Chapter – III

Methodology
One of the major aims of the education is the development of wholesome personality, the teacher trainees have to learn to teach. Learning to teach like teaching itself is always the process of ‘becoming’, a time of formation and transformation, of scrutiny into what one is doing and one can become. According to Nemser-Feinman and Floden (1986) teachers go through three stages when they start teaching: adequacy, mastery and impact awareness of the effect of their teaching on the students. Pre-service courses should prepare the future teacher for adequacy and mastery. The teacher preparation to a large extent depends both on learners’ characteristics and learning environment during the teacher training programme. Education has become highly competitive and commercial in many countries. On the basis of high academic performances the students get selected to good professional and non-professional colleges, better courses of study, and eventually better jobs. Finally the outcome of education determines the quality of life, progress and status of people living anywhere in the world.

Mental health is a normal state of well-being, a positive way but a quality of life. It is a condition which is characterized of the average person who meets the demands of life on the basis of his own capacities and limitations. The term “Mental Health” connotes a quality of wholeness and soundness. Mental health is not mere absence of mental illness, but it is an active quality of individual’s daily living. Mental health governs what an individual feels about others and what he is able to face the realities of life. It is rooted in his ability to balance feelings, desires, ambitions, ideas and competence. The individual’s condition or state of mental health continuously changes depending upon his own actions and the factors acting upon him. A mentally healthy person is expected to be a well adjusted one, living in harmony internally as well as externally. He is expected to be quite happy and at easy with everyone in all spheres of life (home, school, college, work and society). As a master of the society, he is expected to be productive and constructive. He is expected to be happy, contended, satisfied with a sense of subjective well-being, enjoying every bit of his life.

Academic stress is inevitable in any educational institution. In optimal limits it mobilizes the potentialities of the students to perform more effectively. However, increasing amounts of academic stress for prolonged periods may create over-
whirling frustration and anxiety in the students which may in turn adversely affect their academic success, morale, formation of attitudes, mental health, study habits and academic and personal adjustment styles. A number of studies (Edwards, 1976; Srivastava, 1977; Villanova and Bownas, 1984; Rajendran and Kaliappan, 1990; Naresh Kumar, 2008; FigenEres, 2011; Pratik Upadhaya 2013) pointed out the existence of academic stress in the students. The source of academic stress may vary from institution to institution and individual to individual. Excessive academic stress may lead to a burnout, which is characterized by emotional exhaustion, feeling of low accomplishment and depersonalization of students.

It is generally believed that habits are not innate abilities like intelligence, but they are generally formulated, acquired, cultivated and fixed by repeated efforts. There may be a sizeable number of pupils who possess the required level of intelligence but fail to maintain expected academic records. Such unhappy occurring may happen because of deficit in study habits of the students. It has been observed that students who take admission in colleges after having successfully completing the admission test, do not maintain the same level of achievement during their stay in the college and sometimes they exhibit poor performance as compared to their previous records. This happens because the students do not take advantages of the classroom teaching, library and of the other facilities provided in the college. On the other hand, students who did not have good previous academic record, may be found better in their academic performance simply because they spend more time in their study and develop sound study habits. By looking the results in almost every entrance examinations, eligibility tests or University examinations, this may be concluded that the students who fail to achieve the required standard, are the victims of poor study habits.

STATEMENT OF THE PROBLEM

It is evident that academic achievement is influenced by various factors and the educationalist and psychologist approach to behavior is analogous. The present investigation “Some Factors Related to Academic Achievement among Teacher Trainees” The objectives and hypotheses, method and the material chosen to accomplish the requirements of the study are discussed in this chapter.
OBJECTIVES
1. To examine the influence of Academic Stress on Academic Achievement among Teacher Trainees.
2. To investigate the influence of Mental Health on Academic Achievement among Teacher Trainees.
3. To enquire the effect of Study Habits on Academic Achievement among Teacher Trainees.
4. To find out the impact of demographic variables such as Gender, Locality and Type of Management on Academic Achievement among Teacher Trainees.

Based on the above objectives the following hypotheses are formulated for the present study:

HYPOTHESES:
1. There would be significant impact of Academic Stress on Academic Achievement among Teacher Trainees.
2. There would be significant impact of Mental Health on Academic Achievement among Teacher Trainees.
3. There would be significant impact of Study Habits on Academic Achievement among Teacher Trainees.
4. There would be significant interaction among the three independent variables - Academic Stress, Mental Health and Study Habits among Teacher Trainees.
5. Gender, locality and Type of Management would significantly influence on Academic Achievement among Teacher Trainees.
6. Gender, Locality and Type of Management would significantly influence on various components of academic stress among Teacher Trainees.
7. Gender, Locality and Type of Management would significantly influence on various components of mental health among Teacher Trainees.
8. Gender, locality and Type of Management would significantly influence on various components of Study Habits among Teacher Trainees.
9. There would be significant impact of academic stress, mental health and study habits on academic achievement (methods) among teacher trainees.
10. There would be significant relationship among Academic Stress, Mental health, Study Habits and Academic Achievement among teacher trainees.
10a. There would be significant relationship among Academic Stress, Mental health, Study Habits and Academic Achievement among teacher trainees.
10b. There would be significant relationship between Mental Health and Study Habits among teacher trainees.
Methodology

POPULATION

The population of the present study comprised of 1200 B.Ed., teacher trainees and the colleges were selected randomly in and around Chittoor, Kurnool, Nellore, Prakasam, Kadapa, Guntur, Krishna and East Godavari districts of Andhra Pradesh. Purposive sampling technique was used. Subjects were divided into male and female teacher trainees from government and private colleges. Out of 1200 subjects 591 were male and 609 were female teacher trainees. From each category 600 teacher trainees from government and 600 from private colleges courses were taken into consideration.

Psychological tools namely study habits, academic stress and mental health inventories were administered to subjects and finally 400 teacher trainee students were selected (based on the scores obtained by the subjects, the subjects are divided into high and low groups) for the present investigation and the particulars of the sample were shown in table-1.

<table>
<thead>
<tr>
<th>Study Habits</th>
<th>Academic Stress</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low</td>
<td>High</td>
</tr>
<tr>
<td></td>
<td>Mental Health</td>
<td>Mental Health</td>
</tr>
<tr>
<td>Poor</td>
<td>55</td>
<td>53</td>
</tr>
<tr>
<td>Good</td>
<td>52</td>
<td>42</td>
</tr>
<tr>
<td>Total</td>
<td>107</td>
<td>95</td>
</tr>
</tbody>
</table>

Table-1: Distribution of the Sample

Variables Studied

To test the hypotheses, the following variables are studied.

Independent Variables

- Academic Stress
- Mental Health
- Study Habits

Dependent Variable

- Academic Achievement

Description of Tools

A bio-data sheet was prepared seeking information about the respondents’ Gender, Locality, Type of management, type of family, education and occupation of the parents etc.
Methodology

**Study Habits Inventory (SHI)**

Study habits inventory developed and standardized by Prabhakar (2006) was used in the present study. The inventory consisted of 63 items with eight areas. Each item of the inventory was arranged on a unipolar 5 point scale with responses—‘Always’, ‘Often’, ‘Sometimes’, ‘Seldom’, and ‘Never’. At the end of each item five brackets were given and the pupils were asked to put a tick (√) in the appropriate bracket, which they felt was very near to their study habit. The test is a combination of both positive and negative items.

The inventory was set with eight areas: They are

1. Reading Skills and Note Taking (items 1 to 8)
2. Home Environment and Planning of Work (items 9 to 18)
3. Planning of the Subject (items 19 to 26)
4. Habits of Concentration (items 27 to 34)
5. Preparation for Examination (items 35 to 42)
6. Social Relationships in Study (items 43 to 48)
7. College Environment (items 49 to 54) and
8. General Habits and Attitude Towards Study (items 55 to 63)

Among these 63 items 33 are positive; (items - 1, 2, 4, 5, 7, 8, 9, 10, 11, 12, 14, 16, 17, 18, 19, 25, 26, 27, 32, 34, 40, 43, 44, 45, 47, 49, 51, 52, 53, 54, 55, 56 and 62) and the remaining 30 are negative items (items 3, 6, 13, 15, 20, 21, 22, 23, 24, 28, 29, 30, 31, 33, 35, 36, 37, 38, 39, 41, 42, 46, 48, 50, 57, 58, 59, 60, 61 and 63). The responses were scored with the help of the prescribed key for nine areas of study habits. For positive items the numerical values are 5 for Always; 4 for Often; 3 for Sometimes; 2 for Seldom and 1 for Never. For negative items 1 for always; 2 for often; 3 for sometimes; 4 for seldom and 5 for never. On the whole higher the score indicates good study habits. The correlation co-efficient was calculated; for the half test is 0.88 and the full test is 0.94. It shows that the reliability of the instrument is very high. The reliability of the instrument was established by test-retest method (r = 0.81).

**Scale for Assessing Academic Stress (SAAS)**

Scale for Assessing Academic Stress (SAAS) developed by Sinha, Sharma and Mahendra (2001) was used. This scale consist a 30 item self-report measure. Subject has to answer each item for the presence or absence of academic stress symptoms. Scale for assessing academic stress (SAAS) measures five independent factors of academic stress indicating expression of academic stress through different channels.
Methodology

They are

1. Cognitive (items 1-7)
2. Affective (items 8-13)
3. Physical (items 14-18)
4. Social and Interpersonal (items 19-23) and
5. Motivational (items 24-30).

The subject has to choose yes answer for the presence of academic stress or no answer for the absence of academic stress and the responses obtained by the subjects scored as:

1 = the presence of symptoms and
0 = the absence of symptoms.

On the whole high score indicates high academic stress and low score indicates low academic stress. The test retest reliability of the test was 0.88 and split-half reliability is 0.75 indicating adequate reliability of the scale.

Mental Health Analysis

Mental health Analysis Questionnaire re-standardized by the Reddy and Nagarathnamma (1992) are used to assess the mental health status of the subjects. The questionnaire consists of 100 items and the items are classified into two-broad categories 1. Assets and 2. Liabilities. Each question has two answers i.e., ‘YES’ or ‘NO’ to which the individual answers in the manner he/she feels best. The items were randomized and printed.

Assets

Mental Health assets are attitudes, beliefs, aspirations, skills and achievement which contribute to a sense of well-being and which support progress towards realizing one’s fullest potentialities. These are sought to be amplified for promoting mental health.

Liabilities

Mental health liabilities are threats to emotional security which impede the attainment of needs, satisfactions and directives. These threats are to be minimized or corrected for promoting mental health.

Each of these categories is sub-divided into five categories having 10 items in each. They are:
Methodology

Assets

1. **Close Personal Relationships**: Formation of strong emotional bonds with others. Items sample possession of the confidence and respect of family and friends, participation in personal decisions; a feeling of security in relationships with authorities; and congenial association with members of both sexes.

2. **Inter-personal Skills**: Skills acquired for dealing effectively with others. Items sample sensitivity to the feelings of others; good sportsmanship; Fairness; diplomacy; tactfulness; helpfulness; loyalty and a genuine interest in others.

3. **Social participation**: Participation in a variety of activities involving others. Items sample sharing group responsibilities holding membership in organization; enjoying mutual entertainment and joint hobbies and assisting in planning group projects.

4. **Satisfying work and Recreation**: Satisfaction stemming from recreational, educational and vocational activities. Items sample feelings of the importance of such undertakings; interests in a variety of pursuits, and participation in them beyond minimum requirements.

5. **Adequate Outlook and Goals**: Possession of generally positive and constructive attitudes in developing personal long-range plans and goals, items sample willingness to uphold the moral values of society, such as respect for the rights of others, sense of justice, adherence to the golden rule and belief in equity of opportunity.

Liabilities

1. **Behavioral Immaturity**: Unacceptable or socially disapproved behavior for chronological age and maturity. Items examine proneness to selfishness, rudeness; impatience, spitefulness; and a lack of consideration for others.

2. **Emotional Instability**: Presence of non-adjective behavior. Items inquire into evidence of disturbances in emotional tone; extreme swings of mood, lack of responsiveness; marked over-sensitivity and unusual fears.

3. **Feelings of Inadequacy**: Feelings of personal insecurity; failure to cope adequately with everyday problems; tendencies to underrate oneself because of imagined weakness or inferiorities; feelings that insufficient recognition has been won, lack of coverage; and felt needs to excuse shortcomings.
**Methodology**

4. **Physical Defects**: Over-sensitivity to one’s own physical particulars and unfortunate handicap which set the individual apart from others. The situations from which items are drawn are limited mainly to those involving external defects of an unusual or particularly noticeable nature, such as skin blemishes; extremes in weight or height irregular features, poor skeletal structure, unsightly teeth and sensory impairments.

5. **Nervous Manifestations**: Behavior which is symptomatic of underlying emotional stresses. Items inquire into any neuron-muscular, alimentary and sensory disturbances not organically determined, such as insomnia and other sleep irregularities, fingernail biting, muscular tenseness, lack of appetite, dizziness, stomach upsets, squinting, trembling twitching and other allied conditions.

The responses were scored with the help of the prescribed key for components of Assets and Liabilities. For assets number of ‘Yes’ response was scored and for liabilities number of “NO” responses were scored. Every individual gets two set of scores on the two components, namely Mental Health Assets and Mental Health Liabilities. Overall a high score indicates good in mental health status. A split half reliability of the inventory was established separately for assets and liabilities of the mental health inventory. The correlation for the two sub-divided tests was 0.79 and 0.59 for assets and liabilities respectively.

**Administration of the Tools**

The subjects were tested in two sitting sessions in two days. In the first sitting during the first period in the morning section the subjects were selected randomly in a class (not more than twenty subjects) and they were assembled in a room, along with their lecturer. Short introduction was given to the students and the students were instructed that these tests were no way concerned to their academic subjects and thus they were encouraged to give responses honestly and frankly. The bio-data sheet was distributed to subjects and asked to fill the particulars. After completion of the bio-data the subjects were directed how to do the inventories. Doubts if any were cleared. The tests were administered in two sessions. In the first session mental health inventory were administered. To make the student familiar with the test, the instructions were read with the test, to the group and the task of selecting the answer in terms of their importance were explained while the students were responding to the
questionnaire. The investigator checked them to find out whether the students were responding the questionnaire. The time taken to complete the first sitting was approximately 100 minutes.

The second day i.e., in second session the study habits and academic stress inventories were administered to the same group. The subjects who have taken in the first testing were requested to assemble again. To them the questionnaire of study habits and academic stress inventories were distributed along with the responses sheets. They were instructed how to do the test as mentioned in the manual. The instructions were read aloud to the group. Doubts if any were cleared. As soon as they finished, the booklets and the response sheets were collected. The students finished their second sitting in responding to the tests and the time taken to complete the second sitting was also about 90 minutes. After the collection of these questionnaires and the responses sheets, they were subjected to scoring as per the scoring procedure described earlier.

**Socio-Demographic Variables**

- Gender
- Locality
- Type of Management

**RESEARCH DESIGN**

As there are three independent variables in the investigation and each variable is further classified into two, a 2X2X2 factorial design would be employed. Thus Study Habits (poor and good), Academic Stress (low and high) and Mental Health (poor and good) would be employed.

**STATISTICAL TECHNIQUES TO BE USED**

The obtained data would be analyzed statistically in order to test the hypotheses. The Means and SD’s of the scores would be calculated. To find out the effects of independent variables, the data would be further subjected to ANOVA (Analysis of Variance) and correlations would be used whenever necessary.