CHAPTER-III

THE TOOLS

The aims of this empirical study as enunciated in the first chapter required the collection of the relevant data on the following variables:

- Professed disciplinary orientation of secondary school teachers
- Practised disciplinary orientation of secondary school teachers
- Length of teaching experience of secondary school teachers
- Emotional maturity of secondary school teachers
- Professional commitment of secondary school teachers

For the collection of data on the variables of professed disciplinary orientation, practised disciplinary orientation and professional commitment of teachers, the needed tools were not available in our country. However, for collecting data on the variable of emotional maturity, standardized tools were available. The variable of teaching experience did not require the use of any tool.

In the first phase of work of this study, the investigator undertook the task of constructing the required tools.

3.1 CONSTRUCTION OF PROFESSED DISCIPLINARY ORIENTATION SCALE

For the construction of the said scale, the investigator executed the steps given below:

3.1.1 Preparation of Item Pool

For the construction of this scale, the investigator went in for an intensive study of the history of disciplinary orientations and practices from
the ancient times to the modern period which gradually underwent marked changes across the globe. Many philosophers and educators were studied so as to get a clear idea of the discriminating features of divergent kinds of discipline. In the light of this study, 118 statements, indicating directions, either in favour of or in disfavour of democratic orientation, were framed. The number of favourable and unfavourable statements was kept approximately the same.

These statements were sent to senior college teachers, principals of schools and colleges, experienced school administrators for relevant comments on them. These statements were also discussed threadbare with senior colleagues working in colleges of education to seek their suggestions and judgements with regard to the statements for their adequacy in terms of the clarity of language and content for inclusion in the scale.

In the light of their judgements, comments and suggestions, some statements had to be deleted and some were reworded and reframed in order to make them unambiguous and more precisely relevant. A pool of 102 statements was tentatively prepared for first try-out on a small group of secondary school teachers.

3.1.2 Small Group Try-Out

The preliminary draft of professed disciplinary orientation scale was tried out on 30 government secondary school teachers. These teachers were contacted personally by the investigator and purposes of the scale were explained to them. After small group try-out, 82 statements were retained. The dropped statements were those that failed to elicit appropriate responses.
3.1.3 Application of Thurstone’s Technique

The most commonly used methods of scale construction are by Thurstone’s (1929) and Likert (1932). The coefficient of correlation between the two types of scales was reported to be as high as 0.92 in a study by Edwards and Kenny (1941). Thus Thurstone’s method was followed in the construction of this scale in hand.

Eighty two statements initially retained were put in the form of a booklet. The statements were structured on a five-point continuum. Thurston’s technique requires a nine-point scale but for the purpose of this study, four extreme points were dropped as the differentiations beyond the categories of strongly agree and strongly disagree would have been difficult to make. The five categories of responses varied from strongly agree, agree, undecided, disagree and strongly disagree and the abbreviations used for each of them in the scale were SA, A, U, D, SD respectively. The details of these abbreviations were explained through the instructions given on the title page of the scale booklet. The respondents were instructed to tick mark one out of the five alternative responses which they considered most appropriate.

The preliminary draft of the scale was administered on 120 secondary school teachers, both male and female. These teachers were contacted personally and instructions were given regarding recording of their responses in the given boxes.

Some of the teachers did not respond on all the items. Some gave only one kind of response on all the statements, their response sheets were ignored. The investigator used the data from 100 school teachers for the purpose of item analysis.
**Scale Value**

The responses given by the teachers were then classified separately for each statement into five categories of responses used in the tentative draft of Professed Disciplinary Orientation Scale. These five points were quantified by giving a score ranging from ‘1 for strongly disagree’ to ‘5 for strongly agree’ for favourable statements and ‘2 for disagree’, ‘3 for undecided’ and ‘4 for agree’ for such statements. For unfavourable statements, the scoring procedure was reversed, i.e. ‘1 for strongly agree’, ‘2 for agree’, ‘3 for undecided’, ‘4 for disagree’ and ‘5 for strongly disagree’.

As a result of the said scoring procedure, the number of judges for each statement was found and the scale value of each particular statement was calculated by finding the median (S-value) representing the degree of agreement or disagreement among the respondents.

**Q-Value**

Q-value was found out for each statement of the preliminary draft as required by Thurstone’s technique for measuring the variation in judgement of the judges for a given statement. For calculating $Q = (Q_3 - Q_1)$, frequency of responses in each category for each statement was noted. Any statement which is placed at different points on the scale shows variations in its interpretation by the respondents. Such statements were not of worth to be included in the scale. **Thurstone and Chave (1929)** used the semi-inter quartile range or ‘$Q$’ as a measure of this variation. The lower the Q-value, the more is the agreement among the respondents on that statement. In consonance with these parameters the framed statements which had Q-value lower than 0.5 and higher than 2.0 were rejected, *(Lokesh Koul 2001)*. The Q-values and scale values of the finally selected statements are shown in table 3.1.
### Table 3.1

Scale value and Q-value of different statements included in Professed Disciplinary Orientation Scale

<table>
<thead>
<tr>
<th>Statement No.</th>
<th>Scale Value</th>
<th>Q-Value</th>
<th>Statement No.</th>
<th>Scale Value</th>
<th>Q-Value</th>
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<td>30.</td>
<td>2.25</td>
<td>1.89</td>
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</tbody>
</table>

69
The final form of the scale came to consist of 44 statements, 22 in favour of democratic disciplinary orientation and 22 in disfavour of this orientation. These statements were unambiguous and covered different degrees of democratic orientation. The finally selected statements were then arranged in a random order on the scale. The scale was named as ‘Professed Disciplinary Orientation Scale’. The statements of the final scale are as under:

1. The greater is liberty in schools, the greater is indiscipline.
2. There is no need to seek the help of parents for maintenance of school discipline.
3. In schools, reasonable freedom works better in inculcating disciplinary values in students.
4. Imposed discipline eventually leads to self-discipline.
5. Giving opportunity to pupils to correct themselves is useful from the stand point of discipline.
6. It is more important to make pupils realize their mistakes rather than punishing them.
7. Harsh discipline harms the all round development of pupils.
8. Each individual teacher should have his own way of enforcing rules of discipline.
9. Students who admit their mistakes need not be punished.
10. Parents should be strict with the children to make them disciplined.
11. There should be no hesitation in chiding the students for their misbehaviour.
12. The opinions and views of students should be invited regarding the causes of indiscipline.
13. Students in our schools are such that they listen only to threats.
14. The teacher should focus on rewarding good behaviour and not on punishing the erring pupils.
15. Punishment must be given for intentional wrong doing.
16. Lenient discipline is no discipline.
17. Teachers need not be concerned with effects of disciplinary measures on pupils.
18. Good conduct on the part of students should be appreciated publicly.
19. Giving punishment for indiscipline is one of the professional duties of teachers.
20. Formation of students’ discipline committees makes disciplinary matters worse.
21. Strict measures of discipline have adverse effect on the mental health of students.
22. Parents should be involved in solving disciplinary problems of their wards.
23. When there is fear of punishment, violations of rules are rare.
24. Basic rules of discipline should be made known to pupils.
25. Delinquent pupils should be shunted out of school.
26. Students can be helped to inculcate self-discipline only through democratic ways.
27. Lenient teachers fail to build reputation of their schools.
28. Misconduct on part of students does not reflect immaturity of the teacher.
29. The use of external measures of maintaining discipline is of no use without discovering causes of misbehaviour.
30. Some students are so incorrigible that it is not possible to set them right without punishment.
31. Exemplary punishment should be given for indecent behaviour.
32. It is possible to inculcate good discipline by keeping students constructively busy.
33. Holding discussions amongst teachers about problems of discipline helps to maintain healthy discipline.
34. A flexible approach is better in disciplinary matters.
35. The harsher the disciplinary procedures, the poorer is the quality of discipline.
36. For maintenance of discipline teachers need not trust students.
37. Appreciation of good behaviour is an effective method of maintaining students on the right path.
38. Discipline cannot be maintained by sticking to rational steps only.
39. If erring students are not punished, they tend to become more and more naughty and deviant.
40. Discipline based on fear is no discipline.
41. Teachers should not use disciplinary methods which humiliate pupils.
42. Treating the students with affection is to spoil them.
43. Physical punishment as a corrective measure leads to more indiscipline.
44. Maintenance of discipline is an important end in itself.

Statements at serial numbers – 3, 5, 6, 7, 9, 12, 14, 15, 18, 21, 22, 24, 26, 29, 32, 33, 34, 35, 37, 40, 41 and 43 are in favour of the democratic disciplinary orientation and the rest of the statements are in disfavour of democratic disciplinary orientation. Higher score on the scale reflects relatively higher level of democratic disciplinary orientation professed by teachers and vice-versa.
3.1.4 Determination of reliability of the scale

Before using the tool for collecting data needed for the purpose of the study, it was imperative to determine its reliability. For this purpose, the professed disciplinary orientation scale was administered to a population of 60 subjects (teachers of government secondary schools). The subjects were taken on the basis of random sampling, from rural and urban areas of the State of Punjab.

The split-half method was used to establish reliability of the tool. The forty four statements on the professed disciplinary orientation scale were divided into two halves consisting of 22 odd and 22 even items. The mean difference obtained by school teachers on the two halves of the professed disciplinary orientation scale was found to be not significant even at .05 level (t-ratio being 1.18).

The coefficient of correlation for the whole test (rtt) after applying Spearman Brown Prophecy formula came out to be 0.78. This was indicative of satisfactory level of internal consistency of the prepared scale.

3.1.5 Validity

Since there was no other such tool available to establish concurrent validity of the constructed scale, the investigator made efforts to ensure and establish validity of the scale in the following manner:

1. The investigator framed the items after critically studying the relevant literature.
2. The items were subjected to a detailed, systematic and critical inspection by experts.
3. The preparation and scoring procedure was based on the best and up to date theory.
4. Only highly discriminating items which showed significant internal consistency were included in the scale, following item analysis (Koul 2001) and Kelly (1939).

5. The items that were retained as a result of item analysis were again shown to a number of experts for obtaining their verdict on validity.

6. Lastly, the investigator went ahead to use the tool only after she succeeded in convincing the supervisor about the high face and content validity of the tool.

3.2 CONSTRUCTION OF PRACTISED DISCIPLINARY ORIENTATION SCALE

This study also required the construction of a tool for collecting data on the disciplinary orientation practised by secondary school teachers as one of the principal aims of the study was to find out the extent of congruence and the extent of discrepancy between the professed and practised disciplinary orientations of the same subjects. For this end the same items were retained as were incorporated in the construction of the scale for the measurement of professed disciplinary orientation. This was done after formulating them in relevant action forms i.e. the forms the responses to which would reveal how far a given course of action was actually practised and executed by the subjects. While putting the same items in action forms, the help of teachers working in colleges of education and of teachers working in secondary schools was sought. In this way the investigator found herself in a position to convert all 44 items of the scale measuring the professed disciplinary orientation into such action forms the responses to which would reflect actual practice of the disciplinary orientation on the part of subjects. The items so formulated and as stated below, are arranged here
in the same order as in case of the scale for measuring professed disciplinary orientation of teachers.

1. To avoid indiscipline in the school I do not give freedom to students.
2. I do not seek the help of parents for maintenance of school discipline.
3. I give freedom to my students to inculcate disciplinary values.
4. I make the students follow rules of discipline strictly as this practice eventually leads to self-discipline.
5. I give opportunity to students to correct misbehaviour on their part.
6. I make the students realize their mistakes.
7. I avoid using harsh disciplinary measures harmful to all round development of my students.
8. I follow my own ways to enforce discipline.
9. I do not punish those students who admit their mistakes.
10. I advise parents to be strict with their children to make them disciplined.
11. If students misbehave I show no hesitation in chiding them.
12. I invite opinions and views of students regarding causes of indiscipline in school.
13. I use threats to discipline students as they listen to threats only.
14. Instead of punishing the erring students, I reward the pupils who show good behaviour.
15. I punish those students who commit wrongs intentionally.
16. I am not lenient with my students as lenient discipline is no discipline.
17. I am least concerned with the effects of my disciplinary measures on my students.
18. I publicly appreciate the good conduct showed by my students.
19. I take it as my professional duty to punish indisciplined students.
20. I discourage the formation of students’ discipline committees as it makes the matters worse.
21. I do not use strict disciplinary measures to avoid adverse effect on the mental health of my students.
22. I involve parents of my students in solving disciplinary problems.
23. The fear of punishment I create in my students helps to prevent violations of rules.
24. I make the basic rules of discipline clear to my students.
25. I see to it that delinquent students are shunted out of the school.
26. I try to develop self-discipline by using democratic ways with my students.
27. I show no leniency in using disciplinary measures as it harms the reputation of the school.
28. I am not responsible for the misbehaviour of my students.
29. I first try to find the cause of misbehaviour by students.
30. I do punish those students who are so incorrigible that without punishment they cannot be set right.
31. I give exemplary punishment to my students for indecent behaviour of students.
32. I keep my students constructively busy to maintain good discipline.
33. I participate actively in discussions on disciplinary matters.
34. I adopt flexible approach in disciplinary matters.
35. I avoid using harsher measures of discipline.
36. I do not trust the students in disciplinary matters.
37. I appreciate good behaviour of students to keep them on the right path.
38. I stick to the use of rational steps only for maintaining discipline.
39. I punish the erring students so that they do not become more naughty and deviant.
40. I do not create fear in students to make them disciplined.
41. I avoid humiliating students through my disciplinary steps.
42. I refrain myself from treating students with affection so as not to spoil them.
43. I do not give physical punishment as it does not yield desired results.
44. In maintaining discipline I go by the principle that maintenance of discipline is an end in itself.

The above items of the tool were however arranged differently in the booklets given to the subjects for collecting data on this variable.

The copies of both the tools – Professed Disciplinary Orientation Scale and Practised Disciplinary Orientation Scale are appended.

**Scoring Procedure**

The procedure for scoring the responses on each item of the practised disciplinary orientation scale was set out on the Likertian lines. The five categories of responses were: Always, most of the time, generally, seldom and never.

The score weightage was 5, 4, 3, 2, 1 for ‘always’, ‘most of the time’, ‘generally’, ‘seldom’ and ‘never’ respectively for statements in favour of democratic orientation. The score weightage was reversed for statements in disfavour of democratic orientation i.e. 1, 2, 3, 4, 5 for ‘always’, ‘most of the time’, ‘generally’, ‘seldom’ and ‘never’ respectively. High score on this scale reflects relatively higher level of democratic disciplinary orientation practised by teachers and vice-versa.
3.2.1 Determination of Reliability

In order to establish the reliability of the Practised Disciplinary Orientation Scale, a sample of 60 secondary school teachers teaching in rural and urban government schools was drawn randomly.

Split-half Reliability

The forty four items on the Practised Disciplinary Orientation Scale were divided into two halves consisting of 22 odd and 22 even items. The mean difference obtained by school teachers on the two halves of the this scale was found to be not significant even at .05 level (t-ratio being 1.06).

The co-efficient of correlation for the whole test (r,t) after applying Spearman Brown Prophecy formula came out to be 0.73 which was indicative of satisfactory level of internal consistency of the Practised Disciplinary Orientation Scale.

3.2.2 Validity

Practised disciplinary orientation scale was validated against criterion ‘content validity’. The content validity is concerned with the adequacy of sampling of a specified universe of content. To determine the content validity, the scale statements were given to a panel of experts in the field. The experts agreed with the investigator on the validity of scale statements. This concurrence was taken as evidence of content validity (Koul 2001).

3.3 CONSTRUCTION OF PROFESSIONAL COMMITMENT SCALE FOR TEACHERS

The aims of this study also necessitated the use of a tool for measuring the variable of professional commitment. As no such tool was available in the Indian markets of educational and psychological tools, the
investigator had to undertake herself the construction of the needed tool. After consultation with her guide and her colleagues and other educational experts, the investigator took the decision to frame the items of the tool on all crucial areas of professional commitment of teachers identified and endorsed in 1998 by the National Council of Teacher Education (NCTE). The areas in question are commitment to the learner, commitment to the society, commitment to the profession, commitment to attain professional excellence and commitment to basic values. The implications of all the said areas of professional commitment have been already delineated in chapter first of this work.

3.3.1 Preparation of Item Pool

On the basis of available literature on professional commitment among workers of different professions and the identified areas of professional commitment of teachers by NCTE (1998), APEID document (1992), above mentioned areas of teachers’ commitment were taken into account while framing items for the scale. Help was sought from experienced colleagues, head teachers. 98 items were tentatively framed pertaining to the five commitment areas.

The draft of the said items was sent to senior school teachers, principals, some renowned teachers and colleagues to give their judgements and suggestions regarding content and language of the items. Keeping in view their judgements and comments, certain items were discarded, some were reframed or reworded. A pool of 77 statements was finalized for preliminary draft of the professional commitment scale. These 77 statements were put in the form of a scale booklet under the five commitment areas which were named A, B, C, D, and E in the booklet.
Commitment to Learner - A
Commitment to Society - B
Commitment to Profession - C
Commitment to attain excellence - D
Commitment to Basic Values - E

Thurstone’s (1929) technique of scale construction was used for professional commitment scale.

The statements were presented on a five point scale. These five categories of responses varied from ‘always’, ‘most of the time’, ‘generally’, ‘seldom’ and ‘never’. The scale was administered on 100 secondary school teachers and data was collected on 77 items of the scale. The teachers were instructed to tick mark in the box most appropriate according to their response. They were given enough time so that more than 90% teachers could complete the test. The scoring was done on the 5 point scale, for positive items, ‘5 for always’, ‘4 for most of the time’, ‘3 for generally’, ‘2 for seldom’ and ‘1 for never’ responses and for negatively stated items the process of scoring was reversed i.e. ‘5 for never’, ‘4 for seldom’, ‘3 for generally’, ‘2 for most of the time’ and ‘1 for always’.

Scale Value

After noting down the frequency of responses in each category for each statement, the scale values were worked out. The scale value for a particular statement was calculated by finding the median (S-value) and this represented the degree of agreement or disagreement among the respondents.

Q-Value

Q-values as required by Thurstone’s technique were calculated by noting down the frequency of responses in each category for each statement.
Any statement which is placed at different points on the scale shows variations in its interpretation by the respondents. Such statements were not of consequence to be included in the scale. Thurstone and Chave (1929) used the semi-inter quartile range or ‘Q’ as a measure of this variation. The lower the Q-value, the more is the agreement among the respondents on that statement. The Q-values for 77 statements were calculated. The statements which had Q-value lower than 0.5 and higher than 2.0 were rejected at this stage (Lokesh Koul, 2001). This resulted in rejection of 17 statements from different areas of professional commitment. While doing so care was taken to see that from the retained items, 12 items remained available in each commitment area. The tool was to be so constructed that each area of commitment stood at par with the other areas.

The ‘Q’ values and the scale values of the finally selected statements are given in table 3.2

<table>
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<tr>
<th>Statement No.</th>
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<th>Q-value</th>
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<td>42</td>
<td>3.89</td>
<td>1.92</td>
</tr>
<tr>
<td>13</td>
<td>4.03</td>
<td>0.90</td>
<td>43</td>
<td>3.91</td>
<td>0.75</td>
</tr>
</tbody>
</table>
### Final Form

The final form of the scale came to consist of 60 items. Out of these items, 12 items were selected on the basis of their relevance for each of the five commitment areas.

### Table 3.3

Area wise distribution of items in the final draft of Professional Commitment Scale for Teachers

<table>
<thead>
<tr>
<th>Area Code</th>
<th>Commitment Areas</th>
<th>Item Numbers in Each Area</th>
<th>Number of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Commitment to learner</td>
<td>1–12</td>
<td>12</td>
</tr>
<tr>
<td>B</td>
<td>Commitment to Society</td>
<td>13–24</td>
<td>12</td>
</tr>
<tr>
<td>C</td>
<td>Commitment to Profession</td>
<td>25–36</td>
<td>12</td>
</tr>
<tr>
<td>D</td>
<td>Commitment to Achieve Excellence</td>
<td>37–48</td>
<td>12</td>
</tr>
<tr>
<td>E</td>
<td>Commitment to Basic Values</td>
<td>49–60</td>
<td>12</td>
</tr>
</tbody>
</table>
The final draft of the scale has a score ranging from 60 to 300, high score reflecting relatively higher level of professional commitment of teachers and vice-versa.

3.3.2 Reliability

The scale being heterogeneous and statements having been arranged logically, the two halves could not have been identical. Therefore, test-retest reliability criterion was found to be most suitable for determining the reliability of this scale. The reliability study of the scale was tested over a sample of 60 secondary school teachers. The product-moment coefficient of correlation for the two sets of scores was computed. It was found to be 0.83 which was high enough to testify the soundness of the scale (Koul 2001).

3.3.3 Validity

Since there was no other such tool available to establish concurrent validity of the prepared scale, the investigator made efforts to ensure and establish content validity of the tool in the following manner:

1. The investigator framed the items after critically studying the relevant literature.
2. The items were subjected to a detailed, systematic and critical inspection by experts.
3. The preparation and scoring procedure was based on the best and up to date theory.
4. Only highly discriminating items which showed significant internal consistency were included in the scale, following item analysis (Koul, 2001) and (Kelly, 1939).
5. The items that were retained as a result of item analysis were again
shown to a number of experts for obtaining their verdict on validity.

6. Lastly, the investigator went ahead to use the tool only after she succeeded in convincing the supervisor about the high face and content validity of the tool.

The final form of the statements including in the scale are given below

1. I attend to the social and emotional development of my students.
2. I do not worry about the problems of my students after the school hours.
3. I gear my teaching according to the mental level of my students.
4. I make my students understand that work never goes in vain in life.
5. I do not try to find what my students are in terms of their aptitude.
6. Students can approach me even after the school time.
7. I do not use opportunities for giving suggestions to my students for the improvement of their health.
8. I remain alert to the learning difficulties of my students.
9. I do not worry about the individual differences among the students.
10. I find that there are some students who cannot be taught by any means.
11. I do not pay any special attention to the study habits of my students.
12. I give opportunities to my students to make decisions independently.
13. I do not waste time in discussing social problems with my students.
14. I try to motivate the community members to participate in the welfare projects of the government.
15. As a teacher I cannot help taking castes of students into account.
16. I keep regular contact with the parents of my students.
17. I have no responsibility outside the school.
18. I take my students for visit to slums and orphanages.
19. I am not concerned as a teacher about the different social segments from which my students come.
20. I take it as a personal responsibility to persuade parents to send their children to school.
21. I keenly discuss with my students what is good and bad in the society outside the school.
22. I avoid discussions with any colleagues about the prevalent moral and social values.
23. I try to educate people to seek the help of the Govt. for each and every work concerning the upliftment of their area.
24. I try to help the Govt. in implementing population control programmes.
25. It is through teaching that I get the true joy of my life.
26. My domestic problems do not distract me from my duties as a teacher.
27. I learning difficulties of my students automatically disappear with the passage of time.
28. I work hard as teacher so as to win the best teacher award.
29. I come across problems in teaching for which there are no solutions.
30. I find nothing wrong in persuading students to take tuitions for getting better results.
31. If my students fail to understand the contents, I take it as something is wrong with my method of teaching.
32. I seek parents’ suggestions for improving the quality of education.
33. In the present conditions in the country, I find it difficult to remain fully committed to my teaching profession.
34. I keep my mind focused on the learning activities of my pupils.
35. I get annoyed with those who down-grade teachers.
36. My confidence in my profession gets actually shaken.
37. Seminars and conferences I attend make no difference in my teaching.
38. I discuss my professional problems with my colleagues.
39. I do not make any special efforts for attaining professional excellence.
40. I do present papers in seminars and conferences held for teachers.
41. I find nothing is lacking in my way of teaching.
42. I do not waste time in reading subjects other than my own subject.
43. I motivate my colleagues and friends to join literary drives.
44. I ask my students to give their opinion about my teaching.
45. I find that scope for excellence in teaching is limited.
46. I adopt latest methodology in teaching.
47. I am left with no time to go through educational magazines and journals.
48. I try to make my teaching creative.
49. If I do not have exact knowledge of something, I carefully hide this fact from my students.
50. I find that all problems can be solved.
51. I am conscious of the effect of my conduct on my students.
52. I find it difficult to treat all my students equally.
53. I regard that teaching is the best way to serve the society.
54. I find some students do not deserve to be treated sympathetically.
55. I pay attention to my actions that may repel my students away from me.
56. I find secularism is a good policy to be adopted by teachers in our country.
57. I find that it is impossible to assess the students objectively.
58. I feel ashamed of myself if any of my students commits an immoral act.
59. I do not forgive my students for their mistakes.
60. I do not find anything wrong in helping students by taking their tuitions.

3.4. EMOTIONAL MATURITY SCALE (EMS)

To study emotional maturity of secondary school teachers Emotional Maturity Scale (EMS) developed by Yashvir Singh and Mahesh Bhargava (1990) was used.

EMS is a self-reporting five points scale, consisting of 48 items. The authors of the scale prepared a list of five broad factors of emotional immaturity. The factors are:

(a) **Emotional Unstability**: This is a broad factor representing syndrome of lack of capacity to dispose off problems, irritability, needs constant help for one's day to day work, stubbornness and temper tantrums.

(b) **Emotional Regression**: It is also a broad group of factors representing such syndromes as feeling of inferiority, restlessness, hostility, aggressiveness and self-centeredness.

(c) **Social Maladjustment**: Such a person shows lack of social adaptability, shows hatred, is reclusive but boasting, is liar and shirker.

(d) **Personality Disintegration**: It includes all those symptoms, which represent disintegration of personality, like reaction and phobia formation, rationalization, pessimism, immorality etc. such a person suffers from inferiorities and hence reacts to environment through aggressiveness, destruction and has distorted sense of reality.
Lack of Independence: Such a person shows parasitic dependence on others, is egoistic and lacks ‘objective interests’. People consider him as unreliable person.

The distribution of items under the five categories in the scale is shown in table 3.4.

### Table 3.4

**Distribution of items in Emotional Maturity Scale**

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Categories</th>
<th>Item Number in Scale</th>
<th>Total items</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>Emotional Unstability</td>
<td>1 to 10</td>
<td>10</td>
</tr>
<tr>
<td>b</td>
<td>Emotional Regression</td>
<td>11 to 20</td>
<td>10</td>
</tr>
<tr>
<td>c</td>
<td>Social Maladjustment</td>
<td>21 to 30</td>
<td>10</td>
</tr>
<tr>
<td>d</td>
<td>Personality Disintegration</td>
<td>31 to 40</td>
<td>10</td>
</tr>
<tr>
<td>e</td>
<td>Lack of Independence</td>
<td>41 to 48</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td></td>
<td><strong>48</strong></td>
</tr>
</tbody>
</table>

#### 3.4.1 Scoring

EMS is a self-reporting five-point scale. Items of the scale are in question form, demanding information for each in either of the five options ‘very much’, ‘much’, ‘undecided’, ‘probably’, ‘never’. The items are so stated that if the answer is in positive, i.e., ‘very much’, a score of 5 is given, for ‘much’ 4 is given, for ‘undecided’ 3, for ‘probably’ 2 and for ‘never’ a score of 1 is given. Therefore, the higher the score on the scale, greater is the degree of emotional immaturity and vice-versa.

#### 3.4.2 Reliability

The reliability of the scale was determined by Test-retest method and inter-consistency method. Test-retest reliability was measured by administering the scale upon adults including males and females. The time internal between the two testings was six months. The test-retest reliability
coefficient was found to be 0.75. Interval consistency of the scale was checked by calculating the coefficient of correlation between total scores and scores on each of the five areas; \( r \) being .75 for emotional unstability, 0.63 for emotional regression, 0.58 for emotional maladjustment, 0.86 for personality disintegration and 0.42 for lack of independence.

### 3.4.3 Validity

The scale was validated against external criteria i.e. ‘Gha’ area of adjustment inventory for adult college students by Sinha and Singh (1980). Product moment correlation obtained between total scores on ‘Gha’ items and total scores on ‘EMS’ was 0.64 (\( N = 46 \)). The scale was administered upon 198 educated adults belonging to rural and urban background. The three quartiles were calculated for the scores of all the 198 respondents. Quartile deviations were as

\[
\begin{align*}
Q_1 &= 80 \\
Q_2 &= 88.5 \\
Q_3 &= 106.7
\end{align*}
\]

The interpretation of raw scores as given in the scale manual is given in the Table 3.5.

<table>
<thead>
<tr>
<th>Scores</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>50 – 80</td>
<td>Extremely Stable</td>
</tr>
<tr>
<td>81 – 88</td>
<td>Moderately Stable</td>
</tr>
<tr>
<td>89 – 106</td>
<td>Unstable</td>
</tr>
<tr>
<td>107 – 240</td>
<td>Extremely Unstable</td>
</tr>
</tbody>
</table>

The scale has a wide range of applicability across different sections of adult population. Copy of the scale is appended.