Word List, Minnesota Teacher Attitude Inventory, and Flanders Interaction Analysis category System. Data was analysed with the help of product moment correlation, analysis of variance and t-test. A significant positive relationship was found between the verbal creativity in teachers and self concept. There was no significant relationship between the verbal creativity in teachers and their attitude towards teaching. Male and female teachers did not differ significantly in their verbal creativity.

Ls' Verne (1985) compared the high, medium, and low creative student teachers on three dimensions of creativity and total creativity in terms of certain personality components, sex, teaching competence and achievement levels. 210 B.Ed. students randomly selected from four educational institutions in Lucknow were taken as sample. Torrance Test of Creative Thinking, The Multivariate Personality Inventory and 16 PF, a Teacher Effectiveness Scale were used as measuring tools. (i) The F ratios for the effect of fluency were
significant for dominance, reserved vs. outgoing, humble vs. assertive. (ii) The F ratios for the effect of flexibility were significant for ego ideal, dominance, sober vs. happy go lucky. (iii) The F ratios for the effect of originality were significant for the self confidence, humble vs. assertive. (iv) Personality factors distinguishing the low creativity group from high creativity group were self confidence, sober vs. happy go lucky. (v) Personality factors distinguishing the medium total creativity group from the high total creativity group were pessimism, empathy, conservatism and experimenting.

Fryer & Collings (1991) conducted a study on teachers views about creativity. 1,028 teachers and further education lecturers from England, Wales and Island completed a questionnaire on views of creativity and its development together with teaching style preferences. Sociographical information and teachers' perceptions of their situations were collected. A sub sample of 31 took part in follow up interviews. Creativity was perceived mainly in terms of imagination, originality and self expression. Only half of the sample regarded divergence as synonymous with creativity. Most thought creativity could be developed but almost three quarters thought it was a rare gift. The distinguishing feature of teachers highly oriented to creativity was a preference for pupil centred learning.
Thus creativity being so vitally important factor affecting quite positively the teachers' performance needs to be included for exploring its predictive ability with reference to the frustration of teachers also.

2.3 STUDIES ON TEACHERS' INTELLIGENCE

Singh (1970) conducted a study on the teacher trainee's performance in relation to certain intellectual abilities. The sample comprised 62 trainees with rural background and 82 with urban background from a teachers' college in the district of Ludhiana. The tools employed were Cattell's 16 PF Inventory, The Raven's Progressive Matrices, The Maudsley Personality Inventory, The Indian adaptation of Allport A.S. Reaction Study, The Allport Vernon-Lindzey Study of Values, and a scale for measuring attitude towards teaching profession prepared by the investigator. The results of the study showed that the significant predictors of performance in theory papers were two indices of intelligence, and two indices of early academic achievement. The regression equation analysis showed that the improvement in forecasting efficiency in theory papers was much more when the prediction was done on the basis of the combination of intellectual and non intellectual factors than when the prediction done by taking these factors separately.
Grewal (1976) carried out a study on intellectual and personality correlates of teacher effectiveness at the higher secondary school stage. The Bell's Adjustment Inventory, The Bernreuter's Personality Inventory, The Raven's Standard Progressive Matrices and the Jalota's and Tondon Group Test of Mental Ability, The Attitude Scale, Interest Inventory and Rating Scales were employed on the sample of 520 trained graduate teachers. Data was analysed with the help of mean, median, mode, SD, skewness, product moment correlation, factor analysis and analysis of variance.

The study revealed that the measures of intelligence and personality traits clustered in specific constellations with the criterion measures of teacher effectiveness. The main predictors of teacher effectiveness were home, health, social, emotional and total adjustments and verbal and non verbal intelligence.

Jain (1977) attempted to find out the characteristic influences of creativity, intelligence and areas of interest upon proficiency in teaching. A multistage random sample of 160 subjects was drawn. They belonged to different levels of creativity, intelligence and interest. Tools employed were creativity test by N.S. Chauhan and G.P. Tiwari, General Mental Ability Test by M.C. Joshi, Chatterjee's Non Language Preference Record, and The Teacher Efficiency Scale.
Data were analysed with the help of factorial design analysis of variance of equal cell size. It was found that intelligence, creativity and interest were interrelated in promotion of proficiency in teaching.

**Narula (1979)** conducted a study to measure achievement motivation, personal preferences, perception, anxiety, risk taking behaviours and other correlates in relation to their intelligence, socio-economic status and performance. The sample comprised of 608 men and women students of education studying in six government teachers colleges of Orissa. Data was collected with the help of Thematic Apperception Test, Edwards Personal Preference Scale, Raven's Standard Progressive Matrices, Socio-Economic Status Scale and a few questionnaires. The statistical techniques used for data analysis were descriptive statistics, product moment correlation and multiple regression analysis. It was found that (i) males and females differed as regards personality needs (ii) male teachers showed more anxiety than female teachers (iii) Intelligence and perceptions did not show any relationship and the same was the case with intelligence and performance.

**Sharma (1984)** conducted a study to find out the aptitude, intellectual level, and morality of prospective teachers. The sample consisted of 412 student teachers who were studying in ten teachers
colleges of three universities of Rajasthan. The Teaching Aptitude Test, Group Mental Ability Test and self-made teachers' morality test were used for data collection. It was found that about 75% of the student teachers were below average in aptitude and intellectual ability. A positive correlation was found between teaching aptitude, intellectual level and morality of prospective teachers.

Mahapatra (1987) investigated the relation of intelligence, attitude and interest towards success in teaching. 420 B.Ed. students were applied Patel's Teacher Efficiency Inventory, Teaching Success Scale prepared by the investigator, Cattell's Culture Fair Intelligence Test Scale-3, Ahluwalia's Teacher Attitude Inventory, and Sonal's Social Service Scale of the Vocational Interest Inventory. The critical ratio and multiple coefficients of correlation were used for drawing conclusions. The results of the study revealed that the predictive value of intelligence and attitude towards teaching success was 20 percent, attitude and interest towards teaching success was 11 percent, and intelligence and interest towards teaching success was 19 percent. Among all the three predictors intelligence was considered to be the most influential predictor.

As such the present investigation has one more focal point, intelligence which is to be studied with reference to the teachers'
frustration.

2.4 STUDIES ON TEACHERS' PERSONALITY

Quraishi (1972) studied the relationship between personality, attitudes and classroom behaviour of teachers. The sample consisted of 200 teachers drawn from twenty one secondary schools. Flander's Interaction Analysis, Category System, Thurstone Temperament Schedule and attitude scales constructed by Wandt, Glassey and Patel were the measuring tools. Data was analysed with the help of Pearson's Product Moment correlation technique. The result highlighted that (i) teachers verbal behaviour in classroom was related in a small measure to their personality and attitudes, (ii) sociable trait was significantly related to student initiation, (iii) direct and indirect teachers did not differ significantly from each other on the seven personality traits, implying that personality does not affect teacher behaviour.

Saran (1975) attempted to find out the teachers' attitude towards teaching profession and certain personality variables as related to their level of education and amount of experience. A group of 1000 teachers (510 male and 490 female) from four western districts of U.P. was selected as a sample. Tools employed were Chatterjee's
Non-Language Preference Record, Vyaktitva Parakh Prashnavali, and the Edward Personal Preference Schedule. The data was analysed with the help of correlations. It was found that (i) the attitude of teachers towards the teaching profession was positive (ii) attitude towards teaching profession was not positively related to experience in the teaching profession as well as age. (iii) Level of education was positively related to degree of attitude towards the teaching profession. (iv) Teaching experience and adjustment were not significantly related.

Gupta (1976) carried out a study on prediction of teacher effectiveness through personality test. The sample consisted of 300 male teachers, 25 principals and 350 students. Teachers' effectiveness was measured by using a teachers' rating scale, a pupils rating scale, a teacher aptitude inventory a Jai Prakash's Teaching Aptitude Test, Hindi version (by Kapoor) of Cattell's 16PF Questionnaire. The study revealed that (i) the high effective teachers differed significantly from the general population with respect to nine personality factors out of sixteen. (ii) In comparison to average effective teachers high effective teachers were significantly more intelligent, emotionally stable, assertive and higher self concept, controlled and less tense and frustrated (iii) the average effective teachers in comparison to low
effective teachers were more outgoing, serjeant, happy-go-lucky, less imaginative and more practical.

Singh (1976) investigated the relationship between some personality variables and teaching effectiveness. The sample consisted of ten superior, ten average, and ten inferior student teachers out of 164 student teachers of Tilakdhari Teachers' Training College, Jaunpur, U.P. Tools employed were Thematic Apperception Test, a rating scale to measure the teaching stimulus of the teachers, The Sinha's Anxiety Scale, The Sinha's Adjustment Inventory. Data was analysed with the help of analysis of variance. It was found that the needs of superior, average and inferior teachers were distinct from each other, (i) the superior teachers had more strength of imagination while inferior teachers were weak in their imagination, (ii) the average teachers were more sensitive while inferior teachers were less sensitive (iii) the superior teachers used more literary language than average and inferior teachers.

Gupta (1977) attempted to find out the personality characteristics, adjustment level, academic achievement and professional attitude of successful and less successful teachers. A group of 400 teachers (200 male and 200 female) selected from 67
schools of four districts in Punjab. Tools employed were The Sixteen Personality Factor Inventory, The Bell's Adjustment Inventory, The Minnesota Teaching Aptitude Scale and a tool to measure teaching success prepared by the investigator. It was found that success in teaching was significantly related to personality factors A, B, C, F, G, H, I, L, N, O, Q3 and Q4 and adjustment in various fields of life like home, health, social, emotional and professional attitude. But it had no significant relationship with academic achievement. It was also found that there were differences in personality characteristics, adjustment and attitudes towards teaching of successful and less successful teachers.

Singh (1978) conducted a study to find out the relationship of teachers' personality, success in teaching and impact on student behaviour. The sample consisted of 135 permanent male teachers and 2839 boys of class IX. Teaching Success Rating Scale, Information Schedule, Interview Schedule, Critical Incidents Blank, Behaviour Change Questionnaire, Allport Vernon-Lindzey Study of Values, 16 PF, Incomplete Sentences Blank, and Rorschach Inkblot Test. Statistical techniques used for data analysis were SD, mean, median, t-test and chi-square test. The result indicated that (i) theoretical and social values were positively related to teaching
success but the economic and aesthetic values were negatively related, (ii) the highly successful teachers were assertive, venturesome, controlled, emotionally stable, better adjusted, positive attitude towards family, a sense of identification with the people, develop desirable attitude in their students. The unsuccessful teachers contributed to developing aversion to the subject, creating misunderstanding and fostering undesirable attitudes in their students.

Mutha (1980) attempted to identify the factors attitudinal, motivational and personality which differentiated effective teachers from ineffective ones. The sample consisted of 300 secondary school teachers (180 male and 120 female) randomly drawn from the secondary schools of Jodhpur. Teachers were administered the Raven's Progressive Matrices, Sinha's Self Analysis Form, Eysenck - Maudsley Personality Inventory, Shrivastava's Teaching Aptitude Test, Bhatnagar's Value Scale, Singh's Marital Adjustment Inventory, Sharma's Self Concept Inventory and Allport's Ascendence submission scale. Data was analysed with the help of percentage, chi-square test, t-test, factor analysis and multiple correlation. It was found that (i) self, professional training, nature of schooling and income level were significantly associated with the teachers' effectiveness, (ii) the effective teachers had significantly higher score
on intelligence, (iii) the effective teachers have significantly higher scores on anxiety, teaching aptitude, neuroticism, theoretical value, job satisfaction than the ineffective teachers.

Porwal (1980) measured the personality traits of 100 satisfied and 100 dissatisfied teachers and impact of variables like age, sex, marital status, length of service, scale of pay, location of the working place, type of management and extent of employment of their job satisfaction. He used a job satisfaction questionnaire and 16 PF Questionnaire. He found that personality characteristics of satisfied teachers were reserved, detached, critical, cool, emotionally mature, stable, humble, mild, accommodating, shy, practical, careful and unfrustrated and personality characteristics of dissatisfied teachers were warm hearted, easy going, emotionally less stable, independent, stubborn, socially bold, imaginative, careless and frustrated. Sex produce differences in the level of job satisfaction. The female unmarried teachers were found to be more satisfied than the teachers of both sexes. A negative relationship existed between the length of service and level of job satisfaction. The teachers of government schools were more satisfied than those in privately managed schools.

Thakur (1980) investigated the effects of age, sex and experience on teaching behaviour and differences in the personality
characteristics of teachers showing direct and indirect verbal behaviour. 200 teachers were observed in their classroom the students taught were from class VIII to XI. Personality characteristics were measured on 16 PF test. The constellation of traits of teachers was found out by using factor analysis. It was found that (i) the two groups of teachers (direct/indirect) differed significantly on nine of the interactional variables, (ii) there was no significant difference in the teaching behaviour of the direct/indirect teachers due to the variables of age, sex and experience, (iii) four personality factors namely C, O, Q3 and Q4 differentiated the direct and indirect teachers significantly.

Kumari (1981) studied the personality needs, moral judgement and value patterns of secondary school teachers. The sample was selected randomly. The obtained result highlighted that (i) male and female teachers expressed high preference for the theoretical value and affiliation need. Teachers of both the sexes expressed keen moral sense (ii) urban male teachers were more moral than rural male teachers (iii) rural female teachers had higher sense of morality than urban female teachers.
Raina (1981) compared the personality, attitude to teaching and creativity potential of pre service and in service teachers. The sample consisted of 180 in service teachers and 180 pre service teachers specializing in the teaching of science, arts and commerce. Measuring tools were 16 PF test adapted and standardized by Kapoor and Mehrotra, Minnesota Teacher Attitude Inventory and Something about Myself a measure of creative potential. Data was analysed with the help of analysis of variance, t-test, factor analysis and rank order correlation. The study revealed that (i) the rank order correlation between the science and arts in-service teachers was not significant whereas the same between the science and commerce and between arts and commerce teachers was significant. (ii) The in-service teachers were highest on factor H, C, E, A, F. They were lowest on factors B, L, Q, and O. (iii) The pre service teachers differed on factors A, B, E, F, I, N, Q, Q, and gave top five ranks to factors H, E, C, O, Q, and bottom five B, M, L, A and N.

Sharma (1981) conducted a study to find out the differences with regard to self concepts, personality, adjustment and values of college, secondary school and primary school teachers, urban and rural teachers and male and female teachers. Bhatnagar's Self Concept Inventory, Bhatnagar's Allport Vernon Value Scale (Hindi adaptation)
and a self constructed adjustment inventory entitled A Study of Teachers' Problems were employed on a sample of 702 teachers of various categories drawn from the total population of teachers of Agra district. The stratified random and cluster sampling procedure was adopted. It was found that (i) primary teachers were better achievers than the college teachers. Differences between primary and secondary school teachers were not significant. (ii) Difference on self concepts about achievement of the rural and urban teachers were not significant. (iii) Difference on achievement concept of the male and female teachers were significant. They do not differ with regard to the self confidence dimension of the self concept.

Bhagoliwal (1982) conducted a study to discriminate between the personality characteristics of effective and less effective teachers. The sample consisted of 264 (120 male and 144 female) drawn from twelve higher secondary schools of New Delhi. Teacher Personality Characteristics Inventory, Teachers Rating Scale, student's performance and student ranking proforma for subject teachers were used. The chi-square, and Man Whitney U-test were used for data analysis. It was found that (i) more effective teachers were by and large characterized by their superiority over the less effective teachers with respect to their overall intellectual level (ii) more effective
teachers were more creative, their inner control was better than less effective ones.

**Hossain (1983)** compared the personality differentials of secondary school teachers and the teacher trainees of Bangladesh. The sample consisted of 366 subjects of Bangladesh including 188 secondary school teachers and 178 teacher trainees. Along with this 50 student teachers from the college of education Chandigarh for cross cultural study. The Thorndike (1966) Dimensions of Temperament, The Emotional Characteristics Inventory developed by the investigator, Raven's (1962) Advanced Progressive Matrices Sets I and II were employed as measuring tools. Data was analysed with the help of inter correlation, factor analysis, and analysis of variance. The result revealed that the significant differences were found only in the case of certain variables viz. sociable, ascendant, cheerful, happiness, anger, jealousy and intelligence.

**Malik (1984)** compared the personality factors and learning environments of successful and unsuccessful science teachers. The sample consisted of 205 science teachers and 3450 science students from 72 higher secondary schools of Rajasthan. Measuring tools were Science Teaching Success Rating Scale constructed by the investigator, a bio-data form and a Hindi version of Learning
Environment Inventory were adopted. It was found that (i) successful science teachers had clarity of goals and their students found less difficulty with class work than the students of unsuccessful science teachers, (ii) teaching success was positively correlated with dimensions of formality, goal, direction, satisfaction, democracy and diversity (iii) the classroom atmosphere of unsuccessful science teachers was full of tension, quarrelling among students, confusion in class activities and there was favouritism, (iv) some significant correlation either positive or negative was found between the class learning environment and personality factors.

Mcintyre (1984) conducted a study to find out the relationship between one personality variable, locus of control and experienced burnout. The sample consisted of 684 all resource room and self contained room special education teachers from 28 public school districts in Connecticut and Massachusetts. Maslach Burnout Inventory, The Emotional Exhaustion Sub Scale, Personal Accomplishment Sub Scale, Adult Nowicki Strick Land Internal-External Control Scale were employed as measuring tools. Data was analysed with the help of Pearson Product Moment simple correlation technique. Result revealed that significant positive correlations were found between locus of control scores and the frequency of feelings
of emotional exhaustion, and intensity of feelings of depersonalisation.

A negative correlation was found between locus of control and frequency of feeling of personal accomplishment.

Mishra (1984) investigated personality traits of original teachers. They were found to be emotionally mature, stable, realistic about life, assertive, self assured, austers, dependent minded, hostile, extrapunitive, authoritarian, cheerful, active, talkative, carefree, impulsive, dominated by sense of duty, plan, responsible, moralistic, sociable, bold ready to try new things, spontaneous, day dreaming, artistic and doubtful.

Shukla (1984) compared the personality characteristics of innovative and non-innovative teachers and their pupil's creativity. The sample consisted of 650 primary school teachers (326 males and 324 females) and 600 pupils taught by these teachers. Tools employed were The Sociometric Questionnaire, Principal's Rating Scale and Self-Rating Scale, 16 PF Questionnaire and Non-Verbal Test of Creative Thinking by Baqer Mehdi. Data was analysed with the help of test-retest and split half reliability and critical ratios. It was found that (i) urban teachers were more innovative than rural teachers (ii) Sex differences were not observed as regards
innovativeness of teachers (iii) Non-innovative teachers were found to be reserved, detached critical, cool, less intelligent, dull, frustrated and restless, (iv) innovative teachers were found to be emotionally stable, calm and mature, enthusiastic, venturesome, socially bold, lively etc. (v) The pupils of innovative teachers were found to be higher on creative thinking than the pupils of non-innovative teachers.

Som (1984) studied the teachers' personality pattern and their attitudes towards teaching and related areas. The sample consisted of 75 in-service male teachers, 65 in-service female teachers, 50 fresher male students and 60 fresher female students. Modified version of Eysenck's and Wilson's Personality Inventory was employed as a measuring tool. Data was analysed with the help of correlation factor analysis, & regression analysis. The result highlighted that (i) the secondary teachers were neither introvert nor extrovert, (ii) male teachers were found to be more initiating, expressive, careful, introspective, mentally exertive and concentrated than female teachers, (iii) teachers were normal in respect of teacher attitudes towards pupils, (iv) teaching attitude as well as the attitude towards the profession correlated significantly with patience, initiative, carefulness, stoicism, extrospection and responsibility.
Wangoo (1984) investigated the teacher personality correlates and scholastic competence as related to teacher effectiveness. The sample consisted of 500 teachers drawn from higher secondary schools of Srinagar district. Data was collected with the help of Cattell's 16 PF Questionnaire (adults Form A) Raven's Advanced Progressive Matrices, Principal's Comment Check List, and Students Comment Check List. 't' test was used as a statistical technique.

It was found that personality, adjustment, democratic leadership, a high degree of intelligence, and emotional control were the main characteristics that went with teacher effectiveness.

Khanna (1985) studied the personality patterns of successful (effective) high school teachers of Aligarh District. 500 teachers were taken for the study. Tools employed were R.C. Deva's Teacher Rating Scale, Student's Perception of their Teacher's Scale by Sorenson and the 16 PF test by Cattell. Data was analysed with the help of mean, SD, critical ratio and coefficient of contingency. It was found that (i) successful teachers had traits which were positively helpful for the mental health of the individual whereas unsuccessful teachers had traits which tended to lead the person to a kind of maladjustment. (ii) There was a close relationship between the level of effectiveness
of teachers and the level of achievement of their students. (iii) Successful teachers were very helpful in raising the level of achievement of the students and also their overall educational standard.

Khan (1987) evaluated and compared the personality characteristics of physical education teachers and general education teachers. 300 randomly chosen teachers from selected districts of Jammu and Kashmir state were taken as a sample. Tools employed were Bell's Adjustment Inventory (Adult Form), Kundu's Neurotic Personality Inventory, a Medical Fitness Scale constructed by the researcher and the JCR Test. Data was analysed with the help of factorial design, t-test and F-test. On the whole physical education teachers were found significantly better adjusted, socially, emotionally, occupationally and also with respect to health as well as home adjustment than the general education teachers.

Schuttenberg, O'Dell & Kaczala (1991) investigated the relationship of sex, length of service, vocational personality types and sex role, self perceptions to job satisfaction levels in 288 school teachers, school counsellors and building level administrators using the Self-Directed Search: A Guide to Educational and Vocational Planning, the Benn Sex Role Inventory and a survey of current
professional position, 60% of the sample were female. While length of service was not significantly related to the assumption of a particular vocational personality type, there was a positive relationship between androgynous sex role self perceptions and high job satisfaction for female and male sample.

Fontana & Abousserie (1993) conducted a study to find out the stress levels, gender and personality factors in teachers. The Professional Life Stress Scale was used to assess teachers' stress levels and the Eysenck Personality Questionnaire was used to define their personality dimensions. The majority were experiencing moderate level of stress, and 23.2% serious levels. Correlation analysis revealed positive correlation between stress psychoticism. A negative correlation emerged between stress and extroversion, and a positive correlation between stress and neuroticism. Extroversion and neuroticism were the best predictors of stress.

Muthian (1994) conducted a study to find out whether the locality of school and type of school influence on the personality of headmasters. Random sampling technique was used to select 30 headmasters from the group of 90 headmasters of the higher secondary schools in Tirunelveli district. Problem solving profile was
adopted as a measuring tool and data was analysed with the help of chi-square test. The study revealed that nature of school, type of school seem to make no significant difference among the headmasters of higher secondary schools but the locality of the school (rural and urban) influences the personality of the headmaster of higher secondary schools.

Thus the personality characteristics of teachers having been not conclusively and exhaustively explored still pose a challenge to the research scholars for identifying the relationships with the teachers' performance in different domains of behaviour.

The next chapter deals with the method and procedure of the present study in detail.
CHAPTER - III

METHOD AND PROCEDURE
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In a research study a very important stage is to decide about the approach, the tools and the procedure to be followed. The methodology followed in conducting the study plays a prominent part in determining the dependability and usefulness of the findings. The methodology followed in the present study has been marked out in accordance with its objectives. As indicated in the previous chapter the present study endeavours to investigate frustration among teachers in relation to creativity and certain personality factors. As such the study requires suitable measuring tools and appropriate statistical procedures.

In this chapter a description of the sample, its size, research tools, administration and collection of data and statistical techniques used by the investigator for analysing data, has been presented.

3.1 SAMPLE

It is not feasible to investigate into any phenomenon on the entire population. Thus the representative sample of the population has to be selected in order to reduce expenditure and save time. Therefore the present study was conducted in 8 schools on 300 teachers.
(including 133 male and 167 female) working in government and private secondary schools of Aligarh city, keeping in view the objectives, the time and resources available.

The selection of the schools was made on the following criteria.

(i) The cooperation of the school authorities and teachers of different schools was easily sought at the local end.

(ii) The administration of different tests was also convenient at local level.

(iii) Both private and government schools were available within the city.

(iv) To ensure homogeneity of the sample with regard to socio-cultural background the investigation was confined to the schools lying in the same region.

3.2 TOOLS OF THE STUDY

The relevance and reliability of any research work depends on appropriateness, reliability and validity of the tools and measures employed in the study. Thus to obtain the meaningful results of any research work, the tools applied should be valid and reliable as well as must suit to the corresponding age and ability levels of the sample
involved in the research work.

Just to meet the need of aims and objectives of the present work, the following tools and measures were adopted.

(i) For measuring frustration the present investigator used N.S. Chauhan's & G. Tiwari's Frustration Test.

(ii) Hindi version of Baqer Mehdi's Verbal Test of Creative Thinking was adopted for measuring creativity.

(iii) Culture Fair Test of Intelligence developed by R.B. Cattell and A.K.S. Cattell was used by the investigator to measure intelligence.

(iv) For studying the personality characteristics of teachers in the present work the investigator employed R.B. Cattell's Sixteen Personality Factor Questionnaire (Form A) covering sixteen personality dimensions (16 PF).

3.21 MEASURE OF FRUSTRATION

Frustration is the paramount variable involved in this study for which a valid and reliable tool of assessment was needed. In this study the Nairashya Maapa (Frustration Test) published by Agra Psychological Research Cell was used. The said test was developed
and standardized by Dr. N.S. Chauhan and Dr. G. Tiwari. This test is in the form of a scale which can be used as an individual and as a group test. The scale consists of 40 items each with six alternative response categories in a hierarchy from extreme occurrence of a mode of frustration to no occurrence at all. These categories are: always, very often, quite often, sometimes, rarely and not at all. The respondents are required to place a tick mark against the best answer of their choice within the parentheses provided for the purpose. Each mode of frustration i.e. regression, fixation, resignation and aggression is represented by 10 items each.

**TABLE - 3.1**

DETAILS OF ITEMS FOR EACH MODE OF FRUSTRATION

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<tr>
<th>S.No.</th>
<th>MODES OF FRUSTRATION</th>
<th>ITEM NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>REGRESSION</td>
<td>1 5 9 13 17 21 25 29 33 37</td>
</tr>
<tr>
<td>2.</td>
<td>FIXATION</td>
<td>2 6 10 14 18 22 26 30 34 38</td>
</tr>
<tr>
<td>3.</td>
<td>RESIGNATION</td>
<td>3 7 11 15 19 23 27 31 35 39</td>
</tr>
<tr>
<td>4.</td>
<td>AGGRESSION</td>
<td>4 8 12 16 20 24 28 32 36 40</td>
</tr>
</tbody>
</table>
Operationally defined, all the items of the scale are matters of behaviour in daily life. They are immensely meaningful, interesting and simple. There is no obscurity or complexity in them.

**SCORING**

The scoring was done according to the instructions provided in the respective manual. Six alternative response categories in the frustration test were given marks from 5 to 0, starting from the highest extreme of the occurrence of the mode of frustration to the lowest i.e: no occurrence of that mode of frustration.

**TABLE - 3.2**

<table>
<thead>
<tr>
<th>ALWAYS</th>
<th>VERY OFTEN</th>
<th>QUITE OFTEN</th>
<th>SOMETIMES</th>
<th>RARELY</th>
<th>NOT AT ALL</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

The scoring was done separately for each mode of frustration.

**RELIABILITY OF THE SCALE**

The test-retest reliability for the scale, on a sample of 55 adults with a test-retest gap of one month has been found as under.
TABLE - 3.3

<table>
<thead>
<tr>
<th>S.No.</th>
<th>FRUSTRATION MODES</th>
<th>RELIABILITY COEFFICIENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>REGRESSION</td>
<td>0.78</td>
</tr>
<tr>
<td>2.</td>
<td>FIXATION</td>
<td>0.92</td>
</tr>
<tr>
<td>3.</td>
<td>RESIGNATION</td>
<td>0.85</td>
</tr>
<tr>
<td>4.</td>
<td>AGGRESSION</td>
<td>0.87</td>
</tr>
<tr>
<td>5.</td>
<td>AS A WHOLE</td>
<td>0.88</td>
</tr>
</tbody>
</table>

3.22 MEASURE OF CREATIVITY

The present investigator employed Hindi version of Baqer Mehdi's Verbal Test of Creative Thinking. This test battery is meant to identify creative talent at all stages of education except for pre-primary and primary. The test is based on the Guilford's concept of divergent thinking ability. The divergent thinking abilities included are fluency, flexibility and originality.

The whole test of verbal creativity consists of the following sub-tests, namely consequences test, unusual uses test, similarity test and product improvement test.

(i) CONSEQUENCES TEST:

It consists of three hypothetical situations.
(a) What would happen if man could fly like birds?

(b) What would happen if our schools had wheels?

(c) What would happen if man does not have any need for food?

The time allowed for three problems was four minutes each.

(ii) UNUSUAL USES TEST:

In this test the names of three common objects were presented to the subjects - a piece of stone, a wooden stick, and water and the subjects were asked to write as many novel, interesting and unusual uses of these objects.

The time allowed for the three tasks was five minutes each.

(iii) NEW RELATIONSHIP TEST:

In this test the subjects were presented three pairs of words apparently different tree and house, chair and ladder, air and water. Subjects were asked to think and write as many novel relationship as possible between two objects of each pair in the space provided. The test provides an opportunity for the free play of imagination and originality.

The time allowed for each pair of words was five minutes each.
(iv) **PRODUCT IMPROVEMENT TEST**:

In this test, the subjects were asked to think of a simple wooden toy of a horse and suggest addition of new things to it to make it more interesting for the children to play.

The time allowed was six minutes.

The total time required for administering the test is 48 minutes in addition to the time necessary for giving instructions. The test covers three factors of creativity viz. fluency, flexibility and originality.

**RELIABILITY OF THE TEST**:

The test-retest reliabilities of the factor scores and also the total scores were obtained on a small sample (N = 31).

**TABLE - 3.4**

TEST-RETEST RELIABILITIES OF FACTOR SCORES AND THE TOTAL CREATIVITY SCORES N = 31.

<table>
<thead>
<tr>
<th>FLUENCY</th>
<th>FLEXIBILITY</th>
<th>ORIGINALITY</th>
<th>TOTAL CREATIVITY SCORE</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.945</td>
<td>0.921</td>
<td>0.896</td>
<td>0.959</td>
</tr>
</tbody>
</table>

As can be seen from table 3.4 both the factor scores and the total creativity score reliabilities were considerably high ranging from
0.896 to 0.959. These values are highly satisfactory. The reliability of the total creativity score which come out to be 0.959 is again quite high. Inter scorer reliabilities for the factor scores in one study were found to range from 0.653 to 0.981.

**VALIDITY OF THE TEST**

The validity coefficients against the teacher rating for each factor are given in the following table.

**TABLE - 3.5**

<table>
<thead>
<tr>
<th>FLUENCY</th>
<th>FLEXIBILITY</th>
<th>ORIGINALITY</th>
<th>TOTAL CREATIVITY SCORE</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.40</td>
<td>0.32</td>
<td>0.34</td>
<td>0.39</td>
</tr>
</tbody>
</table>

All correlations are significant beyond 0.01 level.

**SCORING**

**SCORING FOR FLUENCY**:

Fluency was represented by the number of relevant and unrepeated ideas which the subject produces. In scoring for fluency, the scorer had gone through the responses to the items in question
carefully and strike off those which were irrelevant or have been repeated. She then counted the remaining number of responses and entered this number as the fluency score for the item in the scoring sheet.

**SCORING FOR FLEXIBILITY:**

For scoring flexibility, the scorer first acquainted herself with the categories of responses given for each item in the scoring guide. For convenience sake, she noted in bracket against each response, the alphabet serial of the category to which it belongs. For those responses which were not mentioned in the scoring guide the scorer herself determined the category to which it seems to belong. If the response belonged to entirely new category which was not considered in the scoring guide, the scorer gave it a new alphabet serial, and noted it in bracket against the response in question. After she had gone through all the responses of a given item, she saw how many different categories have been used by the subject. This was determined on the basis of the number of different alphabet serial used. If more than one responses were given by the subject and they belonged to one category or alphabet then only one mark was given to that response.

The flexibility score will be the total number of different alphabet
serial used. Thus out of eight responses given by the subject to an item, two have been given under category A, three have been given under category B, and one has been given under category C, and two have been given under category D, then the flexibility score for this item will be four.

SCORING FOR ORIGINALITY

Originality scoring was done on the basis of statistical uncommonness of responses. The more uncommon the response, the higher the originality weight. The weights for originality scoring were determined on the basis of following scheme. If the response had been given by 0.1% to 0.99% of the subjects, then the responses got an originality weight of 5, if a response had been given by 1% to 1.99% of the subjects then the response got an originality weight of 4; if a response had been given by 2% to 2.99% of the subjects then the response got an originality weight of 3; if a response had been given by 3% to 3.99% of the subjects then the response got an originality weight of 2; and if response had been given by 4% to 4.99% of the subjects then the response got an originality weight of 1. Response given by 5% or more of the subjects got an originality weight of zero.
3.23 MEASURE OF INTELLIGENCE

For measuring intelligence 'Culture Fair Test of General Ability' which was constructed by R.B. Cattell and A.K.S. Cattell was employed (Test of 'g' Culture Fair Scale 2 Form A). The reason for choosing this test was due to the fact, that it is beyond the barrier of culture. While emphasizing the importance of this test the author claims that the test measures individual intelligence in a manner designed to reduce as much as possible, the influence of verbal fluency, cultural climate and educational level.

The comfortability and ease with which this test can be administered was also a consideration. The scale may be used both as an individual and as a group test. In order to avoid the influence of language the tasks in the test are so structured that the subjects are required only to perceive relationships in shapes and figures.

The scale consists of four sub-tests, which contain 46 items. The first sub test has 12 series items and the time allotted for it is 3 minutes. The second sub test contains 14 classification items and the time allotted for it is 4 minutes. The third sub test is constituted of 12 matrices and the allotted time is 3 minutes. The fourth sub test has 8 topology items and the time allotted for it is 2½ minutes. All
these items are arranged in order of increasing difficulty. Examples are given before each sub test so that the task requirements are understood well by the subjects involved.

**RELIABILITY OF INTELLIGENCE MEASURE**

The reliability of the test has been evaluated both in terms of the dependability coefficient and the consistency coefficient. The dependability coefficient (i.e. split half reliability) corrected to full length for four different groups has been reported as 0.70, 0.86, 0.87 and 0.92. Besides it shows an r value of 0.56 to 0.85 with the Revised Stanford Binet, of 0.73 with the Otis Quick Scoring Test, of 0.59 with A.C.E., and of 0.84 with the Wechsler Believe Scale.

**VALIDITY OF INTELLIGENCE MEASURE**

The validity of the test was found to be 0.73 when this was correlated with other recognizable tests of general ability.

**SCORING**

The investigator strictly followed the guidelines provided in the manual for the purpose of scoring. The test was scored by the investigator herself with the help of scoring keys available with the test manual. The right answer was scored as 1 and a wrong one was scored as 0. The score of a candidate on the test was the number of
3.24 **MEASURE OF PERSONALITY**

For studying the personality characteristics of teachers in the present study the investigator employed R.B. Cattell's Sixteen Personality Factor Questionnaire (16 PF Form A) covering sixteen personality dimensions. The 16 PF is a comprehensive test of personality consisting of 187 items, which the author claims measure distinct dimensions or traits of personality. The test is designed for use with adults and the time required for its administration is about 45-60 minutes. The test can be used both individually or in group.

The sixteen dimensions of personality on the 16 PF are identified with alphabets. Twelve of the sixteen factors are as A, B, C, E, F, G, H, I, L, M, N, O and the last four being designated as Q₁, Q₂, Q₃ and Q₄.

A list of sixteen personality dimensions is given below with left pole showing low score and the right pole high score.

<table>
<thead>
<tr>
<th>FACTOR A</th>
<th>RESERVED</th>
<th>OUTGOING</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(Detached, critical, aloof, stiff)</td>
<td>(Warmhearted, easy-going, participating)</td>
</tr>
<tr>
<td>FACTOR B</td>
<td>DULL</td>
<td>BRIGHT</td>
</tr>
<tr>
<td>FACTOR</td>
<td>phrase</td>
<td>(Low intelligence)</td>
</tr>
<tr>
<td>----------</td>
<td>-------------------------</td>
<td>--------------------</td>
</tr>
<tr>
<td>C</td>
<td>AFFECTED BY FEELINGS</td>
<td>EMOTIONALLY STABLE</td>
</tr>
<tr>
<td></td>
<td>(Emotionally less stable,</td>
<td>(Mature, faces reality,</td>
</tr>
<tr>
<td></td>
<td>easily upset, changeable)</td>
<td>calm)</td>
</tr>
<tr>
<td>E</td>
<td>HUMBLE</td>
<td>ASSERTIVE</td>
</tr>
<tr>
<td></td>
<td>(Mild, easily led, docile,</td>
<td>(Aggressive, competitive</td>
</tr>
<tr>
<td></td>
<td>accommodating)</td>
<td>stubborn)</td>
</tr>
<tr>
<td>F</td>
<td>SOBER</td>
<td>HAPPY-GO-LUCKY</td>
</tr>
<tr>
<td></td>
<td>(Taciturn, serious)</td>
<td>(Enthusiastic)</td>
</tr>
<tr>
<td>G</td>
<td>EXPEDIENT</td>
<td>CONSCIENTIOUS</td>
</tr>
<tr>
<td></td>
<td>(Disregards rules)</td>
<td>(Persistent, moralistic,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>staid)</td>
</tr>
<tr>
<td>H</td>
<td>SHY</td>
<td>VENTUREsome</td>
</tr>
<tr>
<td></td>
<td>(Timid, threat, sensitive)</td>
<td>(Uninhibited, socially bold)</td>
</tr>
<tr>
<td>I</td>
<td>TOUGH-MINDED</td>
<td>TENDER-MINDED</td>
</tr>
<tr>
<td></td>
<td>(Self reliant, realistic)</td>
<td>(Sensitive, clinging, over</td>
</tr>
<tr>
<td></td>
<td></td>
<td>protected)</td>
</tr>
<tr>
<td>L</td>
<td>TRUSTING</td>
<td>SUSPICIOUS</td>
</tr>
<tr>
<td></td>
<td>(Accepting conditions)</td>
<td>(Hard to fool)</td>
</tr>
<tr>
<td>M</td>
<td>PRACTICAL</td>
<td>IMAGINATIVE</td>
</tr>
</tbody>
</table>
("Down-to-earth", concerns) (Bohemian, absent-minded)

FACTOR N FORT RIGHT ASTUTE
(Unpretentious, genuine, (Polished, socially aware)
but socially clumsy)

FACTOR O SELF ASSURED APPEHENSIVE
(Placid, secure, (Self reproaching,
complacent, serene) insecure, worrying,
troubled)

FACTOR Q1 CONSERVATIVE EXPERIMENTING
(Respecting traditional (Liberal, free-thinking)
ideas)

FACTOR Q2 GROUP DEPENDENT SELF SUFFICIENT
("A joiner", and sound (Resourceful, prefers
follower) own decisions)

FACTOR Q3 UNDISCIPLINED CONTROLLED
(Self conflict, lax, (Exacting, will power,
follows own urges, socially precise,
careless of social compulsive, following
rules) self image)

FACTOR Q4 RELAXED TENSE
(Tranquil, torpid, (Frustrated, driven unfrustrated, composed) over wrought)

RELIABILITY OF PERSONALITY MEASURE

The reliability of the test has been evaluated both in terms of the dependability coefficients and the stability coefficients.

**TABLE - 3.6**

16 PF DEPENDABILITY COEFFICIENTS:
Test-Retest with 2 to 7 day intervals

<table>
<thead>
<tr>
<th>FORM</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>I</th>
<th>L</th>
<th>M</th>
<th>N</th>
<th>O</th>
<th>Q1</th>
<th>Q2</th>
<th>Q3</th>
<th>Q4</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>86</td>
<td>79</td>
<td>82</td>
<td>83</td>
<td>90</td>
<td>81</td>
<td>92</td>
<td>90</td>
<td>78</td>
<td>75</td>
<td>77</td>
<td>83</td>
<td>82</td>
<td>85</td>
<td>80</td>
<td>72</td>
</tr>
</tbody>
</table>

Canacian subjects: N = 243 high school males and females.

**TABLE - 3.7**

16 PF STABILITY COEFFICIENTS:
Test-Retest with 2 to 48 month intervals

<table>
<thead>
<tr>
<th>FORM</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>I</th>
<th>L</th>
<th>M</th>
<th>N</th>
<th>O</th>
<th>Q1</th>
<th>Q2</th>
<th>Q3</th>
<th>Q4</th>
</tr>
</thead>
<tbody>
<tr>
<td>A+B</td>
<td>85</td>
<td>63</td>
<td>75</td>
<td>85</td>
<td>78</td>
<td>84</td>
<td>88</td>
<td>87</td>
<td>76</td>
<td>71</td>
<td>74</td>
<td>77</td>
<td>83</td>
<td>81</td>
<td>70</td>
<td>78</td>
</tr>
</tbody>
</table>

A - Two month interval, N = 132
B - Two and one-half month interval, N = 44, from La Forge (1962)

### TABLE - 3.8

EQUIVALENCE COEFFICIENTS OF TEST FORMS FOR EACH TRAIT

<table>
<thead>
<tr>
<th>FORM</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>I</th>
<th>J</th>
<th>K</th>
<th>L</th>
<th>M</th>
<th>N</th>
<th>O</th>
<th>P</th>
<th>Q</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td>A with B</td>
<td>57</td>
<td>49</td>
<td>54</td>
<td>52</td>
<td>61</td>
<td>47</td>
<td>71</td>
<td>59</td>
<td>37</td>
<td>40</td>
<td>21</td>
<td>59</td>
<td>34</td>
<td>39</td>
<td>43</td>
<td>62</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### VALIDITY OF PERSONALITY MEASURE

### TABLE - 3.9

DIRECT CONCEPT VALIDITIES OF THE 16 PF SCALES

<table>
<thead>
<tr>
<th>FORM</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>I</th>
<th>J</th>
<th>K</th>
<th>L</th>
<th>M</th>
<th>N</th>
<th>O</th>
<th>P</th>
<th>Q</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td>A + B</td>
<td>86</td>
<td>53</td>
<td>77</td>
<td>71</td>
<td>88</td>
<td>77</td>
<td>74</td>
<td>80</td>
<td>67</td>
<td>71</td>
<td>64</td>
<td>86</td>
<td>68</td>
<td>80</td>
<td>80</td>
<td>63</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### TABLE - 3.10

INDIRECT CONCEPT VALIDITIES OF THE FULL 16 PF

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>I</th>
<th>J</th>
<th>K</th>
<th>L</th>
<th>M</th>
<th>N</th>
<th>O</th>
<th>P</th>
<th>Q</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>95</td>
<td>95</td>
<td>95</td>
<td>96</td>
<td>94</td>
<td>95</td>
<td>96</td>
<td>91</td>
<td>74</td>
<td>63</td>
<td>84</td>
<td>83</td>
<td>90</td>
<td>93</td>
<td>93</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Based on 606 males and females.
SCORING

The test was hand scored by the investigator with the help of a stencil key provided with the test manual easily, rapidly and in a standard manner. The answers appeared as pencil marks in the boxes on the given answer sheet. Two stencil scoring keys were used; one covers Factors (traits) A, C, F, H, L, N, Q, and Q and the other, Factors B, E, G, I, M, O, Q, and Q. Stencil keys were fitted over the answer sheet one by one and marks visible through the holes were counted. Each answer was scored by giving 0, 1, or 2 points except the Factor B (intelligence) on which answer scored 0 (incorrect) or 1 (correct). The score of each item contributed to only one factor total. Then the investigator sum these scores and enter the total in the space indicated by the arrow on the stencil for each factor.

3.3 ADMINISTRATION OF THE TESTS AND COLLECTION OF DATA

Data collection is essentially an important part of the research process so that the inferences, hypotheses or generalizations tentatively held may be identified as valid, verified as correct or rejected as untenable.
After the selection of the sample and the required tools the task before the investigator was to collect data. The investigator personally went to the schools for the administration of the tests. The actual administration was preceded by a brief talk with the principal of each school with a view to explain the purpose of the investigation and to get his/her help and cooperation and the permission for the same.

Test of all the four variables i.e. test of frustration, intelligence test, creativity test and personality test (16 PF) were administered on the teachers.

Test administration is one of the most important step in the research process because in the absence of correct administration of the tests one cannot get valid and reliable results. In order to draw out the right response and for willing cooperation of the subjects the purpose of the study should be explained to them.

Thus in order to take the right responses from the subjects a brief talk was given to them to arouse their interest and to motivate them. The subjects were asked to do these tests to get a great deal of self insight and it would be enjoyable for them to do these tests. The instructions given in each tests were explained in a specified manner and each subject was requested to feel comfortable and free
for asking questions from the investigator, in case they felt any difficulty in understanding the items of the test. They were also given full assurance by the investigator that the information collected from them would be kept a total secret.

Each test was administered in accordance with the instructions laid down in their respective manuals. The investigator made her best efforts to see that each subject had clearly understood what he was to do before starting the test.

3.4 FINDING SIGNIFICANCE OF DIFFERENCE

For each variable mean and standard deviation were calculated. The means and standard deviations were put to 't' test to know the level of significance of difference between the means using the following formula.

\[
 t = \frac{M_1 - M_2}{\sqrt{\frac{\sigma_1^2}{N_1} + \frac{\sigma_2^2}{N_2}}}
\]

(Mc Nemar 1962, P. 102)

The analysis and interpretation of data is presented in the next chapter.
CHAPTER - IV

ANALYSIS AND INTERPRETATION OF DATA
ANALYSIS AND INTERPRETATION OF DATA

As mentioned in the earlier chapters the main objective of the present study was to identify the magnitude of frustration among both the male and female teachers of secondary schools, and to statistically discover the differences of high and low frustration groups in both the sexes separately as well as holistically on the measure of creativity, intelligence and their personality characteristics.

For conducting the study for this purpose, the sample involved, consisted of 167 female and 133 male teachers from 8 secondary schools of Aligarh city. The total number of teachers being 300 on whom the following tools were administered.

(i) Frustration Test by N.S. Chauhan & G.P. Tiwari.

(ii) Verbal Test of Creative Thinking by Baqer Mehdi.

(iii) Culture Fair Test of Intelligence by R.B. Cattell & A.K.S. Cattell.

(iv) Test of personality (16 PF) by R.B. Cattell and IPAT Staff.

As can be visualized from the extent of the task, the research programme was quite stupendous for the present humble investigator. With concerted efforts alone the present investigator could administer
the tests on the teachers and collect her data according to the instructions given in the manual of the tests.

After completing the scoring work as given in the previous chapter of method and procedure the investigator classified the sample into three groups namely the high frustration group, the average frustration group and the low frustration group. Of the two extreme groups i.e. the high frustration group and the low frustration group the means and standard deviations were calculated. For finding the significance of difference between the means of two groups the mean scores on different components of frustration and total frustration were put to 't' test and were found to be significantly different from each other both in the total mean score of frustration as well as in the frustration components namely regression, fixation, resignation and aggression as can be seen from table No. 4.1.

Statistical treatment of extreme groups namely the high frustration group and the low frustration group was done to find out more precisely if the two groups differed significantly on frustration and its components or not. Quite interestingly it was found that the two comparison groups showed highly significant difference of 0.01 level along all the four components of frustration as well as total frustration. This vast difference on frustration among the teachers
### TABLE 4.1

<table>
<thead>
<tr>
<th>Variables</th>
<th>High Frustration Group N = 100</th>
<th>Low Frustration Group N = 100</th>
<th>( 't' ) Value</th>
<th>Level of significance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>S.D.</td>
<td>Mean</td>
<td>S.D.</td>
</tr>
<tr>
<td>Regression</td>
<td>30.67</td>
<td>5.85</td>
<td>22.52</td>
<td>5.53</td>
</tr>
<tr>
<td>Fixation</td>
<td>28.72</td>
<td>5.18</td>
<td>20.81</td>
<td>4.94</td>
</tr>
<tr>
<td>Resignation</td>
<td>27.43</td>
<td>4.31</td>
<td>15.42</td>
<td>5.29</td>
</tr>
<tr>
<td>Aggression</td>
<td>25.03</td>
<td>4.48</td>
<td>17.90</td>
<td>5.36</td>
</tr>
<tr>
<td>Total Frustration</td>
<td>111.85</td>
<td>7.90</td>
<td>76.65</td>
<td>9.37</td>
</tr>
</tbody>
</table>
encouraged the investigator to search out a bit scientifically the differences between the two groups on the measure of creativity, intelligence and certain personality factors just to find out if these cognitive and non cognitive factors had any bearing on the different magnitudes of frustration among the teachers.

The pairs of groups compared were as follows:

(1) High frustration group vs. Low frustration group

(2) High frustration male teachers vs. Low frustration male teachers

(3) High frustration female teachers vs. Low frustration female teachers

(4) Male teachers vs. Female teachers

(5) High frustration male teachers vs. High frustration female teachers

(6) Low frustration male teachers vs. Low frustration female teachers

The analysis carried out by means of 't' test is presented in tables from 4.2 to 4.25.
4.1 **COMPARISON BETWEEN THE HIGH FRUSTRATION GROUP AND THE LOW FRUSTRATION GROUP**

As can be seen from Table 4.2 on the measure of regression, the mean scores of the high frustration group and the low frustration group were 30.67 and 22.52 and the respective SDs were 5.85 and 5.53. When the 't' value was calculated to find out the significance of difference between the means of the two groups, the 't' value was found to be 10.06 which is significant at 0.01 level.

The result thus shows that the high frustration group was significantly different from the low frustration group on the measure of regression.

In the case of fixation as can be seen from table 4.2 the high frustration group had a mean score of 28.72 and the SD was 5.18 while the low frustration group's mean score was found to be 20.81 and SD 4.94. The 't' value was found to be 10.98 which is again significant at 0.01 level. The result thus shows, that the high frustration group was significantly higher than the low frustration group on the measure of fixation also.

When the comparisons were made between the high frustration group and the low frustration group on the measure of resignation as
TABLE 4.2

Showing the significance of difference between the mean scores of the high frustration group and the low frustration group on the measure of frustration and its components.

<table>
<thead>
<tr>
<th>Variables</th>
<th>High Frustration Group N = 100</th>
<th>Low Frustration Group N = 100</th>
<th>‘t’ Value</th>
<th>Level of significance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>S.D.</td>
<td>Mean</td>
<td>S.D.</td>
</tr>
<tr>
<td>Regression</td>
<td>30.67</td>
<td>5.85</td>
<td>22.52</td>
<td>5.53</td>
</tr>
<tr>
<td>Fixation</td>
<td>28.72</td>
<td>5.18</td>
<td>20.81</td>
<td>4.94</td>
</tr>
<tr>
<td>Resignation</td>
<td>27.43</td>
<td>4.31</td>
<td>15.42</td>
<td>5.29</td>
</tr>
<tr>
<td>Aggression</td>
<td>25.03</td>
<td>4.48</td>
<td>17.90</td>
<td>5.36</td>
</tr>
<tr>
<td>Total Frustration</td>
<td>111.85</td>
<td>7.90</td>
<td>76.65</td>
<td>9.37</td>
</tr>
</tbody>
</table>
shown in table 4.2 the high frustration group was found to be having a higher mean score i.e. 27.43 than the mean score of the low frustration group i.e. 15.42. Their SDs were found to be 4.31 and 5.29 respectively. When the significance of difference between the means was computed, the 't' value was found to be 17.49 which is significant at 0.01 level.

Thus the result showed that the high frustration group scored significantly higher than the low frustration group on the measure of resignation.

The comparisons between the high frustration group and the low frustration group on the measure of aggression as can be seen from table 4.2 yielded mean scores as 25.03 and 17.90 respectively. While their SDs were 4.48 and 5.36. The 't' value was computed to be 10.15 which is highly significant i.e. significant at 0.01 level. It is clear from the result that the high frustration group scored significantly higher than the low frustration group on the measure of aggression.

As can be seen from table 4.2 the mean scores of the high frustration group and the low frustration group on the measure of total frustration were 111.85 and 76.65 and their SDs were found to be 7.90 and 9.37 respectively. These two means were put to 't' test
to know the significance of difference between two means. The 't' value was found to be 28.71 which is significant at 0.01 level.

The result thus shows that highly significant difference was found between the high frustration group and the low frustration group on the measure of total frustration as such the two comparison groups stood far apart as extreme groups for further statistical comparisons.

These extreme groups of high and low frustration were then compared along creativity and its components.

As can be seen from table 4.3 the mean scores of the high frustration group and the low frustration group were obtained and compared on the measure of fluency and were found to be 37.57 and 37.32 and their SDs were found to be 10.55 and 12.83 respectively. The two means were put to 't' test for knowing the significance of difference between the means. The value of 't' was found to be 0.14 which is insignificant.

The result thus clearly shows that there was no significant difference between the high frustration group and the low frustration group on the measure of fluency.

As presented in table 4.3 comparisons were made on the measure
TABLE 4.3

Showing the significance of difference between the mean scores of the high frustration group and the low frustration group on the measure of creativity and its components.

<table>
<thead>
<tr>
<th>Variables</th>
<th>High Frustration Group N = 100</th>
<th>Low Frustration Group N = 100</th>
<th>'t' Value</th>
<th>Level of significance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>S.D.</td>
<td>Mean</td>
<td>S.D.</td>
</tr>
<tr>
<td>Fluency</td>
<td>37.57</td>
<td>10.55</td>
<td>37.32</td>
<td>12.83</td>
</tr>
<tr>
<td>Flexibility</td>
<td>28.81</td>
<td>7.74</td>
<td>29.86</td>
<td>9.71</td>
</tr>
<tr>
<td>Originality</td>
<td>6.15</td>
<td>6.85</td>
<td>4.76</td>
<td>6.73</td>
</tr>
<tr>
<td>Total Creativity</td>
<td>72.53</td>
<td>21.22</td>
<td>71.94</td>
<td>25.52</td>
</tr>
</tbody>
</table>
of flexibility and it was found that the mean scores of the high frustration group and the low frustration group were found to be 28.81 and 29.86 and their respective SDs were 7.74 and 9.71. The 't' value was found to be 0.84 which is insignificant. The result thus clearly show that both the groups i.e. the high frustration group and the low frustration group were similar once again on the measure of flexibility.

As shown in table 4.3 the mean scores of the high frustration group and the low frustration group were measured and compared on originality and were found to be 6.15 and 4.76 and their SDs were 6.85 and 6.73 respectively. The 't' value was found to be 1.43 which is insignificant. It is inferred from the result that both the groups i.e. the high frustration group and the low frustration group were similar on the measure of originality.

On the measure of total creativity as can be seen from table 4.3 the mean scores of the high frustration group and the low frustration group were 72.53 and 71.94 and their respective SDs were 21.22 and 25.52. When the 't' value was calculated to find out the significance of difference between the means of the two groups, the 't' value was found to be 0.17 which is insignificant.
A single look at the table 4.3 provides a clear evidence that no significant difference was found between the mean scores of the high frustration group and the low frustration group on the measure of total creativity.

The investigator then made an attempt to compare the high frustration and low frustration groups on the measure of intelligence.

**TABLE 4.4**

**Showing the significance of difference between the mean scores of the high frustration group and the low frustration group on the measure of intelligence.**

<table>
<thead>
<tr>
<th>Variable</th>
<th>High Frustration Group N = 100</th>
<th>Low Frustration Group N = 100</th>
<th>'t' value</th>
<th>Level of significance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean: 25.94 S.D: 5.45</td>
<td>Mean: 26.32 S.D: 5.79</td>
<td>0.04</td>
<td>NS</td>
</tr>
</tbody>
</table>

As can be seen from table 4.4 that on the measure of intelligence the mean scores of the high frustration group and the low frustration group were 25.94 and 26.32 and their corresponding SDs were found to be 5.45 and 5.79. The 't' value was found to be 0.04 which is
insignificant.

The result thus clearly indicated that both the groups i.e. the high frustration group and the low frustration group were almost similar on the measure of intelligence.

Comparisons were then made regarding the personality characteristics of the high and low frustration groups.

As can be seen from table 4.5 the high frustration group differed significantly from the low frustration group on three personality factors namely (M) Practical vs. Imaginative, (O) self assured vs. Apprehensive, (Q\_4) Relaxed vs. Tense.

As for (M) factor Practical vs. Imaginative, on which high scores represent imagination and carelessness of practical matters and the low scores practical and careful personality characteristics. The high frustration group had 11.25 as their mean score with an SD of 2.90. The low frustration group on the other hand, had a lower mean score 10.38 with an SD of 3.02. The 't' value was found to be 2.07 which is significant at 0.05 level. Since the mean of the high frustration group was significantly higher than that of the low frustration group, it can be concluded that the high frustration group was more imaginative and careless of practical matters than the low frustration
### TABLE 4.5

Showing the significance of difference between the mean scores of the high frustration group and the low frustration group on sixteen personality factors.

<table>
<thead>
<tr>
<th>16 Personality Factors</th>
<th>High Frustration Group</th>
<th></th>
<th>Low Frustration Group</th>
<th></th>
<th>'t' value</th>
<th>Level of significance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N = 100</td>
<td></td>
<td>N = 100</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mean</td>
<td>S.D.</td>
<td>Mean</td>
<td>S.D.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. Reserved - Outgoing</td>
<td>9.32</td>
<td>2.81</td>
<td>9.97</td>
<td>3.32</td>
<td>1.49</td>
<td>NS</td>
</tr>
<tr>
<td>B. Less intelligent - More intelligent</td>
<td>6.75</td>
<td>2.57</td>
<td>7.16</td>
<td>2.50</td>
<td>0.87</td>
<td>NS</td>
</tr>
<tr>
<td>C. Affected by feelings - Emotionally stable</td>
<td>11.69</td>
<td>3.13</td>
<td>11.77</td>
<td>3.31</td>
<td>0.17</td>
<td>NS</td>
</tr>
<tr>
<td>E. Humble, mild - Assertive, independent</td>
<td>10.72</td>
<td>2.91</td>
<td>10.28</td>
<td>3.25</td>
<td>1.01</td>
<td>NS</td>
</tr>
<tr>
<td>F. Sober - Happy-go-lucky</td>
<td>11.05</td>
<td>2.73</td>
<td>10.61</td>
<td>2.77</td>
<td>1.12</td>
<td>NS</td>
</tr>
<tr>
<td>G. Expedient - Conscientious</td>
<td>10.47</td>
<td>2.79</td>
<td>11.01</td>
<td>3.35</td>
<td>1.23</td>
<td>NS</td>
</tr>
<tr>
<td>H. Shy - Venturesome</td>
<td>11.82</td>
<td>3.35</td>
<td>11.33</td>
<td>3.06</td>
<td>1.07</td>
<td>NS</td>
</tr>
<tr>
<td>I. Tough minded - Tender minded</td>
<td>10.21</td>
<td>2.76</td>
<td>9.62</td>
<td>2.84</td>
<td>1.48</td>
<td>NS</td>
</tr>
<tr>
<td>L. Trusting - Suspicious</td>
<td>10.14</td>
<td>3.19</td>
<td>10.65</td>
<td>13.39</td>
<td>0.37</td>
<td>NS</td>
</tr>
<tr>
<td>M. Practical - Imaginative</td>
<td>11.25</td>
<td>2.90</td>
<td>10.38</td>
<td>3.02</td>
<td>2.07</td>
<td>0.05</td>
</tr>
<tr>
<td>N. Fortright - Astute</td>
<td>10.30</td>
<td>2.51</td>
<td>9.98</td>
<td>2.79</td>
<td>0.85</td>
<td>NS</td>
</tr>
<tr>
<td>O. Self assured - Apprehensive</td>
<td>11.68</td>
<td>3.13</td>
<td>10.67</td>
<td>2.66</td>
<td>2.45</td>
<td>0.02</td>
</tr>
<tr>
<td>Q1. Conservative - Experimenting</td>
<td>9.57</td>
<td>2.79</td>
<td>9.76</td>
<td>2.77</td>
<td>0.48</td>
<td>NS</td>
</tr>
<tr>
<td>Q2. Group dependent - Self sufficient</td>
<td>10.07</td>
<td>2.99</td>
<td>9.87</td>
<td>3.03</td>
<td>0.46</td>
<td>NS</td>
</tr>
<tr>
<td>Q3. Undisciplined - Controlled</td>
<td>9.80</td>
<td>2.67</td>
<td>9.96</td>
<td>3.29</td>
<td>0.37</td>
<td>NS</td>
</tr>
<tr>
<td>Q4. Relaxed - Tense</td>
<td>12.14</td>
<td>10.96</td>
<td>3.10</td>
<td>3.30</td>
<td>7.88</td>
<td>0.01</td>
</tr>
</tbody>
</table>
group, and conversely the low frustration group was more practical and careful than their counterpart, the high frustration group.

On factor (O) Self assured vs. Apprehensive, on which the high scorers were prone to be apprehensive and worrying and the low scorers placid and self assured. The means of the high frustration group and the low frustration group were 11.68 and 10.67 while the SDs were 3.13 and 2.66. The 't' value showing the significance of difference between the two means had been found to be 2.45 which is again significant at 0.02 level.

The result thus clearly brings out that the high frustration group was more apprehensive and worrying than the low frustration group, while the later was placid and self assured.

On the factor represented by the letter (Q^) with the two poles designated as Relaxed vs. Tense, the high scores represent tense and frustrated while the low scores represent relaxed and unfrustrated. The mean scores of the high frustration group and the low frustration group were 12.14 and 3.10 and their SDs were 10.96 and 3.30 respectively. The 't' value as can be seen from table 4.5 was 7.88 which is significant at 0.01 level.
Since the mean scores of the high frustration group was significantly greater than that of the low frustration group, it was concluded that the high frustration group was less inclined to be relaxed and unfrustrated, while the low frustration group was more inclined to be relaxed and unfrustrated.

On rest of personality factors the differences between the two groups were insignificant.

It was thus concluded from the results presented in table 4.5 that the high frustration group was more imaginative, apprehensive and tense, while the low frustration group was comparatively more practical, self assured and relaxed.

4.2 COMPARISON BETWEEN THE HIGH FRUSTRATION MALE TEACHERS AND THE LOW FRUSTRATION MALE TEACHERS

As can be seen from table 4.6 that the mean scores of the high frustration male teachers and the low frustration male teachers on the measure of regression were found to be 29.23 and 20.93 and obtained SDs were 4.70 and 5.67. When the means of the two groups were put to 't' test for knowing the significance of difference, the obtained 't' value was 7.24 which is significant at 0.01 level.
TABLE 4.6

Showing the significance of difference between the mean scores of the high frustration male teachers and the low frustration male teachers on the measure of frustration and its components.

<table>
<thead>
<tr>
<th>Variables</th>
<th>High Frustration Male Teachers N = 42</th>
<th>Low Frustration Male Teachers N = 43</th>
<th>‘t’ Value</th>
<th>Level of significance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>S.D.</td>
<td>Mean</td>
<td>S.D.</td>
</tr>
<tr>
<td>Regression</td>
<td>29.23</td>
<td>4.70</td>
<td>20.93</td>
<td>5.67</td>
</tr>
<tr>
<td>Fixation</td>
<td>28.28</td>
<td>3.17</td>
<td>19.86</td>
<td>4.75</td>
</tr>
<tr>
<td>Resignation</td>
<td>26.50</td>
<td>3.99</td>
<td>16.30</td>
<td>4.98</td>
</tr>
<tr>
<td>Aggression</td>
<td>26.97</td>
<td>4.32</td>
<td>18.02</td>
<td>4.59</td>
</tr>
<tr>
<td>Total Frustration</td>
<td>111.00</td>
<td>6.99</td>
<td>75.11</td>
<td>10.15</td>
</tr>
</tbody>
</table>
Thus it can be inferred from the result that the high frustration male teachers scored significantly higher on the measure of regression than the low frustration male teachers.

The mean scores of the high frustration male teachers and the low frustration male teachers on the measure of fixation as shown in table 4.6 were 28.28 and 19.86 and their SDs were 3.17 and 4.75 respectively. The obtained 't' value was 9.47 which is significant at 0.01 level. From the result stated above it was concluded that the high frustration male teachers were significantly higher on the measure of fixation than the low frustration male teachers.

On the measure of resignation as can be seen from table 4.6 the mean score of the high frustration male teachers was 26.50 with an SD of 3.99, the low frustration group had a mean of 16.30 with an SD of 4.98. The 't' value was found to be 10.27 which is significant at 0.01 level. It can be concluded from the result that the high frustration male teachers scored significantly higher than the low frustration male teachers on the measure of resignation.

When the comparisons were made between the high frustration male teachers and the low frustration male teachers on the measure of aggression significant difference was found between these two
groups as shown in table 4.6. The mean scores of the high frustration male teachers and the low frustration male teachers were 26.97 and 18.02 respectively and their corresponding SDs were 4.32 and 4.59. The 't' value was found to be 9.12 which is significant at 0.01 level.

It is, therefore, concluded that the high frustration male teachers were more aggressive than the low frustration male teachers.

As it is evident from table 4.6 the mean scores of the high frustration male teachers and the low frustration male teachers on the measure of total frustration were found to be 111.00 and 75.11 and their respective SDs were found to be 6.99 and 10.15. The obtained 't' value was 18.70 which is significant at 0.01 level.

It can be inferred from the result that the high frustration male teachers scored significantly higher than the low frustration male teachers on the measure of total frustration.

The high frustration male and low frustration male teachers were then compared on the measure of creativity and its components.

As it is evident from table 4.7 the high frustration male teachers and the low frustration male teachers had 38.19 and 36.09 as their mean scores on the measure of fluency and the SDs were 10.10 and
TABLE 4.7

Showing the significance of difference between the mean scores of the high frustration male teachers and the low frustration male teachers on the measure of creativity and its components.

<table>
<thead>
<tr>
<th>Variables</th>
<th>High Frustration Male Teachers N = 42</th>
<th>Low Frustration Male Teachers N = 43</th>
<th>‘t’ Value</th>
<th>Level of significance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>S.D.</td>
<td>Mean</td>
<td>S.D.</td>
</tr>
<tr>
<td>Fluency</td>
<td>38.19</td>
<td>10.10</td>
<td>36.09</td>
<td>11.07</td>
</tr>
<tr>
<td>Flexibility</td>
<td>29.42</td>
<td>8.33</td>
<td>28.86</td>
<td>8.73</td>
</tr>
<tr>
<td>Originality</td>
<td>8.07</td>
<td>7.25</td>
<td>4.02</td>
<td>6.15</td>
</tr>
<tr>
<td>Total Creativity</td>
<td>75.69</td>
<td>20.98</td>
<td>68.97</td>
<td>22.25</td>
</tr>
</tbody>
</table>
11.07 respectively. Since the 't' value was found to be 0.90, the difference between the means of the two groups is insignificant. The result clearly depicts that the high frustration male teachers and the low frustration male teachers were similar on the measure of fluency.

As can be seen from table 4.7 the means of the high frustration male teachers and the low frustration male teachers on the measure of flexibility were 29.42 and 28.86 with SDs 8.33 and 8.73 respectively. The 't' value was found to be 0.30 which is insignificant.

It was concluded that no significant difference was found between the high frustration male teachers and the low frustration male teachers on the measure of flexibility.

There was a quite significant difference between the high frustration male teachers and the low frustration male teachers on the measure of originality. The mean score of the high frustration male teachers was 8.07 and SD 7.25, and that of the low frustration male teachers 4.02 and 6.15 respectively. The 't' value, as can be seen from table 4.7 was 2.74 which is significant at 0.01 level.

The significant value of 't' points out that the high frustration male teachers achieve higher than the low frustration male teachers on the measure of originality.
On the measure of total creativity, the high frustration male teachers had 75.69 as their mean score. The mean score of the low frustration male teachers was 68.97, while the SDs were 20.98 and 22.25 respectively. The 't' value, as presented in table 4.7 was 1.41 which is insignificant.

The results thus clearly suggest that the high frustration male teachers and the low frustration male teachers were similar on the measure of total creativity.

**TABLE 4.8**

*Showing the significance of difference between the mean scores of the high frustration male teachers and the low frustration male teachers on the measure of intelligence.*

<table>
<thead>
<tr>
<th>Variable</th>
<th>High Frustration Male Teachers</th>
<th>Low Frustration Male Teachers</th>
<th>'t' value</th>
<th>Level of significance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean  S.D.</td>
<td>Mean  S.D.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intelligence</td>
<td>26.19  5.82</td>
<td>25.06  4.79</td>
<td>0.95</td>
<td>NS</td>
</tr>
</tbody>
</table>

As can be seen from table 4.8 that on the measure of intelligence the mean scores of the high frustration male teachers and the low
### TABLE 4.9

Showing the significance of difference between the mean scores of the high frustration male teachers and the low frustration male teachers on sixteen personality factors.

<table>
<thead>
<tr>
<th>16 Personality Factors</th>
<th>High Frustration Male Teachers N = 42</th>
<th>Low Frustration Male Teachers N = 43</th>
<th>'t' value</th>
<th>Level of significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>S.D.</td>
<td>Mean</td>
<td>S.D.</td>
<td></td>
</tr>
<tr>
<td>A. Reserved - Outgoing</td>
<td>9.26</td>
<td>10.00</td>
<td>2.56</td>
<td>2.26</td>
</tr>
<tr>
<td>B. Less intelligent - More intelligent</td>
<td>6.73</td>
<td>7.27</td>
<td>2.96</td>
<td>2.19</td>
</tr>
<tr>
<td>C. Affected by feelings - Emotionally stable</td>
<td>12.33</td>
<td>12.04</td>
<td>3.21</td>
<td>3.07</td>
</tr>
<tr>
<td>E. Humble, mild - Assertive, independent</td>
<td>11.09</td>
<td>10.72</td>
<td>3.27</td>
<td>10.72</td>
</tr>
<tr>
<td>F. Sober - Happy-go-lucky</td>
<td>11.69</td>
<td>10.90</td>
<td>2.93</td>
<td>2.66</td>
</tr>
<tr>
<td>G. Expedient - Conscientious</td>
<td>10.33</td>
<td>11.62</td>
<td>2.72</td>
<td>3.35</td>
</tr>
<tr>
<td>H. Shy - Venturesome</td>
<td>12.80</td>
<td>11.51</td>
<td>3.83</td>
<td>3.20</td>
</tr>
<tr>
<td>I. Tough minded - Tender minded</td>
<td>10.59</td>
<td>10.30</td>
<td>2.76</td>
<td>2.73</td>
</tr>
<tr>
<td>L. Trusting - Suspicious</td>
<td>10.26</td>
<td>9.30</td>
<td>3.21</td>
<td>2.88</td>
</tr>
<tr>
<td>M. Practical - Imaginative</td>
<td>11.38</td>
<td>11.09</td>
<td>2.89</td>
<td>3.17</td>
</tr>
<tr>
<td>N. Fortright - Astute</td>
<td>10.09</td>
<td>10.53</td>
<td>2.80</td>
<td>2.77</td>
</tr>
<tr>
<td>O. Self assured - Apprehensive</td>
<td>11.64</td>
<td>11.18</td>
<td>3.13</td>
<td>2.67</td>
</tr>
<tr>
<td>Q1. Conservative - Experimenting</td>
<td>9.73</td>
<td>10.06</td>
<td>2.74</td>
<td>3.09</td>
</tr>
<tr>
<td>Q2. Group dependent - Self sufficient</td>
<td>10.26</td>
<td>10.39</td>
<td>3.02</td>
<td>3.25</td>
</tr>
<tr>
<td>Q3. Undisciplined - Controlled</td>
<td>9.71</td>
<td>10.39</td>
<td>2.77</td>
<td>3.55</td>
</tr>
<tr>
<td>Q4. Relaxed - Tense</td>
<td>12.40</td>
<td>11.93</td>
<td>2.77</td>
<td>3.28</td>
</tr>
</tbody>
</table>
frustration male teachers were found to be 26.19 and 25.06 and their respective SDs were 5.82 and 4.79. The obtained 't' value was 0.95 which is insignificant.

Thus it can be inferred from the above result that both the groups i.e. the high frustration male teachers and the low frustration male teachers were similar on the measure of intelligence.

Comparisons were then made along certain personality characteristics.

The review of table 4.9 indicates that on 16 personality factors, there was no significant difference between the high frustration male teachers and the low frustration male teachers.

4.3 COMPARISON BETWEEN THE HIGH FRUSTRATION FEMALE TEACHERS AND THE LOW FRUSTRATION FEMALE TEACHERS

Table 4.10 ascertains that the high frustration female teachers were significantly different from the low frustration female teachers on the measure of regression.

Their mean scores were 31.70 and 23.71 and SDs 6.36 and 5.10 respectively. The 't' value was 7.35, which is significant at 0.01 level.
TABLE 4.10

Showing the significance of difference between the mean scores of the high frustration female teachers and the low frustration female teachers on the measure of frustration and its components.

<table>
<thead>
<tr>
<th>Variables</th>
<th>High Frustration Female Teachers N = 58</th>
<th>Low Frustration Female Teachers N = 57</th>
<th>‘t’ Value</th>
<th>Level of significance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>S.D.</td>
<td>Mean</td>
<td>S.D.</td>
</tr>
<tr>
<td>Regression</td>
<td>31.70</td>
<td>6.36</td>
<td>23.71</td>
<td>5.10</td>
</tr>
<tr>
<td>Fixation</td>
<td>29.03</td>
<td>6.22</td>
<td>21.52</td>
<td>4.97</td>
</tr>
<tr>
<td>Resignation</td>
<td>28.10</td>
<td>4.41</td>
<td>14.75</td>
<td>5.42</td>
</tr>
<tr>
<td>Aggression</td>
<td>23.62</td>
<td>4.04</td>
<td>17.80</td>
<td>5.86</td>
</tr>
<tr>
<td>Total Frustration</td>
<td>112.46</td>
<td>8.45</td>
<td>77.80</td>
<td>8.55</td>
</tr>
</tbody>
</table>
On this basis it can be apprehended that the high frustration female teachers scored significantly higher than the low frustration female teachers on the measure of regression.

The review of table 4.10 indicates that the mean scores of the high frustration female teachers and the low frustration female teachers on the measure of fixation were 29.03 and 21.52. Their SDs were 6.22 and 4.97 respectively. Two means were then put to 't' test for knowing the significance of difference between the two means, the 't' value was found to be 7.07 which is significant at 0.01 level.

On account of the results described above, it can be concluded that high frustration female teachers were high scorers and the low frustration female teachers were low scorers on the measure of fixation.

The two groups i.e. the high frustration female teachers and the low frustration female teachers had a mean score of 28.10 and 14.75 and SDs 4.41 and 5.42 respectively on the measure of resignation as it is evident from table 4.10. The 't' value was 14.36, which is significant at 0.01 level.

From the above analysis, it can be well inferred that the high frustration female teachers differed from the low frustration female
teachers on the measure of resignation.

As shown in table 4.10 the mean scores of the high frustration female teachers and the low frustration female teachers on the measure of aggression were found to be 23.62 and 17.80 their respective SDs were 4.04 and 5.86. These two means were put to 't' test for knowing the significance of difference between the two means. The obtained 't' value was 6.14 which is significant at 0.01 level.

The result thus shows that the high frustration female teachers had significantly greater aggression than the low frustration female teachers.

Scanning of the table 4.10 suggests significant difference between the high frustration female teachers and the low frustration female teachers on the measure of total frustration. As the mean scores of the high frustration female teachers and the low frustration female teachers were 112.46 and 77.80 correspondingly the SDs were 0.45 and 21.67. The 't' value was 21.67 which is significant at 0.01 level.

The outcome of the results clearly indicates that the high frustration female teachers scored significantly higher than the low frustration female teachers on the measure of total frustration.
Comparisons were then conducted on the measure of creativity.

As shown in table 4.11 the mean scores of the high frustration female teachers and the low frustration female teachers were measured and compared on fluency and were found to be 37.12 and 38.24 and their respective SDs were 10.85 and 13.94. The 't' value was found to be 0.47 which is insignificant.

It is inferred from the result that both the groups i.e. the high frustration female teachers and the low frustration female teachers were similar on the measure of fluency.

The statistical analysis of flexibility factor, displays the mean scores of the high frustration female teachers and the low frustration female teachers as 28.36 and 30.61, and their SDs were found to be 7.26 and 10.33 respectively. The 't' value was 1.34 as can be seen from table 4.11 which is insignificant.

It is clear from the table that no significant difference was found between the high frustration female teachers and the low frustration female teachers on the measure of flexibility.

Comparisons were made on the measure of originality and it was found that the mean scores of the high frustration female teachers and the low frustration female teachers were 4.75 and 5.31 and their
Table 4.11

Showing the significance of difference between the mean scores of the high frustration female teachers and the low frustration female teachers on the measure of creativity and its components.

<table>
<thead>
<tr>
<th>Variables</th>
<th>High Frustration Female Teachers</th>
<th>Low Frustration Female Teachers</th>
<th>‘t’ Value</th>
<th>Level of significance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N = 58</td>
<td>N = 57</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mean</td>
<td>S.D.</td>
<td>Mean</td>
<td>S.D.</td>
</tr>
<tr>
<td>Fluency</td>
<td>37.12</td>
<td>10.85</td>
<td>38.24</td>
<td>13.94</td>
</tr>
<tr>
<td>Flexibility</td>
<td>28.36</td>
<td>7.26</td>
<td>30.61</td>
<td>10.33</td>
</tr>
<tr>
<td>Originality</td>
<td>4.75</td>
<td>6.19</td>
<td>5.31</td>
<td>7.09</td>
</tr>
<tr>
<td>Total Creativity</td>
<td>70.24</td>
<td>21.11</td>
<td>74.17</td>
<td>27.52</td>
</tr>
</tbody>
</table>
SDs were 6.19 and 7.09 respectively. The 't' value was found to be 0.44 which is insignificant as shown in table 4.11.

The results thus clearly indicated that both the high frustration female teachers and the low frustration female teachers were not much different once again on the measure of originality.

As can be seen from the given table 4.11 the mean scores of the high frustration female teachers and the low frustration female teachers were measured and compared on the measure of total creativity and were found to be 70.24 and 74.17 and their SDs were found to be 21.11 and 27.52 respectively. The 't' value was found to be 0.85 which is insignificant.

It is inferred from the result that both the high frustration female teachers and the low frustration female teachers were again not significantly different on the measure of total creativity.
TABLE 4.12

Showing the significance of difference between the mean scores of the high frustration female teachers and the low frustration female teachers on the measure of intelligence

<table>
<thead>
<tr>
<th>Variable</th>
<th>High Frustration Female Teachers N = 58</th>
<th>Low Frustration Female Teachers N = 57</th>
<th>'t' value</th>
<th>Level of significance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean 25.75 S.D. 5.16</td>
<td>Mean 27.26 S.D. 6.28</td>
<td>1.39</td>
<td>NS</td>
</tr>
</tbody>
</table>

As given in table 4.12 when the high frustration female teachers and the low frustration female teachers were compared on the measure of intelligence their mean scores were 25.75 and 27.26 and their respective SDs were 5.16 and 6.28. For knowing the significance of difference between the two means, the means were put to 't' test and the 't' value was found to be 1.39 which is insignificant.

The results clearly indicate that both the groups i.e. the high frustration female teachers and the low frustration female teachers were almost similar on the measure of intelligence.

Comparisons on personality characteristics yielded quite interesting results.
Scanning of the table 4.13 suggests significant difference between the high frustration female teachers and the low frustration female teachers on 3 personality dimensions, such as (M) Practical vs. Imaginative, (O) Self assured vs. Apprehensive, (Q₄) Relaxed vs. Tense.

On factor (M) Practical vs. Imaginative the high score represents imaginative; and careless of practical matters while the low score practical and careful.

The mean scores of the high frustration female teachers and the low frustration female teachers were found to be 11.15 and 9.84 correspondingly their SDs were 2.91 and 2.79. The 't' value was 2.44 significant at 0.02 level.

The results thus clearly indicated that the high frustration female teachers were imaginative and careless of practical matters and the low frustration female teachers were more practical, and careful.

On factor (O) Self assured vs. Apprehensive as well, there exists meaningful difference between the high frustration female teachers and the low frustration female teachers. The mean score and SD of the high frustration female teachers was 11.70 and 3.12 while the mean score and SD of the low frustration female teachers was 10.28
### TABLE 4.13

Showing the significance of difference between the mean scores of the high frustration female teachers and the low frustration female teachers on sixteen personality factors.

<table>
<thead>
<tr>
<th>16 Personality Factors</th>
<th>High Frustration Female Teachers N = 58</th>
<th>Low Frustration Female Teachers N = 57</th>
<th>‘t’ value</th>
<th>Level of significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>S.D.</td>
<td>Mean</td>
<td>S.D.</td>
<td></td>
</tr>
<tr>
<td>A. Reserved - Outgoing</td>
<td>9.36</td>
<td>9.94</td>
<td>3.94</td>
<td>0.89</td>
</tr>
<tr>
<td>B. Less intelligent - More intelligent</td>
<td>6.75</td>
<td>7.07</td>
<td>2.70</td>
<td>0.66</td>
</tr>
<tr>
<td>C. Affected by feelings - Emotionally stable</td>
<td>11.22</td>
<td>11.56</td>
<td>3.46</td>
<td>0.55</td>
</tr>
<tr>
<td>E. Humble, mild - Assertive, independent</td>
<td>10.44</td>
<td>9.94</td>
<td>3.01</td>
<td>0.94</td>
</tr>
<tr>
<td>F. Sober - Happy-go-lucky</td>
<td>10.58</td>
<td>10.38</td>
<td>2.83</td>
<td>0.39</td>
</tr>
<tr>
<td>G. Expedient - Conscientious</td>
<td>10.56</td>
<td>10.54</td>
<td>3.28</td>
<td>0.04</td>
</tr>
<tr>
<td>H. Shy - Venturesome</td>
<td>11.10</td>
<td>11.19</td>
<td>2.95</td>
<td>0.16</td>
</tr>
<tr>
<td>I. Tough minded - Tender minded</td>
<td>9.93</td>
<td>9.10</td>
<td>2.82</td>
<td>1.58</td>
</tr>
<tr>
<td>L. Trusting - Suspicious</td>
<td>10.05</td>
<td>11.66</td>
<td>17.49</td>
<td>0.68</td>
</tr>
<tr>
<td>M. Practical - Imaginative</td>
<td>11.15</td>
<td>9.84</td>
<td>2.79</td>
<td>2.44</td>
</tr>
<tr>
<td>N. Fortright - Astute</td>
<td>10.44</td>
<td>9.56</td>
<td>2.73</td>
<td>1.87</td>
</tr>
<tr>
<td>O. Self assured - Apprehensive</td>
<td>11.70</td>
<td>10.28</td>
<td>2.59</td>
<td>2.63</td>
</tr>
<tr>
<td>Q. Conservative - Experimenting</td>
<td>9.44</td>
<td>9.52</td>
<td>2.48</td>
<td>0.15</td>
</tr>
<tr>
<td>Q. Group dependent - Self sufficient</td>
<td>9.93</td>
<td>9.47</td>
<td>2.79</td>
<td>0.84</td>
</tr>
<tr>
<td>Q. Undisciplined - Controlled</td>
<td>9.86</td>
<td>9.63</td>
<td>3.04</td>
<td>0.43</td>
</tr>
<tr>
<td>Q. Relaxed - Tense</td>
<td>11.94</td>
<td>10.22</td>
<td>3.13</td>
<td>2.83</td>
</tr>
</tbody>
</table>
and 2.59. The 't' value was 2.63 which is significant at 0.01 level.

The high scorer on this factor were apprehensive, and worrying. The low scorers were placid and self assured. It can be concluded that the high frustration female teachers were more apprehensive and worrying whereas their counter part i.e. the low frustration female teachers were placid and self assured.

As shown in table 4.13 the comparison between the high frustration female teachers and the low frustration female teachers on factor ($Q_4$) designated as Relaxed vs. Tense also shows significant difference between the two groups. The mean scores of the high frustration female teachers and the low frustration female teachers were 11.94 and 10.22 and their respective SDs were 3.31 and 3.13. The 't' value was calculated to know the significance of difference between the two means. The 't' value was found to be 2.83 which is significant at 0.01 level.

The high score on this factor represents tense, and frustrated, while the low scorers were relaxed and unfrustrated. It may be concluded that the high frustration female teachers with their high scores were tense and frustrated whereas the low frustration female teachers with their low scores were relaxed and unfrustrated.
On the remaining 13 factors as it is evident from table 4.13, no significant difference between two groups exists.

4.4 COMPARISON BETWEEN THE MALE AND THE FEMALE TEACHERS

As shown in table 4.14 the mean scores of male and female teachers on the measure of regression were 25.12 and 27.37 and their SDs were found to be 6.07 and 6.38 respectively. These two means were put to 't' test to know the significance of difference between the two means. The 't' value was found to be 3.09 which is significant at 0.01 level. The result thus shows that the female teachers had significantly greater regression than the male teachers.

A glance at table 4.14 makes it clear that the means of male and female teachers on the measure of fixation were found to be 24.04 and 24.89 and their corresponding SDs were found to be 5.48 and 6.26. The 't' value was found to be 1.23 which is insignificant.

The result thus clearly indicate that both the groups i.e. male and female teachers were almost similar on the measure of fixation.

On resignation, the mean scores and SDs of the male and female teachers were 21.67 and 22.14 and 6.25 and 7.62 respectively. The
TABLE 4.14

Showing the significance of difference between the mean scores of male and female teachers on the measure of frustration and its components.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Male Teachers</th>
<th>Female Teachers</th>
<th>'t' Value</th>
<th>Level of significance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N = 133</td>
<td>N = 167</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>Mean</td>
<td>Mean</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>S.D.</td>
<td>S.D.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regression</td>
<td>25.12</td>
<td>27.37</td>
<td>3.09</td>
<td>0.01</td>
</tr>
<tr>
<td>Fixation</td>
<td>24.04</td>
<td>24.89</td>
<td>1.23</td>
<td>NS</td>
</tr>
<tr>
<td>Resignation</td>
<td>21.67</td>
<td>22.14</td>
<td>0.57</td>
<td>NS</td>
</tr>
<tr>
<td>Aggression</td>
<td>22.43</td>
<td>20.55</td>
<td>2.81</td>
<td>0.01</td>
</tr>
<tr>
<td>Total Frustration</td>
<td>93.28</td>
<td>94.98</td>
<td>0.90</td>
<td>NS</td>
</tr>
</tbody>
</table>
't' value was found to be 0.57 as can be seen from table 4.14 which is insignificant. It may be said about them, that they were again similar on the measure of resignation.

Table 4.14 shows the significant difference between the male and female teachers on the measure of aggression. The mean scores of the male and female teachers were 22.43 and 20.55 and their respective SDs were 5.76 and 5.71. The 't' value was found to be 2.81 which is significant at 0.01 level.

The result thus clearly shows that the male teachers had significantly greater aggression than the female teachers.

As can be seen from table 4.14 that on the measure of total frustration the mean scores of male and female teachers were 93.28 and 94.98 and the respective SDs were 16.19 and 16.23. When the 't' value was calculated to find out the significance of difference between the two groups the 't' value was found to be 0.90 which is insignificant. It was concluded from the result that male and female teachers were similar on the measure of total frustration once again.

Relating to creativity table 4.15 reveals that the means of the male and female teachers on the measure of fluency were found to be 37.42 and 37.66 and their corresponding SDs were found to be
TABLE 4.15

Showing the significance of difference between the mean scores of male and female teachers on the measure of creativity and its components.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Male Teachers N = 133</th>
<th>Female Teachers N = 167</th>
<th>'t' Value</th>
<th>Level of significance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>S.D.</td>
<td>Mean</td>
<td>S.D.</td>
</tr>
<tr>
<td>Fluency</td>
<td>37.42 10.53</td>
<td>37.66 12.90</td>
<td>0.17</td>
<td>NS</td>
</tr>
<tr>
<td>Flexibility</td>
<td>29.43 8.11</td>
<td>29.69 9.09</td>
<td>0.25</td>
<td>NS</td>
</tr>
<tr>
<td>Originality</td>
<td>6.84 8.01</td>
<td>5.07 6.32</td>
<td>2.14</td>
<td>0.01</td>
</tr>
<tr>
<td>Total Creativity</td>
<td>73.71 22.04</td>
<td>72.43 24.67</td>
<td>0.46</td>
<td>NS</td>
</tr>
</tbody>
</table>
10.53 and 12.90. The 't' value was found to be 0.17 which is insignificant. The result thus clearly shows that there was no significant difference between the male and female teachers on the measure of fluency.

On flexibility the mean score of the male teachers was 29.43 and of female teachers 29.69 while their SDs were 8.11 and 9.09 respectively as presented in table 4.15. The difference between the two means was insignificant as the 't' value was 0.25.

It may be concluded that male and female teachers were similar on flexibility measure once again.

Comparison between male and female teachers on originality shows significant difference between the two groups. The mean scores of male and female teachers were 6.84 and 5.07 and SDs 8.01 and 6.32 respectively. The 't' value as presented in table 4.15 was 2.14 which is significant at 0.01 level. As such, it may be concluded that male teachers with their significantly higher mean score possessed significantly greater originality than female teachers.

As can be seen from table 4.15 on the measure of total creativity, the mean scores of male and female teachers were 73.71 and 72.43 and their respective SDs were 22.04 and 24.67. When the 't' value
was calculated to find out the significance of difference between the means of the two groups, the 't' value was found to be 0.46 which is insignificant.

The result thus clearly shows that there was no significant difference between the male and female teachers on the measure of total creativity.

**TABLE 4.16**

**Showing the significance of difference between the mean scores of male and female teachers on the measure of intelligence.**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Male Teachers</th>
<th></th>
<th>Female Teachers</th>
<th></th>
<th>'t' value</th>
<th></th>
<th>Level of significance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N = 133</td>
<td></td>
<td>N = 167</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mean S.D.</td>
<td></td>
<td>Mean S.D.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intelligence</td>
<td>25.85 5.49</td>
<td></td>
<td>26.28 7.60</td>
<td></td>
<td>0.54</td>
<td></td>
<td>NS</td>
</tr>
</tbody>
</table>

Table 4.16 reveals that on the measure of intelligence the means of male and female teachers were 25.85 and 26.28 and their corresponding SDs were found to be 5.49 and 7.60. The 't' value was found to be 0.54 which is insignificant.

The result thus indicates that there was once again no significant
difference between the male and female teachers on the measure of intelligence.

Comparisons were then made along the sixteen personality factors.

Table 4.17 shows the significant difference between the male and female teachers on 5 out of 16 personality attributes, these are (C) Affected by feelings vs. Emotionally stable, (H) Shy vs. Venturesome, (M) Practical vs. Imaginative, (Q2) Group dependent vs. Self sufficient, and (Q4) Relaxed vs. Tense.

On factor (C) Affected by feelings vs. Emotionally stable, there was a significant difference between the male and female teachers. The mean scores of the male and female teachers were 12.23 and 11.16, and their SDs were 3.18 and 3.14 respectively, showing significance at 0.01 level, with 't' value of 2.91.

The high scorers on this factor were emotionally stable, faces reality, calm and mature and the low scorers were affected by feelings, emotionally less stable and easily upset.

It can be inferred from the result that male teachers were emotionally stable, and faces reality while the female teachers were
TABLE 4.17

Showing the significance of difference between the mean scores of male and female teachers on sixteen personality factors.

<table>
<thead>
<tr>
<th>16 Personality Factors</th>
<th>Male Teachers N = 133</th>
<th>Female Teachers N = 167</th>
<th>'t' value</th>
<th>Level of significance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>S.D.</td>
<td>Mean</td>
<td>S.D.</td>
</tr>
<tr>
<td>A. Reserved - Outgoing</td>
<td>9.59</td>
<td>2.45</td>
<td>9.79</td>
<td>3.59</td>
</tr>
<tr>
<td>B. Less intelligent - More intelligent</td>
<td>6.60</td>
<td>2.56</td>
<td>6.96</td>
<td>2.47</td>
</tr>
<tr>
<td>C. Affected by feelings - Emotionally stable</td>
<td>12.23</td>
<td>3.18</td>
<td>11.16</td>
<td>3.14</td>
</tr>
<tr>
<td>E. Humble, mild - Assertive, independent</td>
<td>10.59</td>
<td>3.35</td>
<td>10.31</td>
<td>2.88</td>
</tr>
<tr>
<td>F. Sober - Happy-go-lucky</td>
<td>11.22</td>
<td>2.89</td>
<td>10.64</td>
<td>2.66</td>
</tr>
<tr>
<td>G. Expedient - Conscientious</td>
<td>10.94</td>
<td>3.10</td>
<td>10.41</td>
<td>3.07</td>
</tr>
<tr>
<td>H. Shy - Venturesome</td>
<td>12.08</td>
<td>3.66</td>
<td>11.01</td>
<td>2.95</td>
</tr>
<tr>
<td>I. Tough minded - Tender minded</td>
<td>10.15</td>
<td>2.69</td>
<td>9.58</td>
<td>2.61</td>
</tr>
<tr>
<td>L. Trusting - Suspicious</td>
<td>9.72</td>
<td>3.22</td>
<td>10.37</td>
<td>10.54</td>
</tr>
<tr>
<td>M. Practical - Imaginative</td>
<td>11.17</td>
<td>2.87</td>
<td>10.43</td>
<td>2.94</td>
</tr>
<tr>
<td>N. Fortright - Astute</td>
<td>10.23</td>
<td>2.73</td>
<td>9.93</td>
<td>2.43</td>
</tr>
<tr>
<td>O. Self assured - Apprehensive</td>
<td>11.18</td>
<td>2.99</td>
<td>10.99</td>
<td>3.01</td>
</tr>
<tr>
<td>Q1. Conservative - Experimenting</td>
<td>9.96</td>
<td>2.99</td>
<td>9.25</td>
<td>3.01</td>
</tr>
<tr>
<td>Q2. Group dependent - Self sufficient</td>
<td>10.36</td>
<td>3.08</td>
<td>9.61</td>
<td>2.78</td>
</tr>
<tr>
<td>Q3. Undisciplined - Controlled</td>
<td>10.03</td>
<td>3.03</td>
<td>9.85</td>
<td>2.85</td>
</tr>
<tr>
<td>Q4. Relaxed - Tense</td>
<td>12.31</td>
<td>3.00</td>
<td>11.34</td>
<td>3.40</td>
</tr>
</tbody>
</table>
affected by feelings, emotionally less stable and easily upset.

High score on factor (H) shows venturesome, and socially bold, the low score shy and restrained.

Table 4.17 clearly shows the significant difference between the mean scores of male and female teachers: the mean scores were 12.08 and 11.01 and SDs 3.66 and 2.95. The 't' value was 2.78 which is significant at 0.01 level. It may be concluded from these findings that male teachers were venturesome and socially bold, and female teachers were shy and restrained.

Factor (M) Practical vs. Imaginative. The high scorers were imaginative and careless of practical matters, low scorers were practical and careful.

Significant differences existed between the male and female teachers on factor (M), with their mean scores and SDs 11.17 and 2.87 and 10.43 & 2.94 respectively. The difference was significant at 0.01 level as the 't' value was 2.19. It can be said that male teachers were imaginative and careless of practical matters. Their counterparts i.e. the female teachers were practical and careful.

As indicated in table 4.17 Factor (Q2) on which the high scorers were counted as self sufficient and the low scorers as group
dependent, on this very factor male teachers had higher mean score than female teachers. The mean scores of male and female teachers were 10.36 & 9.61 and their SDs were 3.08 and 2.78 respectively. The 't' value was found to be 2.20 which is significant at 0.01 level.

It can be inferred from the result that male teachers were self sufficient while the female teachers were group dependent.

Factor (Q₄) indicates Relaxed vs. Tense. There was a significant difference between male and female teachers. The high scorers on this factor were tense and frustrated, the low scorers relaxed and unfrustrated. The mean scores of male and female teachers were 12.31 and 11.34 and their respective SDs were 3.00 and 3.40. The 't' value was 2.59 which is significant at 0.01 level.

It can be concluded that male teachers with their higher mean score were tense and frustrated while the female teachers with their lower mean scores were relaxed and unfrustrated.

4.5 COMPARISON BETWEEN THE HIGH FRUSTRATION MALE TEACHERS AND THE HIGH FRUSTRATION FEMALE TEACHERS

As may be seen from table 4.18 on the measure of regression the high frustration male teachers and the high frustration female
TABLE 4.18

Showing the significance of difference between the mean scores of the high frustration male teachers and the high frustration female teachers on the measure of frustration and its components.

<table>
<thead>
<tr>
<th>Variables</th>
<th>High Frustration Male Teachers (N = 42)</th>
<th>High Frustration Female Teachers (N = 58)</th>
<th>‘t’ Value</th>
<th>Level of significance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>S.D.</td>
<td>Mean</td>
<td>S.D.</td>
</tr>
<tr>
<td>Regression</td>
<td>29.23</td>
<td>4.70</td>
<td>31.70</td>
<td>6.36</td>
</tr>
<tr>
<td>Fixation</td>
<td>28.28</td>
<td>3.17</td>
<td>29.03</td>
<td>6.22</td>
</tr>
<tr>
<td>Resignation</td>
<td>26.50</td>
<td>3.99</td>
<td>28.10</td>
<td>4.41</td>
</tr>
<tr>
<td>Aggression</td>
<td>26.97</td>
<td>4.32</td>
<td>23.62</td>
<td>4.04</td>
</tr>
<tr>
<td>Total Frustration</td>
<td>111.00</td>
<td>6.99</td>
<td>112.46</td>
<td>8.45</td>
</tr>
</tbody>
</table>
teachers differed with moderate statistical significance. The mean scores of the high frustration male and high frustration female teachers were 29.23 and 31.70 and the SDs were 4.70 and 6.36 respectively. The 't' value was found to be 2.10 which is significant at 0.05 level.

It was therefore concluded that the high frustration female teachers scored significantly higher on the measure of regression than the high frustration male teachers.

As shown in table 4.18, the mean scores of the high frustration male and female teachers were also measured and compared on fixation and were found to be 28.28 and 29.03 and their SDs were 3.17 and 6.22 respectively. The 't' value was found to be 0.70 which is insignificant. It is inferred from the result that both the groups i.e. the high frustration male teachers and the high frustration female teachers were similar on the measure of fixation.

The mean scores of the high frustration male teachers and the high frustration female teachers were obtained and compared on the measure of resignation and were found to be 26.50 and 28.10 and their SDs were found to be 3.99 and 4.41 respectively. The 't' value was found to be 1.84 as can be seen from table 4.18 which is insignificant.
The result thus clearly shows that the high frustration female teachers were similar on the measure of resignation with the high frustration male teachers.

On aggression, too the high frustration male teachers and the high frustration female teachers differed quite significantly. As can be seen from table 4.18. The means of the high frustration male and female teachers were 26.97 and 23.62 while the SDs were 4.32 and 4.04 respectively. The 't' value showing the significance of difference between the two means was found to be 3.93 which is significant at 0.01 level. The result thus clearly show that the high frustration male teachers were more aggressive than the high frustration female teachers.

As shown in table 4.18 the mean scores of the high frustration male teachers and the high frustration female teachers were measured and compared on total frustration and were found to be 111.00 and 112.46 and their SDs were found to be 6.99 and 8.45 respectively. The 't' value was found to be 0.90 which is insignificant.

It was thus inferred from the result that both the high frustration male teachers and the high frustration female teachers were similar on the measure of total frustration.
The investigator then compared the same groups on the measure of creativity.

As given in table 4.19 when the high frustration male and female teachers were compared on the measure of fluency it was found that the mean scores of the high frustration male teachers was 38.19 and the mean score of the high frustration female teachers was 37.12 and SDs of these groups were found to be 10.10 and 10.85 respectively. For knowing the significance of difference between the two means, the means were put to 't' test and the 't' value was found to be 0.49 which is insignificant.

The result thus suggest that the high frustration male teachers and the high frustration female teachers were similar on the measure of fluency.

As can be seen from table 4.19, the mean scores of the high frustration male teachers and the high frustration female teachers on the measure of flexibility were 29.42 and 28.36 and their corresponding SDs were 8.33 and 7.26. The 't' value was computed to be 0.67 which is insignificant.

The result thus clearly indicated that there was no significant difference between the high frustration male teachers and the high
**TABLE 4.19**

Showing the significance of difference between the mean scores of the high frustration male teachers and the high frustration female teachers on the measure of creativity and its components.

<table>
<thead>
<tr>
<th>Variables</th>
<th>High Frustration Male Teachers N = 42</th>
<th>High Frustration Female Teachers N = 58</th>
<th>'t' Value</th>
<th>Level of significance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>S.D.</td>
<td>Mean</td>
<td>S.D.</td>
</tr>
<tr>
<td>Fluency</td>
<td>38.19</td>
<td>10.10</td>
<td>37.12</td>
<td>10.85</td>
</tr>
<tr>
<td>Flexibility</td>
<td>29.42</td>
<td>8.33</td>
<td>28.36</td>
<td>7.26</td>
</tr>
<tr>
<td>Originality</td>
<td>8.07</td>
<td>7.25</td>
<td>4.75</td>
<td>6.19</td>
</tr>
<tr>
<td>Total Creativity</td>
<td>75.69</td>
<td>20.98</td>
<td>70.24</td>
<td>21.11</td>
</tr>
</tbody>
</table>
frustration female teachers on the measure of flexibility.

As presented in table 4.19, the high frustration male teachers had a higher mean score i.e. 8.07 than the high frustration female teachers i.e. 4.75 on the measure of originality, and their SDs were found to be 7.25 and 6.19 respectively. The 't' value between the means of these groups was found 2.43, which is significant at 0.02 level.

Thus, the result provide a clear evidence that the high frustration male teachers were significantly higher on the measure of originality than the high frustration female teachers.

It is obvious from the table 4.19 that means of the high frustration male teachers and the high frustration female teachers on the measure of creativity were 75.69 and 70.24 respectively. Their corresponding SDs were 20.98 and 21.11. The obtained 't' value of 1.26 is insignificant. It is inferred from the result that both the groups i.e. the high frustration male teachers and the high frustration female teachers were not much different on the measure of total creativity.
### TABLE 4.20

Showing the significance of difference between the mean scores of the high frustration male teachers and the high frustration female teachers on the measure of intelligence.

<table>
<thead>
<tr>
<th>Variable</th>
<th>High Frustration Male Teachers $N = 42$</th>
<th>High Frustration Female Teachers $N = 58$</th>
<th>'t' value</th>
<th>Level of significance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>S.D.</td>
<td>Mean</td>
<td>S.D.</td>
</tr>
<tr>
<td>Intelligence</td>
<td>26.19</td>
<td>5.82</td>
<td>25.75</td>
<td>5.16</td>
</tr>
</tbody>
</table>

As shown in the table 4.20 sex differences were also investigated on the dimension of intelligence. The mean scores of the high frustration male teachers and the high frustration female teachers were found to be 26.19 and 25.75 and their SDs were found to be 5.82 and 5.16 respectively. The 't' value was found to be 0.38 which is non significant.

The result thus shows that the high frustration male teachers and the high frustration female teachers were again similar on the measure of intelligence.

Comparisons were then made along sixteen personality factors.
Table 4.21 shows the differences between the high frustration male teachers and the high frustration female teachers on sixteen personality factors. As can be seen from the table, the differences between the two groups were significant on 2 personality dimensions, designated as (F) Sober vs. Happy-go-lucky, (H) Shy vs. Venturesome.

On factor (F) Sober vs. Happy-go-lucky, also the high frustration male teachers and the high frustration female teachers exhibit significant difference between their means, the means being 11.69 and 10.58 and SDs 2.93 and 2.48 respectively, and the 't' value 2.01 which is significant at 0.05 level.

As the high scorers on this factor were characterised as happy go lucky, impulsively lively and enthusiastic and the low scorers as sober, serious and taciturn. The high frustration female teachers with their lower mean scores were serious, sober, and taciturn, while the high frustration male teachers with their higher mean scores were prone to be happy-go-lucky, impulsively lively and enthusiastic.

As can be seen from table 4.21, the high frustration male teachers and the high frustration female teachers had 12.80 and 11.10 as their mean scores on factor (H), designated as Shy vs. Venturesome and the SDs were 3.83 and 2.73 respectively. Since the 't' value was found
### TABLE 4.21

Showing the significance of difference between the mean scores of the high frustration male teachers and the high frustration female teachers on sixteen personality factors.

<table>
<thead>
<tr>
<th>16 Personality Factors</th>
<th>High Frustration Male Teachers</th>
<th>High Frustration Female Teachers</th>
<th>‘t’ value</th>
<th>Level of significance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>S.D.</td>
<td>Mean</td>
<td>S.D.</td>
</tr>
<tr>
<td>A. Reserved - Outgoing</td>
<td>9.26</td>
<td>2.58</td>
<td>9.36</td>
<td>2.97</td>
</tr>
<tr>
<td>B. Less intelligent - More intelligent</td>
<td>6.73</td>
<td>2.96</td>
<td>6.75</td>
<td>2.26</td>
</tr>
<tr>
<td>C. Affected by feelings - Emotionally stable</td>
<td>12.33</td>
<td>3.21</td>
<td>11.22</td>
<td>2.98</td>
</tr>
<tr>
<td>E. Humble, mild - Assertive, independent</td>
<td>11.09</td>
<td>3.27</td>
<td>10.44</td>
<td>2.58</td>
</tr>
<tr>
<td>F. Sober - Happy-go-lucky</td>
<td>11.69</td>
<td>2.93</td>
<td>10.58</td>
<td>2.48</td>
</tr>
<tr>
<td>G. Expedient - Conscientious</td>
<td>10.33</td>
<td>2.72</td>
<td>10.56</td>
<td>2.84</td>
</tr>
<tr>
<td>H. Shy - Venturesome</td>
<td>12.80</td>
<td>3.83</td>
<td>11.10</td>
<td>2.73</td>
</tr>
<tr>
<td>I. Tough, minded - Tender minded</td>
<td>10.59</td>
<td>2.76</td>
<td>9.93</td>
<td>2.73</td>
</tr>
<tr>
<td>L. Trusting - Suspicious</td>
<td>10.26</td>
<td>3.21</td>
<td>10.05</td>
<td>3.17</td>
</tr>
<tr>
<td>M. Practical - Imaginative</td>
<td>11.38</td>
<td>5.82</td>
<td>11.15</td>
<td>5.16</td>
</tr>
<tr>
<td>N. Fortright - Astute</td>
<td>10.09</td>
<td>2.80</td>
<td>10.44</td>
<td>2.27</td>
</tr>
<tr>
<td>O. Self assured - Apprehensive</td>
<td>11.64</td>
<td>3.13</td>
<td>11.70</td>
<td>3.12</td>
</tr>
<tr>
<td>Q1. Conservative - Experimenting</td>
<td>9.73</td>
<td>2.74</td>
<td>9.44</td>
<td>2.82</td>
</tr>
<tr>
<td>Q2. Group dependent - Self sufficient</td>
<td>10.26</td>
<td>3.02</td>
<td>9.93</td>
<td>2.96</td>
</tr>
<tr>
<td>Q3. Undisciplined - Controlled</td>
<td>9.71</td>
<td>2.77</td>
<td>9.86</td>
<td>2.60</td>
</tr>
<tr>
<td>Q4. Relaxed - Tense</td>
<td>12.40</td>
<td>2.72</td>
<td>11.94</td>
<td>3.31</td>
</tr>
</tbody>
</table>
to be 2.56, the difference between the means of the two groups was significant at 0.02 level.

On this personality dimension, high scores represent venturesome, socially bold and spontaneous. The low scores on the other hand stand for shy, restrained and timid characteristics of personality. Since the mean score of the high frustration male teachers was higher than that of the high frustration female teachers, it can be concluded that the high frustration male teachers were more inclined to be venturesome, socially bold and spontaneous while the high frustration female teachers with their low mean score were more prone to be shy, restrained and timid.

On the rest fourteen factors, the difference between the two groups were statistically insignificant.

4.6 COMPARISON BETWEEN THE LOW FRUSTRATION MALE TEACHERS AND THE LOW FRUSTRATION FEMALE TEACHERS

As can be seen from table 4.22 on the measure of regression the mean scores of the low frustration male teachers and the low frustration female teachers were 20.93 and 23.71 and the respective SDs were 5.67 and 5.10. When the 't' value was calculated to find
**TABLE 4.22**

Showing the significance of difference between the mean scores of the low frustration male teachers and the low frustration female teachers on the measure of frustration and its components.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Low Frustration Male Teachers N = 43</th>
<th>Low Frustration Female Teachers N = 57</th>
<th>‘t’ Value</th>
<th>Level of significance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>S.D.</td>
<td>Mean</td>
<td>S.D.</td>
</tr>
<tr>
<td>Regression</td>
<td>20.93</td>
<td>5.67</td>
<td>23.71</td>
<td>5.10</td>
</tr>
<tr>
<td>Fixation</td>
<td>19.86</td>
<td>4.75</td>
<td>21.52</td>
<td>4.97</td>
</tr>
<tr>
<td>Resignation</td>
<td>16.30</td>
<td>4.98</td>
<td>14.75</td>
<td>5.42</td>
</tr>
<tr>
<td>Aggression</td>
<td>18.02</td>
<td>4.59</td>
<td>17.80</td>
<td>5.86</td>
</tr>
<tr>
<td>Total Frustration</td>
<td>75.11</td>
<td>10.15</td>
<td>77.80</td>
<td>8.55</td>
</tr>
</tbody>
</table>
out the significance of difference between the means of the two groups, the 't' vale was found to be 2.55 which is significant at 0.02 level.

The result thus shows that the low frustration female teachers scored significantly higher than the low frustration male teachers on the measure of regression.

In the case of the fixation as can be seen from table 4.22 the low frustration male teachers had a mean score of 19.86 and their SD was 4.75 while the low frustration female teachers' mean score was found to be 21.52 and SD 4.97. The 't' value was computed to be 1.67 which is insignificant.

It can be concluded from the result that the low frustration female teachers and the low frustration male teachers were similar on the measure of fixation.

As shown in table 4.22 the mean scores of the low frustration male teachers and the low frustration female teachers on the measure of resignation were 16.30 and 14.75 and their SDs were found to be 4.98 and 5.42 respectively. These two means were put to 't' test for knowing the significance of difference between the two means. The 't' value was found to be 1.44 which is non significant.
The result thus showed that the low frustration male teachers and the low frustration female teachers were similar on the measure of resignation.

When the comparisons were made between the low frustration male teachers and the low frustration female teachers on the measure of aggression as shown in table 4.22 they yielded mean scores as 18.02 and 17.80 respectively. While their SDs were 4.59 and 5.86. The 't' value was found to be 0.19 which is insignificant.

A single look at table 4.22 provides a clear evidence that no significant difference was found between the means of the low frustration male teachers and the low frustration female teachers on the measure of aggression.

Table 4.22 reveals that on the measure of total frustration the means of the low frustration male teachers and the low frustration female teachers were 75.11 and 77.80 and their corresponding SDs were found to be 10.15 and 8.55. The 't' value was found to be 1.42 which is insignificant.

The result thus clearly indicates that both the groups i.e. the low frustration male teachers and the low frustration female teachers were again similar on the measure of total frustration.
The same groups were then compared on **creativity**.

As can be seen from table 4.23 that on the measure of fluency the mean scores of the low frustration male teachers and the low frustration female teachers were found to be 36.09 and 38.24 and their respective SDs were 11.07 and 13.94. When the 't' value was calculated to find out the significance of difference between the two groups, the 't' value was found to be 0.82 which is insignificant.

The result thus clearly indicate that the two groups i.e. the low frustration male teachers and the low frustration female teachers do not differ significantly on the measure of fluency.

As presented in table 4.23 comparisons were made on the measure of flexibility and it was found that the mean scores of the low frustration male teachers and the low frustration female teachers were found to be 28.86 and 30.61 and their respective SDs were 8.73 and 10.33. The 't' value was found to be 0.88 which is insignificant.

The result thus clearly showed that both the low frustration male teachers and the low frustration female teachers were similar once again on the measure of flexibility.
TABLE 4.23

Showing the significance of difference between the mean scores of the low frustration male teachers and the low frustration female teachers on the measure of creativity and its components.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Low Frustration Male Teachers N = 43</th>
<th>Low Frustration Female Teachers N = 57</th>
<th>'t' Value</th>
<th>Level of significance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>S.D.</td>
<td>Mean</td>
<td>S.D.</td>
</tr>
<tr>
<td>Fluency</td>
<td>36.09</td>
<td>11.07</td>
<td>38.24</td>
<td>13.94</td>
</tr>
<tr>
<td>Flexibility</td>
<td>28.86</td>
<td>8.73</td>
<td>30.61</td>
<td>10.33</td>
</tr>
<tr>
<td>Originality</td>
<td>4.02</td>
<td>6.15</td>
<td>5.31</td>
<td>7.09</td>
</tr>
<tr>
<td>Total Creativity</td>
<td>68.97</td>
<td>22.25</td>
<td>74.17</td>
<td>27.52</td>
</tr>
</tbody>
</table>
Table 4.23 reveals that the means of the low frustration male teachers and the low frustration female teachers on the measure of originality were found to be 4.02 and 5.31 and their corresponding SDs were 6.15 and 7.09. The 't' value was calculated to find out the significance of difference between the means of the two groups, the 't' value was found to be 0.94 which is insignificant.

It was inferred from the result that no significant difference was found to exist between the low frustration male teachers and the low frustration female teachers on the measure of originality.

On the measure of total creativity as can be seen from table 4.23, the mean scores of the low frustration male teachers and the low frustration female teachers were found to be 68.97 and 74.17 and their respective SDs were 22.25 and 27.52. The 't' value of 1.00 was obtained which is insignificant.

A single look at table 4.23 provides a clear evidence that no significant difference was found between the means of the low frustration male teachers and the low frustration female teachers on the measure of total creativity.
**TABLE 4.24**

Showing the significance of difference between the mean scores of the low frustration male teachers and the low frustration female teachers on the measure of intelligence.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Low Frustration Male Teachers N = 43</th>
<th>Low Frustration Female Teachers N = 58</th>
<th>'t' value</th>
<th>Level of significance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean S.D.</td>
<td>Mean S.D.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intelligence</td>
<td>25.06 4.79</td>
<td>27.26 6.28</td>
<td>1.88</td>
<td>NS</td>
</tr>
</tbody>
</table>

Table 4.24 shows that on the measure of intelligence the mean scores of the low frustration male teachers and the low frustration female teachers were found to be 25.06 and 27.26 and their SDs were 4.79 and 6.28 respectively. The 't' value was found to be 1.88 which is insignificant.

Thus it can be inferred from the result that both the low frustration male teachers and the low frustration female teachers were similar on the measure of intelligence.

When the comparisons were made on personality characteristics as can be seen from table 4.25, the low frustration
male teachers, differed significantly from the low frustration female
teachers on the three personality factors namely (I) Tough minded
vs. Tender minded, (M) Practical vs. Imaginative and (Q) Relaxed
vs. Tense.

As for (I) factor Tough minded vs. Tender minded, on which
high scores represent tender minded, dependent and sensitive, and
the low scores tough minded, self reliant and realistic.

The low frustration male teachers had 10.31 as their mean score
with an SD of 2.73. The low frustration female teachers, on the other
hand, had a lower mean score 9.10 with an SD of 2.82. The 't' value
was found to be 2.10 which is significant at 0.05 level.

It can be concluded that the low frustration male teachers were
more tender minded, dependent and sensitive and conversely the low
frustration female teachers were more tough minded, self reliant and
realistic than their counterparts the low frustration male teachers.

On factor (M) Practical vs. Imaginative, on which the high
scorers were prone to be imaginative and careless of practical matters
and the low scorers practical and careful personality characteristics.
The means of the low frustration male teachers and the low frustration
female teachers were 11.09 and 9.84 while the SDs were 3.17 and
TABLE 4.25

Showing the significance of difference between the mean scores of the low frustration male teachers and the low frustration female teachers on sixteen personality factors.

<table>
<thead>
<tr>
<th>16 Personality Factors</th>
<th>Low Frustration Male Teachers</th>
<th>Low Frustration Female Teachers</th>
<th>‘t’ value</th>
<th>Level of significance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean (N = 43)</td>
<td>S.D.</td>
<td>Mean (N = 57)</td>
<td>S.D.</td>
</tr>
<tr>
<td>A. Reserved - Outgoing</td>
<td>10.00</td>
<td>2.26</td>
<td>9.94</td>
<td>3.94</td>
</tr>
<tr>
<td>B. Less intelligent - More intelligent</td>
<td>7.27</td>
<td>2.19</td>
<td>7.07</td>
<td>2.70</td>
</tr>
<tr>
<td>C. Affected by feelings - Emotionally stable</td>
<td>12.04</td>
<td>3.07</td>
<td>11.56</td>
<td>3.46</td>
</tr>
<tr>
<td>E. Humble, mild - Assertive, independent</td>
<td>10.72</td>
<td>3.49</td>
<td>9.94</td>
<td>3.01</td>
</tr>
<tr>
<td>F. Sober - Happy-go-lucky</td>
<td>10.90</td>
<td>2.66</td>
<td>10.38</td>
<td>2.83</td>
</tr>
<tr>
<td>G. Expedient - Conscientious</td>
<td>11.62</td>
<td>3.35</td>
<td>10.54</td>
<td>3.28</td>
</tr>
<tr>
<td>H. Shy - Venturesome</td>
<td>11.51</td>
<td>3.20</td>
<td>11.19</td>
<td>2.95</td>
</tr>
<tr>
<td>I. Tough minded - Tender minded</td>
<td>10.31</td>
<td>2.73</td>
<td>9.10</td>
<td>2.82</td>
</tr>
<tr>
<td>L. Trusting - Suspicious</td>
<td>9.30</td>
<td>2.88</td>
<td>11.66</td>
<td>17.49</td>
</tr>
<tr>
<td>M. Practical - Imaginative</td>
<td>11.09</td>
<td>3.17</td>
<td>9.84</td>
<td>2.79</td>
</tr>
<tr>
<td>N. Fortright - Astute</td>
<td>10.53</td>
<td>2.77</td>
<td>9.56</td>
<td>2.73</td>
</tr>
<tr>
<td>O. Self assured - Apprehensive</td>
<td>11.18</td>
<td>2.67</td>
<td>10.28</td>
<td>2.59</td>
</tr>
<tr>
<td>Q1. Conservative - Experimenting</td>
<td>10.06</td>
<td>3.09</td>
<td>9.52</td>
<td>2.48</td>
</tr>
<tr>
<td>Q2. Group dependent - Self sufficient</td>
<td>10.39</td>
<td>3.25</td>
<td>9.47</td>
<td>2.79</td>
</tr>
<tr>
<td>Q4. Relaxed - Tense</td>
<td>11.93</td>
<td>3.28</td>
<td>10.22</td>
<td>3.13</td>
</tr>
</tbody>
</table>
2.79 respectively. The 't' value showing the significance of difference between the two means had been found to be 2.06 which is significant at 0.05 level.

The result thus clearly brings out that the low frustration male teachers were more imaginative and careless of practical matters than the low frustration female teachers, while the later were practical and careful.

On factor represented by the letter (Q_a) with the two poles designated as Relaxed vs Tense, the high scores represent tense and frustrated while the low scores represent relaxed and unfrustrated. The mean scores of the low frustration male teachers and the low frustration female teachers were 11.93 and 10.22 and their SDs were 3.28 and 3.13 respectively. The 't' value was found to be 2.60 as can be seen from table 4.25 which is significant at 0.02 level.

Since the mean score of the low frustration male teachers was significantly greater than that of the low frustration female teachers, it was concluded that the low frustration male teachers were less inclined to be relaxed and unfrustrated, while the low frustration female teachers were more inclined to be relaxed and unfrustrated.
On rest of personality factors the differences between the two groups were insignificant.

The results thus presented in this chapter are discussed in the next chapter.
CHAPTER - V

DISCUSSION
DISCUSSION

A perusal of the chapter of analysis would reveal that the target sample was divided into two statistically distanced groups of high frustration and low frustration cases among the school teachers for comparison purposes along creativity, intelligence and different personality factors.

So far as intelligence is concerned, as can be seen from table Nos. 4.4 & 4.16 there being no significant difference between the means of male and female teachers as well as the high frustration and the low frustration groups, it is thus reasonably accounted for or controlled. As such further explorations would be only to find out, with reference to frustration, the predictability of creativity and its components i.e. fluency, flexibility and originality and the personality characteristics.

5.1 RESULTS ON FRUSTRATION:

The results give a clear evidence of the existence of frustration among the teachers in schools where atleast 2/3 population is highly or moderately frustrated. Regarding the frustration in male and female teachers the study yielded quite interesting results. On one side, both
the male and female teachers were found to be almost equally frustrated with no significant difference but in aggression the male teachers were found to be markedly more aggressive than their female counterparts while on regression the female teachers were found to be more regressive than the male teachers as can be seen from table No. 4.14. The result is very much in consonance with the nature of the two sexes. It is our every day experience that the male are more aggressive and female more regressive in their behaviour in general. Thus the result is quite interesting and at the same time not very much surprising, as it is also corroborated by Malviya (1978), Sharma (1981), Singh (1987), Blix, Arlene, Gray, Cruise & Mitchell (1994). As such the first hypothesis of the investigator "both among the male and female teachers quite a large number will be found feeling frustrated at the secondary school level experiencing frustration of different magnitude" stands confirmed.

5.2 RESULTS ON FRUSTRATION AND CREATIVITY:

When the high frustration and the low frustration groups were compared sex wise, it was found that the high frustration male teachers were significantly different from the low frustration
counterparts on a very important factor of originality on the creativity variable, as can be seen from table No. 4.7, evidencing a very interesting phenomenon - the greater the originality higher the frustration: and this is very much understandable in the sense that the obstacles blocking the greater inner creative forces would certainly make the man more frustrated. As such the second hypothesis of the investigator "that the teachers with greater creative potential would be feeling more frustrated than those with lesser creative urge" also stands partly confirmed as the difference has been found only on originality component of creativity.

5.3 RESULTS ON PERSONALITY CHARACTERISTICS:

The results presented in table No. 4.5 relating to personality differences of the high and low frustration groups certainly give some indication of the accountability of certain personality characteristics i.e. on M, O & Q₄ factors. Thus quite in coherence with the results on originality it has been found that the more imaginative (M), more apprehensive (O) and more tense (Q₄) teachers, in general, including both the male and female teachers are quite naturally and understandably more frustrated also, while the less imaginative (M), less apprehensive (O), and less tense (Q₄) characterize the low
frustration group. The results on creativity and personality characteristics seem to be quite helpful in recognising almost a natural precept: higher the power of imagination and creativity higher the level of frustration - if thwarted externally. Thus there being a sort of inner correspondence between the trends of results on creativity and certain personality factors, the findings on personality characteristics become quite reliably more understandable. Thus the third hypothesis, "certain personality factors may also be found exerting their influence on different magnitude of frustration among teachers" of the present investigator also stands quite reasonably confirmed.

5.4 RESULTS ON SEX DIFFERENCES ALONG CREATIVITY AND PERSONALITY CHARACTERISTICS:

As for the sex differences on creativity or its components a markedly significant difference was found between male teachers and female teachers on one component of creativity i.e. originality as can be seen from table No. 4.15. The male teachers in general were found to be possessing a far higher level of originality than that of the female teachers. The sex difference is more sharply occurring when the male and female teachers are compared in the high frustration group as can be seen from table No. 4.19 the difference becoming
still higher internally validate the result discussed above. Once again
a kind of coherence is found between the results on frustration and
creativity along the line of sex differences also. It is quite interesting
to note that the male teachers are more original than their female
counterparts. The result may not be that pleasing to the latter ones,
but it is quite difficult to deny that much of the original work done in
any field of arts and literature, religion and philosophy, science and
architecture, just for example, along the whole span of history belongs
to the male. As such the fourth hypothesis relating to creativity is
atleast partly confirmed - partly because the difference occurs only
on one component of creativity i.e. originality.

When the sex differences are explored along the personality
characteristics of male and female teachers the differences occur
quite frequently when comparisons are made between the total male
and female teachers i.e. on five personality factors namely C, H, M,
Q₂ & Q₄ as can be seen from table No. 4.17, meaning by which that
the male teachers in comparison to the female teachers are emotionally
more stable (C), venturesome (H) and imaginative (M). They are also
more self sufficient (Q₂) and tense (Q₄) than their female counterparts.
These personality differences are not surprising in the sense that in
our own life experiences men are found to be more stable, courageous, and thoughtful than their female counterparts. Once again it may be humbly submitted that the males have generally exhibited at all occasions of acid test greater control of emotion, greater courage, and they have also acted more thoughtfully than their female counterparts be it a home situation or a challenge in the battle fields.

These results are also corroborated by Jayaswal (1977), Narula (1978), Kumari (1981), Som (1984), LeVerne (1985) etc. Personality differences have also been found between the male and female teachers with both the high frustration and the low frustration groups, more so with the low frustration groups. In the high frustration group the male cases have again been found to be venturesome and enthusiastic thus further strengthening the general sex differences discussed above.

In the low frustration group, as can be seen from table No. 4.25, the personality differences are a bit different from the high frustration group yet intensifying and internally validating the results of sex differences in general. Thus again the male cases are found to be more imaginative (M) and tense (Q₄) but at the same time also quite sensitive (I). As such the high frustration group and the low frustration
group have their own distinctive characteristics. When all the personality differences are taken together they give a clear evidence of the role of personality characteristics distinguishing the male and female teachers in general, and the high frustration and the low frustration male and female teachers in particular. As such it may be said safely that the fourth hypothesis of the present investigator "in the case of male and female teachers there may appear sex differences both on creativity and personality characteristics" also stands confirmed.

In the light of the discussion, given above, it may be submitted that the present exploratory study of the investigator humbly provides atleast some solid ground to serve as a threshold for further explorations about teachers' frustration and its causal factors; opening thus up quite new vestibules to the vistas of knowledge.

The summary of the findings is presented in the following chapter.
"The destiny of India is now being shaped in her classrooms."

Indian Education Commission (1964-66)

The purpose of the present investigator was primarily to identify the magnitude of frustration among teachers in relation to creativity and certain personality factors. There is no gainsaying that the welfare and prosperity of a nation depends on its natural and human resources, human resource is perhaps more important than the natural resource because the later can only be profitably utilised if the former is efficient. Thus human resource is of paramount importance for the progress of a country. The teacher being a catalytic agent in the process of education, dispenses knowledge, forms the time schedule, selects reading material, plays the role of subject specialist and helps pupils to overcome their difficulties and personal problems. If the teacher is frustrated it can hardly be imagined how much damage shall it cause to the progress of the new generation or the future citizens.
Success of students in any course depends on the effectiveness of teachers. However, the entire structure of education is unsteady if the teacher is weak and ineffective. There appears to be a general agreement on the fact that educational attainment of children depends to a large extent on the attitude of the teachers towards their profession. It is largely true that the professional performance of the teacher is indirectly related to his profession. If he has a wholesome attitude towards his profession he teaches with interest, takes pains and makes efforts and even sacrifices his personal comfort and ambition to be a good teacher. It will be his utmost effort to see that his students not only make progress in academic field but also in other aspects of life. Naturally a teacher with favourable attitude towards his profession would produce the right type of youths, while the one with an unfavourable attitude towards the profession would produce unbalanced personalities.

There is a feeling among some people and even among a section of teachers also that people enter this profession with hope, enthusiasm and vigour, but something either in the system of education itself or the social and economic environment of the school demoralize them, reduce their interest and produce psychologically unfavourable attitude towards this profession. If the attitude of
teacher towards his profession is such an important factor, a study of it will be useful and of great practical value to those concerned with education.

Few attempts have also been made to identify the causes of frustration among teachers. Some of the attempts made in this regard are: Cooper, 1986, Capel, 1987; Manthei & Soleman, 1988; O Conor & Clarke, 1990; Pierce & Molloy, 1990; Sahni & Chadha, 1991; Smith & Bourke, 1992; Tuetteman & Punch, 1992; Friedman, Boyle, Borg, Falzon and Baglioni, 1995; Manthei, Gilmore, Tuck & Adair, 1996; Dussault, Deaudelin, Royer & Loiselle, 1999; Weisberg & Sagie, 1999.

The present study in specific terms is therefore, "A Study of Frustration Among Teachers in Relation to Creativity and Certain Personality Factors."

6.1 OBJECTIVES OF THE STUDY:

The present work has thus been carried out with the following objectives:

(1) To find out the extent of frustration among the male and female teachers at the secondary school level.
(2) To identify statistically the relationship between frustration and creativity and its components i.e. fluency, flexibility and originality.

(3) To find out if certain personality factors may be accountable for frustration among teachers.

(4) To explore if there were any sex differences along creativity and personality characteristics, among the male and female secondary school teachers.

6.2 HYPOTHESES OF THE STUDY:

The hypotheses formulated for the present study were as under:

(1) Both among the male and female teachers quite a considerable number will be found to be feeling frustrated at the secondary school level - experiencing frustration of different magnitude.

(2) It is expected that the teachers with greater creative potential would be feeling more frustrated than those with lesser creative urge.

(3) Certain personality factors may also be found exerting their influence on different magnitude of frustration among teachers.

(4) In the case of male and female teachers there may appear sex
differences both on creativity and personality characteristics.

6.3 SAMPLE:

The present study was conducted on a sample of 300 teachers from eight secondary schools of Aligarh city.

6.4 TOOLS:

In the present investigation the investigator employed the following standard tools and measures.

(1) Frustration test developed by N.S. Chauhan & G.P. Tiwari.

(2) Hindi version of Baqer Mehdi's verbal test of creative thinking.

(3) The culture fair intelligence test (scale 2) by R.B. Cattell and A.K.S. Cattell.

(4) R.B. Cattell's sixteen personality factor questionnaire (form A) covering sixteen personality dimensions (16 PF).

6.5 PAIRS OF GROUPS COMPARED:

Following were the six groups formulated for comparison on different variables.

(i) High frustration group vs. Low frustration group.

(ii) High frustration male teachers vs. Low frustration male teachers.
(iii) High frustration female teachers vs. Low frustration female teachers.

(iv) Male teachers vs. Female teachers.

(v) High frustration male teachers vs. High frustration female teachers.

(vi) Low frustration male teachers vs. Low frustration female teachers.

6.6 **FINDING SIGNIFICANCE OF DIFFERENCE:**

The 't' test was employed to find out the significance of difference between the six pairs of groups. The results of the 't' test have been presented in the tables 4.1 - 4.25.

6.7 **CONCLUSIONS:**

The findings of the present investigation may be summarized as follows:

(1) The high frustration group was found to be higher on regression, fixation, resignation, aggression and total frustration than the low frustration group.

(2) There was no significant difference between the high frustration group and the low frustration group on the measure of fluency,
flexibility, originality and total creativity.

(3) The high frustration group and the low frustration group were similar on the measure of intelligence.

(4) The high frustration group was found to be imaginative (M), apprehensive (O), and tensed (Q₄). Low frustration group was found to be practical, self assured and relaxed.

(5) High frustration male teachers were significantly higher on regression, fixation, resignation, aggression and total frustration than the low frustration male teachers.

(6) High frustration male teachers scored higher than the low frustration male teachers on the measure of originality. But on fluency, flexibility and total creativity they were similar.

(7) The high frustration male teachers and the low frustration male teachers were almost similar on the measure of intelligence.

(8) No significant difference was found between the high frustration male teachers and the low frustration male teachers on sixteen personality factors.

(9) The high frustration female teachers were found to be higher on regression, fixation, resignation, aggression and total
frustration than the low frustration female teachers.

(10) There was no significant difference between the high frustration female teachers and the low frustration female teachers on the measure of fluency, flexibility, originality and total creativity.

(11) Both the groups i.e. the high frustration female teachers and the low frustration female teachers were similar on the measure of intelligence.

(12) The high frustration female teachers were found to be imaginative (M), shrewd and calculating (N), apprehensive (O), and tense (Q₄) while the low frustration female teachers were found to be practical, natural, self assured and relaxed.

(13) Female teachers had significantly greater regression than the male teachers.

(14) Male teachers had significantly greater aggression than the female teachers.

(15) Male and female teachers were similar on the measure of fixation, resignation and total frustration.

(16) Both the male and female teachers were similar on the measure of fluency, flexibility and total creativity.
(17) On the measure of originality male teachers scored significantly higher than the female teachers.

(18) There was no significant difference between the male and female teachers on the measure of intelligence.

(19) Male teachers were found to be emotionally stable (C), venturesome (H), imaginative (M), self sufficient (Q₂), and tense (Q₄). Female teachers were found to be affected by feelings, shy, practical, group dependent and relaxed.

(20) High frustration female teachers were found to be higher on regression.

(21) The high frustration male teachers were more aggressive than the high frustration female teachers.

(22) On the measure of fixation, resignation and total frustration both the groups i.e. the high frustration male teachers and the high frustration female teachers were almost similar.

(23) The high frustration male teachers and the high frustration female teachers were not significantly different on the measure of fluency, flexibility and total creativity.
(24) High frustration male teachers were significantly higher on the measure of originality than the high frustration female teachers.

(25) High frustration male teachers and the high frustration female teachers were almost similar on the measure of intelligence.

(26) High frustration male teachers were found to be happy go lucky (F), venturesome (H). High frustration female teachers were found to be sober and shy.

(27) The low frustration female teachers scored significantly higher than the low frustration male teachers on the measure of regression.

(28) There was no significant difference between the low frustration male teachers and the low frustration female teachers on the measure of fixation, resignation, aggression and total frustration.

(29) Both the groups i.e. the low frustration male teachers and the low frustration female teachers were not much different on the measure of fluency, flexibility, originality and total creativity.

(30) The low frustration male teachers and the low frustration female teachers were once again almost similar on the measure of intelligence.
(31) The low frustration male teachers were found to be tender minded (I), imaginative (M) and tensed (Q). Low frustration female teachers were found to be tough minded, practical and relaxed.

6.8 Suggestions:

The investigator would like to submit her humble suggestions in the light of her experience and the results of the present study.

(1) The teachers' personality characteristics being only partly and moderately responsible for the feeling of frustration among teachers. The causal factors may be explored in such external phenomena as the social climate of the schools, work load, interactional patterns between the teachers and children, teachers and administrators, and teachers and parents.

(2) For the committed teachers, the slow progress of children including the problems of motivating them to learn and insufficient time to perform necessary teaching tasks, may also be a very interesting field for further explorations.

(3) Poor salaries and lack of recognition in the society affecting the job satisfaction can also be a provoking subject for a researcher in the field of teachers' frustration.
(4) The magnitude of frustration may be comparatively studied at different levels of education e.g. primary, secondary and the university level.

(5) The extent of frustration and their causal factors may quite profitably be identified and compared in different professional courses also like among the teachers of IIT, engineering colleges, medical colleges and teacher training institutions etc.

(6) Experimental studies may be conducted involving the control groups to find out effective remedial measures for at least minimizing the damaging effects of frustration among teachers both on their health and level of performance.

6.9 **EDUCATIONAL IMPLICATIONS:**

Frustration among teachers is a vitally important topic in the teaching profession because it has been found to be increasingly affecting not only the health of the teachers but also their work performance resulting in lowering of the standards of education as reported by Pithers and Fogarty (1995). Quite understandably if the causal factors of frustration among teachers are reliably identified and the remedial measures are experimented upon and adopted in the real situations it would not only -
(i) relieve the teachers at different levels of education, of their mental tension causing unnecessary anxiety, stress and frustration; (ii) but also raise their standard of teaching performance; (iii) and the levels of students learning resulting in a continuous rise in the curve of educational standards not only in India but throughout the world.
BIBLIOGRAPHY
BIBLIOGRAPHY


Cockburn, A.D. (1996). Primary Teachers' Knowledge and Acquisition of Stress Relieving Strategies. British Journal of


APPENDICES
नेहाइय मापा
(FRUSTRATION TEST)

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TIWARI KOTHI, BELANGANJ, AGRA—4
<table>
<thead>
<tr>
<th>सुर</th>
<th>अद्वितीय पद</th>
<th>अद्वितीय पद</th>
<th>साधारण पद</th>
<th>कम पद</th>
<th>बहुत कम पद</th>
<th>बिल्कुल पद</th>
</tr>
</thead>
<tbody>
<tr>
<td>५</td>
<td>हर काम में घर के लोगों को सलाह और सहायता प्रदान, तथा उसी तरह काम करता मुझे***</td>
<td>बहुत अद्वितीय पद</td>
<td>अद्वितीय पद</td>
<td>साधारण पद</td>
<td>कम पद</td>
<td>बिल्कुल अद्वितीय पद</td>
</tr>
<tr>
<td>६</td>
<td>किसी के बादाम में एक दफा कोई धारणा बना लेने पर उसे बदलने में मुझे****</td>
<td>बहुत अद्वितीय जीवन अनुभव है</td>
<td>अद्वितीय जीवन अनुभव है</td>
<td>साधारण जीवन अनुभव है</td>
<td>कम जीवन अनुभव है</td>
<td>बिल्कुल जीवन अनुभव नहीं है</td>
</tr>
<tr>
<td>७</td>
<td>'मानुष के जीवन में दुख नहीं है' यह कहना*****</td>
<td>बहुत अद्वितीय जीवन अनुभव है</td>
<td>अद्वितीय जीवन अनुभव है</td>
<td>साधारण जीवन अनुभव है</td>
<td>कम जीवन अनुभव है</td>
<td>बिल्कुल जीवन अनुभव नहीं है</td>
</tr>
<tr>
<td>८</td>
<td>जब लोग काम कर रहे बड़े भी नहीं मानते, तब मुझे कोई राघव....</td>
<td>बहुत अद्वितीय जीवन अनुभव है</td>
<td>अद्वितीय जीवन अनुभव है</td>
<td>साधारण जीवन अनुभव है</td>
<td>कम जीवन अनुभव है</td>
<td>बिल्कुल जीवन अनुभव नहीं है</td>
</tr>
<tr>
<td>९</td>
<td>मैं हृदयों पर विवाह****</td>
<td>बहुत अद्वितीय काम करता है</td>
<td>अद्वितीय काम करता है</td>
<td>साधारण काम करता है</td>
<td>कम काम करता है</td>
<td>बिल्कुल काम नहीं करता</td>
</tr>
<tr>
<td>१०</td>
<td>परिस्थितियों के बदलने पर मानुष को अपना लघुस्वाद भी बदल लेना चाहिए, किंतु मुझे परिस्थितियों के बदलने के बारे में***</td>
<td>बहुत अद्वितीय काम करता है</td>
<td>अद्वितीय काम करता है</td>
<td>साधारण काम करता है</td>
<td>कम काम करता है</td>
<td>बिल्कुल काम नहीं करता</td>
</tr>
<tr>
<td>११</td>
<td>&quot;यह जीवन मुफ्त नहीं है&quot;, इस काम से मी****</td>
<td>बहुत अद्वितीय सहमति है</td>
<td>अद्वितीय सहमति है</td>
<td>साधारण सहमति नहीं है</td>
<td>कम सहमति है</td>
<td>बिल्कुल सहमति नहीं है</td>
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[१२] चुरौंधार, बेचड़क नेता, बनना मुके.....

बहुत अधिक पसंद है। ( )
अधिक पसंद है। ( )
साधारण पसंद है। ( )
कम पसंद है। ( )
बहुत कम पसंद है। ( )
बिलकुल पसंद नहीं है। ( )

[१३] अपने सच्चन के दिनों की याद मुझे.....

बहुत अधिक आती है। ( )
अधिक आती है। ( )
साधारण राती है। ( )
कम आती है। ( )
बहुत कम आती है। ( )
बिलकुल नहीं आती। ( )

[१५] बिच्छे जीवन की कुछ घटनयाँ जुलाये नहीं पूरली भंगता है, वे फल ही हुई हों। मेरे दिमाग में वे.....

बहुत अधिक पृथ्वी रहती है। ( )
अधिक पृथ्वी रहती है। ( )
साधारण पृथ्वी रहती है। ( )
कम पृथ्वी रहती है। ( )
बहुत कम पृथ्वी रहती है। ( )
बिलकुल नहीं पूरली है। ( )

[१६] दुक्की और एकदम निराश भक्ति के मन में आर्तमहत्त्व की बात.....

बहुत अधिक आती है। ( )
अधिक आती है। ( )
साधारण आती है। ( )
कम आती है। ( )
बहुत कम आती है। ( )
बिलकुल नहीं आती है। ( )

[१६] चमालान मुड़ करने वाले कुंकुम लड़ाई बोटा मुखी.....

बहुत अधिक पसंद है। ( )
अधिक पसंद है। ( )
कम पसंद है। ( )
साधारण पसंद है। ( )
बहुत कम पसंद है। ( )
बिलकुल पसंद नहीं है। ( )

[१७] खेलना, दूरना और बच्चों जैसी बेचिरी मुखे

बहुत अधिक पसंद है। ( )
अधिक पसंद है। ( )
साधारण पसंद है। ( )
कम पसंद है। ( )
बहुत कम पसंद है। ( )
बिलकुल पसंद नहीं है। ( )

[१८] दोस्त यदि वार-बार दोखा देता रहे, मैं बदरश फरता रहता हूँ, क्योंकि दोस्तों कार्य करना मेरे लिये.....

बहुत अधिक मुक़ीकल है। ( )
अधिक मुक़ीकल है। ( )
साधारण मुक़ीकल है। ( )
कम मुक़ीकल है। ( )
बहुत कम मुक़ीकल है। ( )
बिलकुल मुक़ीकल नहीं है। ( )
[२६] बच्चन-जजाई-बुकपा, गरज वे कि तमाम
जिज्बी हो दुखो से……

बहुत अधिक भरी हुई है। ( )
अधिक भरी हुई है। ( )
साधारण भरी हुई है। ( )
कम भरी हुई है। ( )
बहुत कम भरी हुई है। ( )
विलकुल भी नहीं भरी है। ( )

[२०] इंट का जबाब पत्थर से देना,' मैरे क्याल से……

बहुत अधिक ठाक है। ( )
अधिक ठाक है। ( )
साधारण ठाक है। ( )
कम ठाक है। ( )
बहुत कम ठाक है। ( )
विलकुल ठाक नहीं है। ( )

[२१] ‘फिर से बालक हो जाओ;’
मैरे मन में यह भावना……

बहुत अधिक भावी है। ( )
अधिक भावी है। ( )
कम भावी है। ( )
साधारण भावी है। ( )
बहुत कम भावी है। ( )
विलकुल भावी नहीं है। ( )

[२२] परिवार में चलें आपे रोज़-रिज़ोज़ को बिना
बदले ज्यो-का-स्तों बसाते रहता, मुझे……

बहुत अधिक पसंद है। ( )
अधिक पसंद है। ( )
साधारण पसंद है। ( )
कम पसंद है। ( )
बहुत कम पसंद है। ( )
विलकुल पसंद नहीं है। ( )

[२३] ‘हृदेम में चौं बहते हैं? जिम्योगी तो ले देकर
कट रही है।’ इस कथन से मैं……

बहुत अधिक सहसम है। ( )
अधिक सहसम है। ( )
साधारण सहसम है। ( )
कम सहसम है। ( )
बहुत कम सहसम है। ( )
विलकुल सहसम नहीं है। ( )

[२४] अपने को देखकर मैं कह सकता हूँ कि
मुझे जोधः……

बहुत अधिक आता है। ( )
अधिक आता है। ( )
साधारण आता है। ( )
कम आता है। ( )
बहुत कम आता है। ( )
विलकुल नहीं आता है। ( )

[६५] ‘मस्ती और मौत—जो बच्चन में मिलीं, वहं
अब कहूँ’—मैरे क्याल से यह बात……

बहुत अधिक ठाक है। ( )
अधिक ठाक है। ( )
साधारण ठाक है। ( )
कम ठाक है। ( )
बहुत कम ठाक है। ( )
विलकुल ठाक नहीं है। ( )
[26] "अपने आदर्शों और बातों पर बढ़े रहना, जमाने की हुई के साथ बदल जाने से कहीं अच्छा है।" इस कथन से मैं"....

[27] "सुख और घृणा देने की हर कोशिश की। दुनिया के भंडार तो कहीं तब नहीं आयी, बाहर एक ही हो।" इस कथन से मैं"....

[28] अन्य विषयों को अपेक्षा नंगी तलाव के लाखों सैनिकों के द्वारा अपने कमरे में समान मुखी....

[29] बाहर से बेढकर फिसले-कहानियाँ मुखना या मुखना मुखी....

[30] दिन में कुछी बात मुनाने में मुखी....

[31] नेरे जीवन में दुंका....

[32] जमकर बहुत करना मुखी....
[३३] सवाल का जवाब आते हुए भी बड़े के सामने बोलने में मुझे संकोच****

बहुत अधिक होता है। ( )
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बहुत कम होता है। ( )
बिल्कुल नहीं होता है। ( )

बहुत कम होता है। ( )
अधिक होता है। ( )
साधारण होता है। ( )
कम होता है। ( )
बहुत कम होता है। ( )
बिल्कुल नहीं होता है। ( )

बहुत अधिक खराब है। ( )
अधिक खराब है। ( )
साधारण खराब है। ( )
कम खराब है। ( )
बहुत कम खराब है। ( )
बिल्कुल खराब नहीं है। ( )

बहुत अधिक पतन है। ( )
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बिल्कुल पतन नहीं है। ( )

बहुत अधिक सहमत है। ( )
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बहुत अधिक परेशान है। ( )
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बिल्कुल पतन नहीं है। ( )

[३६] जमाने के हमेशों से मैं...

[४०] काव्यिकारी बोरों की पावाय चढ़ा गुलामे...
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</table>
निर्देश

जीवन में न्याय, गौरव, स्वतंत्रता एवं समानता की योग्यता का बड़ा महत्व है। जीवन की प्रभाव नहीं छोड़ सकता केवल अपने मेरे पथ के नीचे बैठने की योग्यता का परिणाम है। संसार की बुद्धि से ऐसी बातें हैं जिन्हें नहीं-नहीं चिंता करने दें तो रोकना आदर्श बनाना जा सकता है। ऐसी योग्यता रखने वाले व्यक्तियों ने ही नहीं-नहीं खुद के लाभ और आचार किये हैं। अपने के पूर्वों पर कुछ ऐसा नया नया देखा है जिसे यदि आप विचाररत्न एवं सुकलनक बूंढे हैं तो इस पढ़ने का प्रयत्न करें। यदि बुद्धि से निजी से रोकना जरूर है तो अपने अन्य निर्देश के कारण का आधार निर्णय करें।

1. ये कार्य अन-अपनी की समस्याओं से सम्बन्धित है; इसका ध्यान लें या नहीं मान उत्तर नहीं है। देरी यह दिखाई देता है कि आप कहाँ तक ऐसी नहीं रहते हैं अपने दोस्तों की ही या है। आपके दर्शन से, अपने सही नहीं सीखते हैं। तात्कालिक विचार एवं निजी उत्तर देने से ही यह वहां तक लाता कि यदि आप में वस्तुओं की नैसर्गिक स्थिति में अवधि को देखते हैं तो नेत्र भावुक देखते हैं। यदि नेत्र भावुक नहीं तो रोकना आदर्श बनाना जा सकता है।

2. इस परिपत्र में आपकी बारे में कार्य करने के लिये दिए गए हैं। अस्तिरिक के लिये प्रयोजन कार्य का अन्तिम-अन्तिम समय निर्धारण है। यदि तुम समय से सीखते हो तो तो भी उसका समय रोकना नहीं। आपके अपने दर्शन के लिये नहीं करें। आपके बारे में आपको बताते हैं, आप भी वास्तव में जिन्हें भी वास्तव में उत्तर दिखाते हैं। अन्त में पूरा किन्तु का समय और दिखाया जाएगा। यदि आपके बारे में किसी भी प्रभाव में किसी का कार्य करने का आधार निर्धारण हैं तो उसे इस समय में लिख सकते हैं।

3. इस प्रयोजन के हर कार्य का उत्तर अवधि दिखाई दें, जब आपके कार्य अन्तिम करने को बता दें। यदि आपको कोई बात पुनः पुनः हो तो इस समय पुनः लिखित हो। यदि इस समय कोई कठिनाई नहीं है और बाद में कोई कठिनाई आये तो ज्ञातीय अपने स्वतंत्र से हाथ उठाए तभी आपकी कठिनाई दूर की जा सकेगी।

Estd. 1971
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© 1973, 87, 98. All rights reserved. 'Reproduction in any form is a violation of Copyright Act. Thinking Creativity by Words (TCW), Hindi Version.
कार्य: 1 यदि ऐसा हो जाये तो निदेश

1. इस का रंग में नीचे तीन असम्भव बातें दी गई हैं जो कि कभी सत्य नहीं हो सकती। आप केवल यह भाग ले कि ऐसा हो गया है। तब आप सोचे कि ऐसा हो जाने पर क्या परिणाम हो सकते हैं?

2. प्रश्नों का उत्तर देते समय अपने ध्यान और सोचने की शक्ति को पूरी तरह मोहोगे करने का प्रयास कीजिए और 5 मिनट में आप जितने उत्तर दे सकते हैं, दीजिए। ऐसे उत्तर देने का प्रयास कीजिए जो आपके विचार में आपके किसी साथी ने न सोचे हो।

3. उत्तर छोटे-छोटे बाक्यों में देने का प्रयास कीजिए ताकि दिखेल हुदे समय में आप अधिक से अधिक लिख सकें।

4. याद रखिये आपको 15 मिनट में इस कार्य की तीनी समस्याओं के विषय में लिखना है। जब पहले प्रश्न के विषय में कोई उत्तर समझ में न आये तो आप दक्षता के अनुसार प्रश्न को हल करना पूरा कर दीजिए। आगे भी में या चाद में पहले प्रश्न के विषय में कोई नया उत्तर ध्यान में आये तो उसे भी लिखने के साथ लिख दीजिए। आपकी सुविधा के लिए हर 5 मिनट समय होने पर आपको बता दिया जायेगा।

5. जब आपसे कार्य आरोप करने को कहा जाये तो तुरंत शुरू कर दीजिए।

नीचे एक उत्तरावधार दिया जा रहा है जिससे स्पष्ट हो जायेगा कि आपको क्या करना हैः—

प्रश्न— यदि पशु-पक्षी भी मनुष्य के समान बोलने लगें तो क्या होगा?

उत्तर— (1) यह सस्त्र एक विभिन्न प्रकार का सस्त्र दिखाई देगा।
(2) पशुओं के राज्य में बहुत से नेता उत्पन्न होंगे।
(3) समस्या है कि एक गधा हमारा नेता हो जाये।
(4) यह भी समस्या है कि यह हमारा प्रधान-मंत्री बन जाये।
(5) मनुष्य अपने पशु-पक्षी की अपनी राजदर (विश्वस्त) बन ले।

और (6) पशु भी अपने भेद अपने मनुष्य-पक्षी से कह सकेंगे; आदि।

समस्याएँ:—

1. यदि मनुष्य पक्षियों की भाषा उठने लगे तो क्या होगा?
2. यदि आपके विद्यालय में पहिये लग जायें तो क्या होगा?

3. यदि मनुष्य को खाने की आवश्यकता न रहे तो क्या होगा?
कार्य : 2 वस्तुओं के नये-नये प्रयोग

निर्देश

1. इस कार्य में तीन वस्तुओं के नाम दिये गये हैं जिनको कई नये और विभिन्न तरीकों से प्रयोग किया जा सकता है। आपको इनमें से प्रत्येक के नये-नये, विभिन्न तथा रोचक प्रयोग अधिक संख्या में लिखने हैं। प्रयोग साधारण हो या असाधारण, आप सबको लिखिये। यदि आप नये-नये और असाधारण प्रयोग जिन्हें आपके साथी आशानी से नहीं सीख सकते, लिखिये तो उससे यह मान्य हो सकेगा कि आप में वस्तुओं को नये बंग से सीखने की क्षमता योग्यता है।

2. प्रत्येक प्रश्न का उत्तर देना अनिवार्य है।

3. तीनों वस्तुओं के बारे में लिखने के लिये आपको 12 मिनट का समय दिया जायेगा। जब आप एक वस्तु के प्रयोग लिख चुके तो उसके दूसरी वस्तु के प्रयोग पढ़ना आरंभ कर दोजिये। बीच में या बाद में यदि कोई अन्य प्रयोग पहली वस्तु के बारे में बाद आ जाये तो उसे भी लिख दोजिये। उसके बाद चोट-चोट बाकी में लिखिये ताकि आप अधिक से अधिक प्रयोग लिख सकें। हर चार मिनट समाप्त होने पर आपको जाना जायेगा।

4. जब आपसे कार्य आरंभ करने के लिये कहा जाये तो तुरंत आरंभ कर दोजिये।

सीख दिये उदाहरण से आपकी समझ में आ जायेगा कि आपको क्या करना है।

उदाहरण— समाचार-पत्र

प्रयोग—(1) समाचार पढ़ने के लिये
(2) घूप से बचने के लिये
(3) बचने के खेलने की चीजें बनाने के लिये
(4) लघुपतन के लिये
(5) रही काफज जमा करने के लिये
(6) गाने श्याम को बढ़ने के लिये ; आदि

समस्याएँ :—

1. पत्थर का टुकड़ा!
2. तकड़ी की एक छड़ी

3. पानी
कार्य: 3  नये सम्बन्ध पता लगाना

निदेश

नीचे कुछ शब्दों के जोड़े दिये गये हैं जो आपस में कई प्रकार से सम्बन्धित हो सकते हैं। आपको यह सोचना है कि वे कितने प्रकार से आपस में सम्बन्ध रहते हैं। देखने में तो जोड़े के दोनों शब्द अलग-अलग मानून होते हैं लेकिन यदि ध्यान से देखा जाये तो नये-नये प्रकार के सम्बन्ध समझ में आ सकते हैं। जितने भी सम्बन्ध आप सोच सके उन्हें दिये हुये स्थान पर छोटे-छोटे बाक्यों में लिख दीजिये। देखना यह है कि आप कितने अधिक और नये सम्बन्ध लीख सकते हैं।

आपको इस कार्य के लिये 15 मिनट का समय दिया जायेगा। आपको बच्चों के सभी जोड़ों के बारे में विचार लिखने हैं। अतः उसे तक समय हो उत्तर दीवाली से दीजिये। हर पाँच मिनट समय होते हर पर आपको बता दिया जायेगा। जब आपसे कार्य आरम्भ करने को कहा जाये तो तुर्ना आरम्भ कर दीजिये।

नीचे दिये उदाहरण में यह बता स्पष्ट हो जायेगी कि आपको क्या करना है:----

उदाहरण: आदमी और जानवर

उत्तर: (1) आदमी और जानवर दोनों में जीवन होता है।
(2) दोनों की मोजन-पानी की आवश्यकता होती है।
(3) दोनों को रोग हो सकते हैं।
(4) दोनों को मधु का दर रहता है।
(5) दोनों की गर्मी-गर्मी का अंधत्व होता है।
(6) दोनों अपने रहने की व्यवस्था करते हैं; आदि।

समस्ताएँ : ----

1. पेड़ और मकान
2. कुर्सी और सोफा (नसैनी)

3. हवा और पानी
कार्य: 4  वस्तुओं को मनोरंजक तथा विचित्र बनाना

निर्देश

आपने घोड़े का खिलौना तो देखा होगा। अन्य जानवरों के भी खिलौने होते हैं जिनसे बच्चे नहीं प्रसन्नता से खेलते हैं। साधारणतया वे खिलौने छोटे आकार के होते हैं ताकि बच्चे उनसे आसानी से खेल सकें। आप घोड़े के एक सादे खिलौने की ध्वनि में रंगें और फिर नीचे आप उन अनोखे तथा मनोरंजक तरीकों को लिखिये किसके द्वारा आप इस खिलौने में ऐसे परिच्छेद ला सकें जिनसे बच्चों को इन खिलौनों से खेलने में अधिक आनन्द अनन्दायन लागे। इस बात को परस्पर मत कौन कहे कि इस कार्य के परिच्छेद पर मना लागत आयेगी। आपको केवल यह सोचना है कि खिलौने को बच्चों के लिये किस तरह अधिक से अधिक मनोरंजक तथा विचित्र बनाया जा सकता है।

जब आपसे कार्य आरम्भ करने की कहा जाये तो तुरंत कार्य आरम्भ कर दीजिए। आपको इस कार्य के लिये 6 मिनट का समय दिया जायेगा।
SCORING SHEET OF TCW

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*See back page for further instructions regarding originality scoring.*
Appendix A

Test of "g": CULTURE FAIR
Scale 2, Form A
Prepared by R. B. Cattell and A. K. S. Cattell

Name .............................................. Sex .....................................
First .................................... Last ..................................
(Write M or F)

Name of School (or Address) ..............................................................

Today's Date .................................. Grade (or Class) ..................

Date of Birth ........................................... Age ................................
Month .................................. Day ................................ Year .......... Years Months

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Total Score

M.A.  
C.A.  
I.Q.  

Do not turn the page until told to do so
TEST 1

Examples

1. •
2....
3. →
4. ○
5. ○

Answers

1. 
2. 
3. 
4. 
5. 

Go or to the next page.
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End of Test 1

STOP! Do not turn the page until told to do so.
TEST 2.

Examples

Answers

1. 

2. 

3. 

4. 

5. 

Go on to the next page.
Answers

End of Test 2

STOP! Do not turn the page until told to do so.
## TEST 3

**Examples**

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Go on to the next page.
End of Test 3

STOP! Do not turn the page until told to do so.
TEST 4

Examples

Answers

End of Test 4
WHAT TO DO: Inside this booklet are some questions to see what attitudes and interests you have. There are no “right” and “wrong” answers because everyone has the right to his own views. To be able to get the best advice from your results, you will want to answer them exactly and truly.

If a separate “Answer Sheet” has not been given to you, turn this booklet over and tear off the Answer Sheet on the back page.

Write your name and all other information asked for on the top line of the Answer Sheet.

First you should answer the four sample questions below so that you can see whether you need to ask anything before starting. Although you are to read the questions in this booklet, you must record your answers on the answer sheet (alongside the same number as in the booklet).

There are three possible answers to each question. Read the following examples and mark your answers at the top of your answer sheet where it says “Examples.” Fill in the left-hand box if your answer choice is the “a” answer, in the middle box if your answer choice is the “b” answer, and in the right-hand box if you choose the “c” answer.

EXAMPLES:

1. I like to watch team games.
   a. yes, b. occasionally, c. no.
2. I prefer people who:
   a. are reserved,
   b. (are) in between,
   c. make friends quickly.
3. Money cannot bring happiness.
   a. yes (true), b. in between, c. no (false).
4. Woman is to child as cat is to:
   a. kitten, b. dog, c. boy.

In the last example there is a right answer—kitten. But there are very few such reasoning items.

Ask now if anything is not clear. The examiner will tell you in a moment to turn the page and start.

When you answer, keep these four points in mind:

1. You are asked not to spend time pondering. Give the first, natural answer as it comes to you. Of course, the questions are too short to give you all the particulars you would sometimes like to have. For instance, the above question asks you about “team games” and you might be fonder of football than basketball. But you are to reply “for the average game,” or to strike an average in situations of the kind stated. Give the best answer you can at a rate not slower than five or six a minute. You should finish in a little more than half an hour.

2. Try not to fall back on the middle, “uncertain” answers except when the answer at either end is really impossible for you—perhaps once every four or five questions.

3. Be sure not to skip anything, but answer every question, somehow. Some may not apply to you very well, but give your best guess. Some may seem personal; but remember that the answer sheets are kept confidential and cannot be scored without a special stencil key. Answers to particular questions are not inspected.

4. Answer as honestly as possible what is true of you. Do not merely mark what seems “the right thing to say” to impress the examiner.

DO NOT TURN PAGE UNTIL TOLD TO DO SO

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1. I have the instructions for this test clearly in mind.
   a. yes,  b. uncertain,  c. no.

2. I am ready to answer each question as truthfully as possible.
   a. yes,  b. uncertain,  c. no.

3. I would rather have a house:
   a. in a sociable suburb,
   b. in between,
   c. alone in the deep woods.

4. I can find enough energy to face my difficulties.
   a. always,  b. generally,  c. seldom.

5. I feel a bit nervous of wild animals even when they are in strong cages.
   a. yes (true),  b. uncertain,  c. no (false).

6. I hold back from criticizing people and their ideas.
   a. yes,  b. sometimes,  c. no.

7. I make smart, sarcastic remarks to people if I think they deserve it.
   a. generally,  b. sometimes,  c. never.

8. I prefer semiclassical music to popular tunes.
   a. true,  b. uncertain,  c. false.

9. If I saw two neighbors' children fighting, I would:
   a. leave them to settle it,
   b. uncertain,  c. reason with them.

10. On social occasions I:
    a. readily come forward,
    b. in between,
    c. prefer to stay quietly in the background.

11. It would be more interesting to be:
    a. a construction engineer,
    b. uncertain,  c. a writer of plays.

12. I would rather stop in the street to watch an artist painting than listen to some people having a quarrel.
    a. true,  b. uncertain,  c. false.

13. I can generally put up with conceited people, even though they brag or show they think too well of themselves.
    a. yes,  b. in between,  c. no.

14. You can almost always notice on a man's face when he is dishonest.
    a. yes,  b. in between,  c. no.

15. It would be good for everyone if vacations (holidays) were longer and everyone had to take them.
    a. agree,  b. uncertain,  c. disagree.

16. I would rather take the gamble of a 10^ with possibly large but uneven earnings, than one with a steady, small salary.
    a. yes,  b. uncertain,  c. no.

17. I talk about my feelings:
    a. only if necessary,
    b. in between,  c. readily, whenever I have a chance.

18. Once in a while I have a sense of vague danger or sudden dread for reasons that I do not understand.
    a. yes,  b. in between,  c. no.

19. When criticized wrongly for something I did not do, I:
    a. have no feeling of guilt,
    b. in between,
    c. still feel a bit guilty.

20. Money can buy almost everything.
    a. yes,  b. uncertain,  c. no.

21. My decisions are governed more by my:
    a. heart,  b. feelings and reason equally,  c. head.

22. Most people would be happier if they lived more with their fellows and did the same things as others.
    a. yes,  b. in between,  c. no.

23. I occasionally get puzzled, when looking in a mirror, as to which is my right and left.
    a. true,  b. uncertain,  c. false.

24. When talking, I like:
    a. to say things, just as they occur to me,
    b. in between,
    c. to get my thoughts well organized first.

25. When something really makes me furious, I find I calm down again quite quickly.
    a. yes,  b. in between,  c. no.

(End, column 1 on answer sheet.)
26. With the same hours and pay, it would be more interesting to be:
   a. a carpenter or cook,
   b. uncertain,
   c. a waiter in a good restaurant.

27. I have been elected to:
   a. only a few offices,
   b. several,
   c. many offices.

28. "Spade" is to "dig" as "knife" is to:
   a. sharp,  
   b. cut,  
   c. point.

29. I sometimes can't get to sleep because an idea keeps running through my mind.
   a. true,  
   b. uncertain,  
   c. false.

30. In my personal life I reach the goals I set, almost all the time.
   a. true,  
   b. uncertain,  
   c. false.

31. An out-dated law should be changed:
   a. only after considerable discussion,
   b. in between,
   c. promptly.

32. I am uncomfortable when I work on a project requiring quick action affecting others.
   a. true,  
   b. in between,
   c. false.

33. Most of the people I know would rate me as an amusing talker.
   a. yes,  
   b. uncertain,  
   c. no.

34. When I see "sloppy," untidy people, I:
   a. just accept it,
   b. in between,
   c. get disgusted and annoyed.

35. I get slightly embarrassed if I suddenly become the focus of attention in a social group.
   a. yes,  
   b. in between,
   c. no.

36. I am always glad to join a large gathering, for example, a party, dance, or public meeting.
   a. yes,  
   b. in between,
   c. no.

37. In school I preferred (or prefer):
   a. music,
   b. uncertain,
   c. handwork and crafts.

38. When I have been put in charge of something, I insist that my instructions are followed or else: I resign.
   a. yes,  
   b. sometimes,  
   c. no.

39. For parents, it is more important to:
   a. help their children develop their affections,
   b. in between,
   c. teach their children how to control emotions.

40. In a group task I would rather:
   a. try to improve arrangements,
   b. in between,
   c. keep the records and see that rules are followed.

41. I feel a need every now and then to engage in a tough physical activity.
   a. yes,  
   b. in between,  
   c. no.

42. I would rather mix with polite people than rough, rebellious individuals.
   a. yes,  
   b. in between,  
   c. no.

43. I feel terribly dejected when people criticize me in a group.
   a. true,  
   b. in between,  
   c. false.

44. If I am called in by my boss, I:
   a. make it a chance to ask for something I want,
   b. in between,
   c. fear I've done something wrong.

45. What this world needs is:
   a. more steady and "solid" citizens,
   b. uncertain,
   c. more "idealists" with plans for a better world.

46. I am always keenly aware of attempts at propaganda in things I read.
   a. yes,  
   b. uncertain,  
   c. no.

47. As a teenager, I joined in school sports:
   a. occasionally,
   b. fairly often,
   c. a great deal.

48. I keep my room well organized, with things in known places almost all the time.
   a. yes,  
   b. in between,  
   c. no.

49. I sometimes get in a state of tension and turmoil as I think of the day's happenings.
   a. yes,  
   b. in between,  
   c. no.

50. I sometimes doubt whether people I am talking to are really interested in what I am saying.
   a. yes,  
   b. in between,  
   c. no.

(End, column 2 on answer sheet.)
51. If I had to choose, I would rather be:
   a. a forester,
   b. uncertain,
   c. a high school teacher.

52. For special holidays and birthdays, I:
   a. like to give personal presents,
   b. uncertain,
   c. feel that buying presents is a bit of a
   nuisance.

53. "Tired" is to "work" as "proud" is to:
   a. smile,  b. success,  c. happy.

54. Which of the following items is different in
   kind from the others?
   a. candle,  b. moon,  c. electric light.

55. I have been let down by my friends:
   a. hardly ever,
   b. occasionally,
   c. quite a lot.

56. I have some characteristics in which I feel
   definitely superior to most people.
   a. yes,  b. uncertain,  c. no.

57. When I get upset, I try hard to hide my feel­
   ings from others.
   a. true,  b. in between,  c. false.

58. I like to go out to a show or entertainment:
   a. more than once a week (more than average),
   b. about once a week (average),
   c. less than once a week (less than average).

59. I think that plenty of freedom is more impor­
   tant than good manners and respect for the
   law.
   a. true,  b. uncertain,  c. false.

60. I tend to keep quiet in the presence of senior
   persons (people of greater experience, age, or
   rank).
   a. yes,  b. in between,  c. no.

61. I find it hard to address or recite to a large
   group.
   a. yes,  b. in between,  c. no.

62. I have a good sense of direction (find it easy to
   tell which is North, South, East, or West)
   when in a strange place.
   a. yes,  b. in between,  c. no.

63. If someone got mad at me, I would:
   a. try to calm him down,
   b. uncertain,
   c. get irritated.

64. "When I read an unfair magazine article, I am
   more inclined to forget it than to feel like
   "hitting back."
   a. true,  b. uncertain,  c. false.

65. My memory tends to drop a lot of unimportant,
   trivial things, for example, names of streets or
   stores in town.
   a. yes,  b. in between,  c. no.

66. I could enjoy the life of an animal doctor...
   handling disease and surgery of animals.
   a. yes,  b. in between,  c. no.

67. I eat my food with gusto, not always so care­
   fully and properly as some people.
   a. true,  b. uncertain,  c. false.

68. There are times when I don't feel in the right
   mood to see anyone.
   a. very rarely,
   b. in between,
   c. quite often.

69. People sometimes warn me that I show my ex­
   citation in voice and manner too obviously.
   a. yes,  b. in between,  c. no.

70. As a teenager, if I differed in opinion from my
   parents, I usually:
   a. kept my own opinion,
   b. in between,
   c. accepted their authority.

71. I would prefer to have an office of my own,
   not sharing it with another person.
   a. yes,  b. uncertain,  c. no.

72. I would rather enjoy life quietly in my own
   way than be admired for my achievements.
   a. true,  b. uncertain,  c. false.

73. I feel mature in most things.
   a. true,  b. uncertain,  c. false.

74. I find myself upset rather than helped by the
   kind of criticism that many people offer one.
   a. often,  b. occasionally,  c. never.

75. I am always able to keep the expression of my
   feelings under exact control.
   a. yes,  b. in between,  c. no.

(End, column 3 on answer sheet.)
76. In starting a useful invention, I would prefer:
   a. working on it in the laboratory,
   b. uncertain,
   c. selling it to people.

77. “Surprise” is to “strange” as “fear” is to:
   a. brave,  b. anxious,  c. terrible.

78. Which of the following fractions is not in the same class as the others?
   a. 3/7,  b. 3/9,  c. 3/11.

79. Some people seem to ignore or avoid me, although I don’t know why.
   a. true,  b. uncertain,  c. false.

80. People treat me less reasonably than my good intentions deserve.
   a. often,  b. occasionally,  c. never.

81. The use of foul language, even when it is not in a mixed group of men and women, still disgusts me.
   a. yes,  b. in between,  c. no.

82. I have decidedly fewer friends than most people.
   a. yes,  b. in between,  c. no.

83. I would hate to be where there wouldn’t be a lot of people to talk to.
   a. true,  b. uncertain,  c. false.

84. People sometimes call me careless, even though they think I’m a likable person.
   a. yes,  b. in between,  c. no.

85. “Stage-fright” in various social situations is something I have experienced:
   a. quite often,
   b. occasionally,
   c. hardly ever.

86. When I am in a small group, I am content to sit back and let others do most of the talking.
   a. yes,  b. in between,  c. no.

87. I prefer reading:
   a. a realistic account of military or political battles,
   b. uncertain,
   c. a sensitive, imaginative novel.

88. When bossy people try to “push me around,” I do just the opposite of what they wish.
   a. yes,  b. in between,  c. no.

89. Business superiors or members of my family, as a rule, find fault with me only when there is real cause.
   a. true,  b. in between,  c. false.

90. In streets or stores, I dislike the way some persons stare at people.
   a. yes,  b. in between,  c. no.

91. On a long journey, I would prefer to:
   a. read something profound, but interesting,
   b. uncertain,
   c. pass the time talking casually with a fellow passenger.

92. In a situation which may become dangerous, I believe in making a fuss and speaking up even if calmness and politeness are lost.
   a. yes,  b. in between,  c. no.

93. If acquaintances treat me badly and show they dislike me:
   a. it doesn’t upset me a bit,
   b. in between,
   c. I tend to get downhearted.

94. I find it embarrassing to have praise or compliments bestowed on me.
   a. yes,  b. in between,  c. no.

95. I would rather have a job with:
   a. a fixed, certain salary,
   b. in between,
   c. a larger salary, which depended on my constantly persuading people I am worth it.

96. To keep informed, I like:
   a. to discuss issues with people,
   b. in between,
   c. to rely on the actual news reports.

97. I like to take an active part in social affairs, committee work, etc.
   a. yes,  b. in between,  c. no.

98. In carrying out a task, I am not satisfied unless even the minor details are given close attention.
   a. true,  b. in between,  c. false.

99. Quite small setbacks occasionally irritate me too much.
   a. yes,  b. in between,  c. no.

100. I am always a sound sleeper, never walking or talking in my sleep.
    a. yes,  b. in between,  c. no.
101. It would be more interesting to work in a business:
   a. talking to customers,
   b. in between,
   c. keeping office accounts and records.

102. "Size" is to "length" as "dishonest" is to:
   a. prison,  b. sin,   c. stealing.

103. AB is to dc as SR is to:
   a. qp,   b. pq,   c. tu.

104. When people are unreasonable, I just:
   a. keep quiet,
   b. uncertain,
   c. despise them.

105. If people talk loudly while I am listening to music, I:
   a. can keep my mind on the music and not be bothered,
   b. in between,
   c. find it spoils my enjoyment and annoys me.

106. I think I am better described as:
   a. polite and quiet,
   b. in between,
   c. forceful.

107. I attend social functions only when I have to, and stay away any other time.
   a. yes,   b. uncertain,   c. no.

108. To be cautious and expect little is better than to be happy at heart, always expecting success.
   a. true,   b. uncertain,   c. false.

109. In thinking of difficulties in my work, I:
   a. try to plan ahead, before I meet them,
   b. in between,
   c. assume I can handle them when they come.

110. I find it easy to mingle among people at a social gathering.
    a. true,   b. uncertain,   c. false.

111. When a bit of diplomacy and persuasion are needed to get people moving, I am generally the one asked to do it.
    a. yes,   b. in between,   c. no.

112. It would be more interesting to be:
    a. a guidance worker helping young people find jobs,
    b. uncertain,
    c. a manager in efficiency engineering.

113. If I am quite sure that a person is unjust or behaving selfishly, I show him up, even if it takes some trouble.
    a. yes,   b. in between,   c. no.

114. I sometimes make foolish remarks in fun, just to surprise people and see what they will say.
    a. yes,   b. in between,   c. no.

115. I would enjoy being a newspaper writer on drama, concerts, opera, etc.
    a. yes,   b. uncertain,   c. no.

116. I never feel the urge to doodle and fidget when kept sitting still at a meeting.
    a. true,   b. uncertain,   c. false.

117. If someone tells me something which I know is wrong, I am more likely to say to myself:
    a. "He is a liar."
    b. in between,
    c. "Apparently he is misinformed."

118. I feel some punishment is coming to me even when I have done nothing wrong.
    a. often,   b. occasionally,   c. never.

119. The idea that sickness comes as much from mental as physical causes is much exaggerated.
    a. yes,   b. in between,   c. no.

120. The pomp and splendor of any big state ceremony are things which should be preserved.
    a. yes,   b. in between,   c. no.

121. It bothers me if people think I am being too unconventional or odd.
    a. a lot,   b. somewhat,   c. not at all.

122. In constructing something I would rather work:
    a. with a committee,
    b. uncertain,
    c. on my own.

123. I have periods when it's hard to stop a mood of self-pity.
    a. often,   b. occasionally,   c. never.

124. Often I get angry with people too quickly.
    a. yes,   b. in between,   c. no.

125. I can always change old habits without difficulty and without slipping back.
    a. yes,   b. in between,   c. no.

(End, column 5 on answer sheet.)
126. If the earnings were the same, I would rather be:
   a. a lawyer,
   b. uncertain,
   c. a navigator or pilot.

127. “Better” is to “worst” as “slower” is to:
   a. fast,
   b. best,
   c. quickest.

128. Which of the following should come next at the end of this row of letters: xooooxxooxxx?
   a. oxxx,
   b. ooxx,
   c. xooo.

129. When the time comes for something I have planned and looked forward to, I occasionally do not feel up to going.
   a. true,
   b. in between,
   c. false.

130. I can work carefully on most things without being bothered by people making a lot of noise around me.
   a. yes,
   b. in between,
   c. no.

131. I occasionally tell strangers things that seem to me important, regardless of whether they ask about them.
   a. yes,
   b. in between,
   c. no.

132. I spend much of my spare time talking with friends about social events enjoyed in the past.
   a. yes,
   b. in between,
   c. no.

133. I enjoy doing “daring,” foolhardy things “just for fun.”
   a. yes,
   b. in between,
   c. no.

134. I find the sight of an untidy room very annoying.
   a. yes,
   b. in between,
   c. no.

135. I consider myself a very sociable, outgoing person.
   a. yes,
   b. in between,
   c. no.

136. In social contacts I:
   a. show my emotions as I wish,
   b. in between,
   c. keep my emotions to myself.

137. I enjoy music that is:
   a. light, dry, and brisk,
   b. in between,
   c. emotional and sentimental.

138. I admire the beauty of a poem more than that of a well-made gun.
   a. yes,
   b. uncertain,
   c. no.

139. If a good remark of mine is passed by, I:
   a. let it go,
   b. in between,
   c. give people a chance to hear it again.

140. I would like to work as a probation officer with criminals on parole.
   a. yes,
   b. in between,
   c. no.

141. One should be careful about mixing with all kinds of strangers, since there are dangers of infection and so on.
   a. yes,
   b. uncertain,
   c. no.

142. In traveling abroad, I would rather go on an expertly conducted tour than plan by myself the places I wish to visit.
   a. yes,
   b. uncertain,
   c. no.

143. I am properly regarded as only a plodding, half-successful person.
   a. yes,
   b. uncertain,
   c. no.

144. If people take advantage of my friendliness, I do not resent it and I soon forget.
   a. true,
   b. uncertain,
   c. false.

145. If a heated argument developed between other members taking part in a group discussion, I would:
   a. like to see a “winner,”
   b. in between,
   c. wish that it would be smoothed over.

146. I like to do my planning alone, without interruptions and suggestions from others.
   a. yes,
   b. in between,
   c. no.

147. I sometimes let my actions get swayed by feelings of jealousy.
   a. yes,
   b. in between,
   c. no.

148. I believe firmly “the boss may not always be right, but he always has the right to be boss.”
   a. yes,
   b. uncertain,
   c. no.

149. I get tense as I think of all the things lying ahead of me.
   a. yes,
   b. sometimes,
   c. no.

150. If people shout suggestions when I’m playing a game, it doesn’t upset me.
   a. true,
   b. uncertain,
   c. false.
151. It would be more interesting to be:
   a. an artist,
   b. uncertain,
   c. a secretary running a club.

152. Which of the following words does not properly belong with the others?
   a. any,  b. some,  c. most.

153. "Flame" is to "heat" as "rose" is to:
   a. thorn,  b. red petals,  c. scent.

154. I have vivid dreams, disturbing my sleep.
   a. often,  b. occasionally,  c. practically never.

155. If the odds are really against something's being a success, I still believe in "taking the risk.
   a. yes,  b. in between,  c. no.

156. I like it when I know so well what the group has to do that I naturally become the one in command.
   a. yes,  b. in between,  c. no.

157. I would rather dress with quiet correctness than with eye-catching personal style.
   a. true,  b. uncertain,  c. false.

158. An evening with a quiet hobby appeals to me more than a lively party.
   a. true,  b. uncertain,  c. false.

159. I close my mind to well-meant suggestions of others, even though I know I shouldn't.
   a. occasionally,  b. hardly ever,  c. never.

160. I always make it a point in deciding anything, to refer to basic rules of right and wrong.
   a. yes,  b. in between,  c. no.

161. I somewhat dislike having a group watch me at work.
   a. yes,  b. in between,  c. no.

162. Because it is not always possible to get things done by gradual, reasonable methods, it is sometimes necessary to use force.
   a. true,  b. in between,  c. false.

163. In school I preferred (or prefer):
   a. English,
   b. uncertain,
   c. mathematics or arithmetic.

164. I have sometimes been troubled by people's saying bad things about me behind my back, with no grounds at all.
   a. yes,  b. uncertain,  c. no.

165. Talk with ordinary, habit-bound, conventional people:
   a. is often quite interesting and has a lot to it,
   b. in between,
   c. annoys me because it deals with trifles and lacks depth.

166. Some things make me so angry that I find it best not to speak.
   a. yes,  b. in between,  c. no.

167. In education, it is more important to:
   a. give the child enough affection,
   b. in between,
   c. have the child learn desirable habits and attitudes.

168. People regard me as a solid, undisturbed person, unmoved by ups and downs in circumstances.
   a. yes,  b. in between,  c. no.

169. I think society should let reason lead it to new customs and throw aside old habits or mere traditions.
   a. yes,  b. in between,  c. no.

170. I think it is more important in the modern world to solve:
   a. the question of moral purpose,
   b. uncertain,
   c. the political difficulties.

171. I learn better by:
   a. reading a well-written book,
   b. in between,
   c. joining a group discussion.

172. I like to go my own way; instead of acting on approved rules.
   a. true,  b. uncertain,  c. false.

173. I like to wait till I am sure that what I am saying is correct, before I put forth an argument.
   a. always,  b. generally,
   c. only if it's practicable.

174. Small things sometimes "get on my nerves" unbearably, though I realize they are trivial.
   a. yes,  b. in between,  c. no.

175. I don't often say things on the spur of the moment that I greatly regret.
   a. true,  b. uncertain,  c. false.

(End, column 7 on answer sheet.)
176. If asked to work with a charity drive, I would
   a. accept,
   b. uncertain,
   c. politely say I'm too busy.

177. Which of the following words do not belong with the others?
   a. wide,  b. zigzag,  c. straight.

178. "Soon" is to "never" as "near" is to.
   a. nowhere,  b. far,  c. away.

179. If I make an awkward social mistake, I can
   a. yes,  b. in between,  c. no.

180. I am known as an "idea man" who almost
    always puts forward some ideas on a problem.
    a. yes,  b. in between,  c. no.

81. I think I am better at showing.
    a. nerve in meeting challenges,
    b. uncertain,
    c. tolerance of other people's wishes.

182. I am considered a very enthusiastic person.
    a. yes,  b. in between,  c. no.

183. I like a job that offers change, variety, and travel, even if it involves some danger.
    a. yes,  b. in between,  c. no.

184. I am a fairly strict person, insisting on always doing things as correctly as possible.
    a. true,  b. in between,  c. false.

185. I enjoy work that requires conscientious, exacting skills.
    a. yes,  b. in between,  c. no.

186. I'm the energetic type who keeps busy.
    a. yes,  b. uncertain,  c. no.

187. I am sure there are no questions that I have
    skipped or failed to answer properly.
    a. yes,  b. uncertain,  c. no.

(End of test.)