CHAPTER 3

REVIEW
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REVIEW OF PAST RESEARCHES

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CHAPTER - III
REVIEW OF PAST RESEARCHES

3.1 INTRODUCTION :
Contribution of individuals and related literature is considered important for a new research. They are necessary in this era of explosion. Principles, thoughts and theories produced by others become a source of inspiration and become light for new researchers.

Research is ceaseless by nature as the society is always in need of new, advanced, psychological and scientific methods, things, facilities etc. In the same way, here in the field of education research is a must. Every new educational research is not new because some times research is not effective for the improvement of teaching process, tools, evaluation methods, student-teacher relation etc. If such progressive results can not be obtained, the work carried out will be quite fertile.

Review of related literature allows the researcher to acquaint himself with the current knowledge in the field or area which he is going to conduct his research. Regarding requirements and importance of review of related literature Soti Shivendra and R. K. Sharma (1997) writes that “Review of related literature

(1) Enable the researcher to define the limits of his field.
(2) Avoid unfruitful and useless problem areas.
(3) Avoid unintentional duplication of well established findings.
(4) Gives an understanding of the research methodology.
(5) Makes aware of previous recommendations.”

From review of related literature the researcher can get new direction in selection of subject, method, data analysis in the matter of population, sample and planning. New directions are transpired with the help of related literature. Research on dimensions of aptitude, teaching aptitude developed a vision into researcher to look better at the problem.

Aptitude has been an active area of research for last many decades. The researchers have devised deep into the major traits related to an aptitude. They have also tried to scan the by ways of aptitude. The academic dimension of this area has become a dynamic zone for training college, education departments, schools and policy makers.

Hence the researcher commenced studying references at world level, there after at national and state level.

3.2 OBJECTIVES OF THE REVIEW OF PAST RESEARCH WORK :
Objectives work like a torch in leading and guiding the investigator for his work while studying the related literature, following objectives were fullfilled.

(1) Researcher gets outline of his research work and get classifications regarding the design of the study.
(2) Researcher becomes familiar with the work done in the subject in his area, country and abroad.
(3) Particularly by studying research thesis, he gets vision to work and details about the scope
of future study, related to the subject.

(4) Entire process of analysis, data collection, tests, sample selection, analysis of all this informations are very much helpful to the researcher in doing his work smoothly.

(5) Reseacher relizes the vitality and seriousness of the problem at state level, national level and international level.

(6) It is also an advantage to the reseaeher that he becomes aware of limitations of his study and hence with the delimitations of the study.

(7) When researcher studies the researches done abroad, he gets well informed about the latest method of education and tools prevailing there on.

(8) After studying such researches, experimenter’s insight is developed with which he gets some innovative idea to work in his field.

(9) He comes to know about research possibilities for future, where some more work can be done.

This task of reviewing has endowed the researcher with a lot of insight which she utilized for designing her programme and also for evaluating it. Many research papers, studies and articles and books and websites have been reviewd in this chapter.

The fore-runner always provide inspirations; their cumulative efforts have created a “history of research adventures”. The present study has utilized them as a major source of wisdom and also as a compass when the journey was tough. The summary of some selected and relevant studies is presented here.

3.3 RESEARCH DONE ABROAD :

3.3.1 - Study-1 : Dennis Errol Persona\(^1\) studied Teachers’ expectations and their verbal and non-verbal behaviour in relation to high and low achievement. He used adapted class-room observation record (ACOR) and Flander’s class-room interaction technique on 37 white female student teachers (1971-72 batch) of Georgia and found no significant relationship between expectations and behaviour of the student - teachers.

3.3.2 - Study-2 : Te Shoma Almaz\(^2\) has studied Teacher’s characteristics in relation to skills with the variables like race, gender, nativity etc. He used skill tests and college records for the sample of 2569 students of Illionis in 1982-83. He obtained a correlation coefficient of 0.20 (PL 0.01) and found better relationship with females against males and native against migrated students.

3.3.3 Study-3 : Ruth White\(^3\) wanted to study how teachers in schools perceived teacher evaluation as they practised and the one they perceived. He also wanted to determine the degree to which teaching assignment, gender and teaching status influenced the currently perceived and expected teacher evaluation. He used demographic survey questionnarie and perspective statements and observed that his sample of junior and senior high school teachers wanted improvement in almost all aspects of teacher evaluation process with factors such as evaluation, follow-up, teacher-involvement, time-alloted, sound evaluation criteria and training of evaluation etc.

3.3.4 Study-4 : Hockersmith\(^4\) has studied with entitled ‘A study of Personality, Learning and
Thinking Variables of student-Teachers'. The objectives of the study were to determine the relations exist among type of personality, style of learning and thinking, keeping in view the field of study and gender. The tools used for the data collection were (1) Meyers - Briggs Type Indicator (2) Kolbs Learning style Inventory Form G and (3) Human Information processing survey. The sample of the study was consist of 81 student teachers of Shippenburg University. The study found no significant relationship between:

1. Style of Learning and Personality Type.
2. Style of Thinking and Personality Type.
3. Thinking style and Elementary of Secondary Teachers.
4. Personality, Learning or Thinking style and Gender.

3.4 DOMESTIC RESEARCHES:

Several related researches are found in India in the area of Teacher Education, Teaching and Teacher Behaviour and Teaching Aptitude are as shown hereunder:

3.4.1 Researches Related to Teacher Education


Objectives (1) To determine the specific factors for success in the teacher education course. (2) To construct tools to assess the specific factors (3) To fix criteria of success in the teacher education course (4) to find out relationships of each factor with the criterion (5) To investigate the predictive validities of factors taken together in terms of the criterion (6) To determine the relative efficiency of the factors in predicting the criterion

Sample: 343 student - teachers who had Kannada as the medium of instruction in the B.Ed. course in seven colleges of education affiliated to Karnatak University.

Tools: The tools used were interest in Teaching Inventory, Attitude towards Pupils scale, Verbal Ability Test Abstract Reasoning Test - all developed by the investigator.

Statistical Analysis: Correlation and regression analysis techniques were used.

Major findings: (1) All the six factors, namely, interest in teaching, attitude towards pupils, verbal ability, abstract reasoning, personality factors G and O emerged as cirrelates of the criterion. (2) All factors, except attitude towards pupils, taken together were potent in predicting success in the teacher education course (3) Abstract reasoning made the highest contribution. (4) The preductive validity of the beltery with the criterion was 05344 (N=340) (5) A regression equation predicting the criterian was developed.


Objectives: (1) To find out whether difference in the psycho-sociological factors of the student-teachers accounted for the significant differences in their achievement. (2) To identify the psycho sociological factors that significantly predicted the achievement of student teachers (3) To study the
contribution of psycho-sociological factors in predicting the achievement of student-teachers signly and jointly (4) To select an appropriate predictive test battery from among the tests used in the study and to compute a multiple regression equation to predict the future achievement of student-teacher. (5) To study the attitude of student-teacher towards the training given to them with a view to suggesting suitable changes in the course.

Sample: A stratified random sample of 450 student-teachers from the 12 teacher-training institutes of Andhra Pradesh was selected for the study.

Tools: 16 P.F. personality factor questionnaire of cattled form C, an attitude Inventory consisting of two attitude sub-sales constructed by the investigator, a common socio-economic status scale for rural and urban areas constructed and standardized by Aaron, all of Karnataka University and the Personal Data Schedule constructed by the investigator.

Statistical analysis: Multiple regression analysis and split-half reliability method was used.

Major finding: (1) Socio-Economics status and caste influenced all the three achievement variable, namely theory, practical and total achievement. (2) Attitude towards profession and attitude towards training influenced theory and total achievement significantly (3) Age and locality of student-teachers were found to have significant influence on theory and total achievement (4) None of the 16 PF factors and sex were found to have any influence on the three achievement variable (5) SES and attitude towards profession were the only significant predictor of the criterion of practical achievement.


Objectives: (1) To find out the effect of sex, academic qualification and experience on the achievement of trainees in compulsory subjects for the B.Ed. (2) To find out the relationship between sex, academic qualification and experience and intelligence, interest and attitude of B.Ed. pupils-teachers (3) To study the relation between intelligence and achievement interest and achievement and attitude and achievement of B.Ed. pupil-teachers.

Sample: 500 pupil-teachers both male and female, experienced and inexperienced, and graduate and postgraduate pupil-teachers of colleges of education affiliated to Nagpur University.

Tools: PSM Verbal Intelligence Test by Dani, Teacher Attitude Inventory by Ahluwalia and Interest Inventory adopted from the Devon Interest Inventory tools were used.

Statistical Analysis: To analyze the data, mean standard deriation, standard error, critical ratio, coefficient of variation, analysis of variance, coefficient of correlation partial and multiple correlation and the multiple regression equation were used.

Major Finding: (1) There was no significant difference between the achievements of male and female, graduate and post graduate and experienced and inexperienced pupil-teacher in four compulsory subjects. (2) There was a significant difference between the scores of male and female and inexperienced and experienced pupil teachers in respect of intelligence but no significant difference in intelli-
gence was found between graduate and postgraduate teachers. (3) Male and experienced pupil-teachers appeared more intelligent than female and experienced pupil-teachers. (4) In the case of interest, there was a significant difference between male and female and inexperienced and experienced pupil-teachers. (5) There was significant difference between the scores of male and female inexperienced and experienced pupil-teachers regarding attitude. (6) The correlations between intelligence and achievement \((r = 0.31)\), interest and achievement \((r = 0.11)\) and attitude and achievement \((r = 0.16)\) were positive and significant at 0.01 and 0.05 level of significance.


Objectives: (1) To compare the four contrasted teaching success groups (the high success and the low success and the very high success and the very low success), with respect to each of the personality variables for unselected and equated groups (equated for intelligence; intelligence and age; intelligence, age and sex), (2) To explore the association between ‘teaching performance in science’ and each of the personality variables, for the whole sample (3) To compare the personality factors structures of the four contrasted teaching success groups with respect to the personality variables used in the study and (5) To develop a prediction equation with ‘teaching performance in science’ treated as the dependent variable and any two of the most predictive variables treated as independent variables.

Samples: (1) The sample for the study comprised 537 student-teachers, of whom 258 were specializing in teaching of physical science and 279 in teaching of natural science. (2) The sample was stratified further on the basis of sex and area of residence.

Tools: (1) Kerala Socio-personal Adjustment Scale, the Kerala Musculinity-Femininity Scale, the Kerala Introversion-Extraversion Scale, the Kerala Manifest Anxiety Scale, the Kerala self-concept Scale-the prepared by A. S. Nair. (2) Scale of Attitude towards Academic work (A.S. Nair and Mercy Abraham), Test of Scientific Attitude (A.S. Nair and Sobhana Devi), Rating Scale for Evaluation of Lesson Plan of Student-Teachers (A.S. Nair) the Kerala Group Test of Intelligence (A.S. Nair and C. Anandavalli Amma), and a General Data Sheet.

Statistical Analysis: The statistical procedure adopted were testing the difference between means for large independent groups, large dependent sample and small dependent samples, the product moment co-efficient of correlation, multiple and partial correlations, multiple regression equations, and factor analysis.

Major Finding: (1) Two variables, scientific attitude and personal adjustment, differentiated significantly between the unselected contrasted teaching success groups; three variables, introversion-extraversion, scientific attitude, and personal adjustment, differentiated significantly between the constrained teaching success group when equated for intelligence and intelligence and age; and four variable, introversion-extraversion, scientific attitude, personal adjustment, and attitude towards academic work, differentiated between constrained teaching success groups when equated for intelligence, age and sex. (2) When quae'd for intelligence, six of the nine personality variables showed significant
correlations with teaching performance in science. The variables were personal adjustment, scientific attitude, introversion-extraversion, attitude towards academic work, science interest, and social adjustment. The estimation of common variance showed that the highest percentage of overlap was between personal adjustment and teaching performance. Five orthogonal factors were obtained for each of the four contrasted teaching success groups. Comparision of the factor structures of the four contrasted teaching success groups indicated the presence of similarities as well as dissimilarities. A predication equation was obtained with personal adjustment and scientific attitude as the predictor variables for predicting teaching performance.

All these studies pointed out that characteristics like personal adjustment, attitude towards professional work, scientific temper etc. related to performance in the B.Ed. and could predict teaching performance. Some researches went a step further and related characteristics of student-teachers with their attainment of teaching skills.


Objectives: (1) To identify those male and female teacher trainees who obtained high and low scores on the component of Integration of Instructional Skill (IIS), as measured by the Indore Teaching Assessment Scale (ITAS), in terms of their personality traits, intelligence level and attitude towards teaching (2) To determine the relationship between the scores on different personality factors of the teacher-trainees and their scores on the component of IIS, (3) To determine the relationship between the scores of teacher-trainees on intelligence test and IIS components (4) To determine the relationship between the scores of teacher-trainees on intelligence test and attitude towards teaching scale (5) To find out the interrelationships between scores on the various personality factors, intelligence and attitude towards teaching of male and female trainees scoring high and low on the IIS components, and (5) To develop specification equations for the prediction of IIS ability of the student teachers—male and females.

Sample: (1) 241 B.Ed. teachers-trainees (97 males and 144 females), who were in the age group of 22-26 years were selected (2) The total sample was divided into four sub-sample—males and females scoring high and low on the IIS component.

Tools: (1) A Hindi Version of Cattell’s 16PF Questionnaire Form ‘A’ developed by Kapoor (1970), The Culture Fair Intelligence Test Form ‘B’ Scale-3 adapted by Rao (1965) (3) Ahluwalia’s Teacher Attitude Inventory (1974) and the Indore Teaching Assessment Scale developed by Passi, Deshmukh and Sharma (1980) were used.

Statistical Analysis: (1) The Statistical techniques used for the treatment of data were the product-moment coefficient of correlation and specification equations which were developed on the basis of beta weights and intercept constants.

Major Finding: (1) Significant personality traits of the males scoring high on the IIS component as identified on the basis of investigation were: they were suspicious, self-opinionated and hard to fool (L+) and experimenting, critical, liberal, analytical (2) Females scoring high on the IIS component
were also found to have the L+. factor (3) Males and females scoring low on the IIS component were found to be more intelligent; males were more reserved, detached, critical and cool; whereas females were conscious, preserving, rule-bound and tolerant of traditional difficulties, respecting established ideas (4) The correlation between intelligence test scores and scores on the component of integration of skills was found to be significant but it was negative in the case of the male sample. No relationship between these two variable was found for the female sample (5) No significant correlation was found between the scores on attitudes towards teaching and scores on the IIS component for the male as well as female samples.

3.4.1.6 - Study-10 : Upadhyay, B. A., “Comparative Study of the Attitude, value and Motivation of the Pupil Teachers of Sampumanand Sanskrit Vishwa Vidyalaya and Other University of Uttar Pradesh (in Hindi)”, Ph.D. SSU, 1984.

Objective : To compare the attitude, values and motivation of the teacher-trainees of Sampurnanand Sanskrit University and other university of Uttar Pradesh.

Sample : 200 teachers-trainees were selected. The sample consisted of 60 subjects from Sampurnanand Sanskrit University and 140 subjects from the other university of Uttar Pradesh.

Tools : (1) Survey method was used (2) Ahluwalia’s Teacher-Attitude inventory, Kulshrestha’s Hindi Adaptation of Allport Vernon’s Study of Values (3) Tripathi’s Personality Test were used

Statistical Analysis : Mean, SD and t-test were used

Major Finding : (1) The teacher-trainees of Sanskrit University did not differ significantly on the motivational dimensions of orderliness, exhibition, cooperation authority, nurturance, change and heterosexual relations with teacher trainees of the other universities of U.P. (2) Sanskrit University teacher trainees were significantly higher on the motivational dimensions of acquisition, egoism, humility and tolerance in comparison to their counterparts in other universities of U.P. (3) Teacher-trainees of Sanskrit University were significantly lower on the motivational dimensions of brotherhood, insight and aggression (4) Teacher trainees of Sanskrit University had a significantly higher positive attitude towards the teaching profession than the teacher-trainees of other universities. (5) Teacher-trainees of Sanskrit University did not differ significantly from teacher-trainees of other universities in values, except the economic value in which they were significantly lower than the teacher-trainees of other universities in UP.

3.4.1.7 Study-11 RAI, G. "A Study of Self-Concept of the Prospective Teachers, Doctoral Thesis in Education", Banaras Hindu University, 1983.

Objectives : (1) To study the nature and extent of self-concept of prospective teachers. (2) To study sex, rural-urban, religious and caste differences in the self-concept of prospective teachers. (3) To study the relationship of self-concept with intelligence and adjustment. (4) To predict self-concept on the basis of intelligence and adjustment scores.

Sample : 603 prospective teachers drawn from seven teacher-training institutions of Varanasi

Tools : The data were collected with help of (1) Joshi’s Group Test of General Mental Ability (2) Sexena’s Adjustment Inventory (3) Teacher Self-concept Scale constructed and standardized by the
investigator

**Statistical Analysis** : For analysing the data and drawing conclusions mean, SD, analysis of variance, coefficient of correlation and multiple regression analysis were used.

**Major finding** : (1) The self-concept of prospective teachers was positive. (2) Female unmarried, post graduate and Hindu prospective teachers and significantly better self-concept than their male, married, graduate and non-Hindu counterparts respectively. (3) The relationship between self-concept, adjustment and intelligence was positive and significant. (4) The investigator found by calculating Multiple R and setting a prediction equation that self-concept could be very well predicted from an individual’s intelligence and adjustment score.


**Objectives** : (1) To study adjustment difference among different groups according to the different levels of cultural and educational variables, viz., sex, marital status, age, teaching experience, educational qualification, faculty, residential accommodation, social status, economic status and status in family of teacher-trainees of Gujarat state. (2) To observe the effect of interaction on income, social status and residential accommodation on adjustment. (3) To observe the effect of interaction of faculty, teaching experience and sex on adjustment. (4) To observe the effect of interaction of age, marital status and educational qualifications on adjustment. (5) To study the adjustment difference among the different groups according to different levels of teacher aptitude, self-concept and academic achievement.

**Sample** : A cluster sample of 1635 student-teachers, 979 male and 659 female from different universities of Gujarat state.

**Tools** : (1) The Teacher Aptitude test by Upadhyay and the Self-Concept Inventory by Desai. (2) Adjustment inventory adopted by researcher from Rotter’s FSB, was administered.

**Statistical Analysis** : Critical ratio, analysis of variance, coefficient of correlation, test of linearity and multiple correlation techniques were used.

**Major finding** : (1) Female trainees were more adjusted than male trainees. (2) There was no significant effect of marital status, level of education, status in family and age on adjustment. (3) Socially backward trainees were more adjusted than non-backward trainees. (4) Trainees of different colleges differed significantly in adjustment. (5) Trainees coming from the science faculty had the lowest adjustment. (6) The middle income group was most maladjusted.


**Objectives** : (1) To investigate the personality traits of supervisors of the area. (2) To analyse the effect of personality traits on the supervision practices of the supervisors. (3) To study the needed resources for personality development of supervisor in view of present educational needs.

**Sample** : Ten affiliated colleges of Avadh University having a B.Ed department were included in the study. 72 supervisors (teacher – educators) were selected.
Tools: (1) 16 PF Questionnaire (Form –A) of R.B.Cattell. (2) Self-made Questionnaire were used.

Statistical Analysis: The collected data were tabulated and analysed using suitable statistical techniques.

Major finding: (1) Situation, facilities, admission procedure and supervisors’ qualities were not found suitable in view of poor supervision in the B.Ed. departments. (2) Supervisors were not unanimous on the supervision practices adopted by them. (3) Supervisors were found to have above average creativity and leadership quality, and paucity of university professors’ qualities. (4) Male supervisors had a higher mean as compared to female supervisors on the ‘teacher success’ factor. (5) The personality factors of the supervisors were found to have effect on their supervision practices.

3.4.1.10 Study-14 Pandya, P.14, “Personality Profiles of Student Teacher”, Ph.D. Edu. DHSGV, 1983.

Objectives: (1) to prepare and draw up the personality profiles of B.Ed. student-teachers in general. (2) To find out the differences in the personality profiles of male and female student-teachers. (3) to discover age difference in the personality profiles of student-teacher. (4) To assess the differences due to teaching experience in the personality profiles of student-teachers. (5) To understand the differences in the socio-economic status and the personality of student-teachers.

Sample: 150 student-teachers admitted to four teacher training colleges affiliated to Sagar University, during the session of 1980-81. The age of sample ranged from 20 to 41 years. Of these 70 were males and 80 were females; 79 were direct and 71 were departmental student-teachers.

Tools: (1) Cattell’s 16 PF Questionnaire Form A translated in to Hindi by Kapoor (2) Socio Economic Status Scales Forms A and B(Urban) developed by B. Kuppuswamy.

Statistical Analysis: Mean, critical ratio and chi square were used.

Major finding: (1) The student-teachers in general were found to possess the personality profiles as A, B, C, E, F, G, H, I, L, M, N, O, Q, Q2, Q3, and Q4. (2) The male student-teachers were observed as possessing A, B, C, E, F, G, H, I+, L, M, N+, O, Q1, Q2, Q3+, and Q4−. Male group scored significantly higher on factors E, H, M, and Q3 than the female group, whereas, female group outscored males on O, Q2 and Q4 factors of personality. (3) The personality profile of B.Ed. students in the age group of 20 to 30 years was: A, B, C, E, F, G, H, I, L, M, N, O, Q, Q2−, Q3+, and Q4−. Significant differences were observed on factors B and Q4− between the age groups of 20 to 30 years and 31 to 40 years, in favour of the latter.


Objectives: (1) To prepare a reliable and valid tool to measure social maturity. (2) To study the social maturity of B.Ed. college students in the North-Central Region of Thailand. (3) To study the social maturity of B.Ed. college student coming from single-sex schools and mixed schools. (4) To compare the social maturity of B.Ed. college students of different sexes. (5) To compare the social
maturity of B.Ed. college students of different age groups. (6) To study the social maturity of B.Ed. college students in relation to the level of students.

**Sample**: 922 students including boys and girls from the North Central Region were selected.

**Tools**: For measuring SES and Personality traits, A.S. Patel’s SES Scale and Personality Inventory were translated into English and Thai were used.

**Statistical Analysis**: 2*2*2 factorial design and analysis of variance technique were used.

**Major finding**: (1) The B.Ed. college students with high SES background were found more socially matured than those coming from low socio-economic status strata. (2) The students having dominate personality traits were more socially matured than those having submissive personality trait. (3) The students having high leadership personality trait were more socially matured than those of having low leadership personality trait. (4) The students having radicalism personality trait were more socially matured than those having conventionalism personality trait. (5) The students having low neuroticism were more socially matured than those having high neuroticism. (6) The students having high emotional maturity were more socially matured than those having low emotional stability. (7) The students having good personal social adjustment were more socially matured than those having poor personal-social adjustment.


**Objectives**: (1) To find out the adjustment problems of student-teachers in Thailand taking into consideration independent variables like sex, year of the study, subject teaching, urban and rural background, attitude towards profession and student-control ideology.

**Sample**: 500 student-teacher selected from four teacher colleges in Thailand.

**Tools**: (1) A Personal Proforma Questionnaire. (2) An Adjustment Inventory (Pagedar and Gajjar, 1964). (3) An Attitude Scale to measure attitude towards the teaching profession (Sakdivira-Vangsa 1976). (4) Student control Ideology Scale (Willower et al., 1967).

The latter three scales were adapted into Thai version by the investigator. The reliability coefficients of these adapted tools were 0.75 and 0.88 and 0.83.

**Statistical Analysis**: Descriptive statistical techniques were used for analysis of the data.

**Major finding**: (1) The most frequent problems of first and fourth-year students were related to educational aspects. (2) First-Year female student-teachers had better adjustment than first-year male student-teachers. (3) The senior trainees had better adjustment than the junior ones. (4) Arts trainees had better adjustment than science trainees. (5) Senior trainees staying in college hostels were better adjusted socially in comparison with day-scholars.


**Objectives**: (1) To find out the relationship between real and ideal self-concepts of teacher trainees. (2) To find out the relationship of the real and ideal self concept with some selected dimensions.
of personality of teacher-trainees. (3) To find out the relationship between the teacher-trainees' attitude towards the teaching profession and their real and ideal self-concept.

**Sample**: 432 teacher-trainees from secondary level and elementary level were selected.

**Tools**: (1) 16 PF Questionnaire developed by Cattell and adopted in Hindi by S.D.Kapoor (2) Attitude Scale was developed by the investigator which has reliability coefficient 0.75

**Statistical Analysis**: t-test and factor analysis were used.

**Major finding**: (1) Self was a unitary concept and could not be split into parts. (2) Self was a segment of personality. (3) Shrewdness was the only personality variable that characterised the self-concept of teacher-trainees. (4) None of the identified personality factors, except the self-concept factors, contributed to the attitude of teacher-trainees.


**Objectives**: (1) To study the values (V), adjustment (AD), and teaching attitude (TA) of pupil-teacher (PT) at various levels of socio-economic status (SES) (2) To find out the inter-relationship among V, AD, and TA of pupil-teacher at various levels of SES. (3) To find out the significant differences among the various SES groups with special reference to V, AD and TA. (4) To extract the various factors on the basis of different variables measures through tests of V, AD and TA.

**Sample**: 500 pupil-teachers (367 male and 133 female) of the B.Ed. class, randomly selected from ten affiliated colleges, having B.Ed. classes of Avadh University.

**Tools**: (1) The Personal Values Questionnaire (PVQ) by Sherry and Verma. (2) Adjustment Inventory for College Students (AICS) by Sinha and Singh. (3) The Teacher Attitude Inventory (TAI) by Ahluwalia. (4) Socio-economic Status Scale (SESS) by Kuppuswamy were used.

**Statistical Analysis**: The collected data were tabulated and analysed using suitable statistical techniques.

**Major finding**: (1) The factors that emerged out of factor analysis of five adjustment, six attitude and ten value variables in order of merit were Adjustment, attitude, Citizenship, Aesthetic, Health and Hedonistic. (2) In home adjustment (HAD) the female PTs of the total SES group were significantly better than male PTs. (3) The correlations of the total SES group, along with its sub-groups, revealed that adequate and effective HAD promoted better adjustment in emotional, educational, health and social areas, and inculcated an attitude conducive towards classroom teaching child-centered practices among pupils and teachers to a significant level. (4) In health adjustment (HEAD) MPTS of the upper-lower SES group were significantly better.

All these studies have mainly concentrated on investigating characteristics of student-teachers belonging to different groups based on sex, socio-economic status, educational qualifications and subject of teaching offered.

3.4.2 **Related Researches on Teaching and Teacher Behaviour**:

A factorial study of certain personality variables of popular teachers in secondary schools was carried out by Kaul (1972) who found that popular teachers distinguished themselves as more outgoing,
intelligent, emotionally more stable, sober, conscious, venture some, tough minded, shrewd, placid, controlled and relaxed. Popular teachers were high on theoretical, social, political and religious values and were low on economic and aesthetic values.

3.4.2.1 Study-20 Maheshwari, V. A. "Study into the classroom verbal interaction pattern of Effective and ineffective teachers, Ph.D. Education", Meerut University, 1976.

Objective: To explore the classroom verbal interaction patterns of effective and ineffective teachers

Sample: A sample of 200 teachers consisting of 100 effective (50 males and 50 females) and 100 ineffective (50 males and 50 females) were selected.

Tools: (1) Minnesota Teacher Attitude Inventory (2) Rating of the Principals (3) Rating of students and students result.

Statistical Analysis: The collected data were tabulated and analysed using suitable statistical techniques.

Major Finding: (1) Effective teachers used the categories of accept feeling, praise, uses student ideas, questions, student response and initiation whereas ineffective categories in the classroom behaviour. (2) The effective teachers involved more indirect influence, student initiation teacher response ratio and pupil steady state ratio, whereas ineffective teachers involved more direct teacher talk silence or confusion steady state ratio and non-stimulating situation in class room behaviour. (3) In the effective teacher's teaching student response and initiations were followed teacher's praise accepting feeling whereas in ineffective teacher's teaching, student response and initiation were followed by direction and authority. (4) The effective teachers involved more creative teaching models.

In respect of teaching efficiency Debnath (1971) reported that age, experience, academic achievement and professional training were significant determinants of teaching efficiency, whereas superior efficiency went with a favourable attitude and good adjustment. He also developed a questionnaire for measuring teacher's efficiency.

Khanna (1985) found that successful teachers had traits which were positively helpful and valuable for the mental health of the individual whereas unsuccessful teachers had traits which tended to lead the person to a kind of maladjustment.

Sharma (1971) found that teaching aptitude, academic grades, socio-economic status, teaching experience and age in the order of their arrangement appeared to be sound predictors of teacher effectiveness.

Mehta (1972) conducted factor analyses teaching ability of student-teachers and found teaching ability to be a factor which was loaded with achievement variables of training.


Objectives: (1) To examine the role of IQ, attitude, academic achievement, content knowledge factors on the teacher effectiveness. (2) To examine and identify the factors favourable for high teacher effectiveness (3) To examine and identify the factors responsible for low teacher-effectiveness.
Sample: 93 student-teachers of K.K. College of Education, Pune, were selected.

Tools: A seven point rating scale prepared by the K.K. Teacher College was used for measurement of teacher effectiveness. An attitude scale prepared by the same college was used for measurement of attitude of teachers towards pupils. The NVTI was used for measurement of IQ. A content test in all the methods was administered. The examination results were collected as indicators of students’ academic achievement.

Statistical Analysis: The collected data were tabulated and analysed using suitable statistical techniques. The percentile rank score and rank difference coefficient of correlation were used.

Major Finding: (1) The IQ of teacher trainees was found to be a useful predictor. (2) Teacher’s attitude towards their pupils did not show any significant relationship with teacher behaviour in the case of high achievers. (3) In the case of low achievers, it showed a negative significant relationship. (4) Students’ knowledge in their respective subject area was found to be the best predictor.

3.4.3 Related Researches on Teaching Aptitude

There are several studies which are directly related to the present work. Review of these studies are present herewith.


Objective: To develop a test in English for measuring teaching aptitude of secondary school teachers to serve the two-fold purpose of vocational selection and vocational guidance.

Procedure: The researcher identified seventeen factors contributing to success in teaching. He has found five factors viz. mental ability, attitude towards children, adaptability, professional information and interest in profession are to be really contributing to in teaching.

Sample: 530 trainee (male & female) drawn from the S.T.T. Institutes of Gujarat and Maharashtra.

Tools: He has observed that the aptitude for teaching has a normal distribution.

Statistical Analysis: For analysing the data and drawing conclusions mean, SD, analysis of variance, coefficient of correlation and multiple regression analysis were used.

Major Finding: (1) The reliability of test by split-half method - 0.878 + 0.011, Hot’s method .802 & K-R formula 20-0.803. So the reliability of the teaching aptitude test is fixed up to be 0.80 (2) The validity of the test was estimated by correlating the test-scores with the criterian score is 0.502+0.026


Objective: To develop a test in Hindi for measuring teaching aptitude of elementary school teachers.

Procedure: The investigator identified twentyone factors contributing to success in teaching on the basis of job analysis. This number was finally reduced to six on the basis of rating by 275 judge consisting of training college principals and teachers, Head Masters and Inspectors and experienced teachers of elementary schools. The judges ranked these twentyone factors in order of their importance.
to the success in teaching in elementary schools. Working knowledge of the subject matter, which was one of the six factors was excluded from the test as it needs construction of an achievement test battery or components, Final components which were included in the battery are given below:

1. Mental Ability
2. Attitude towards Children
3. Adapatability
4. Professional Information and
5. Interest in Profession

On the basis of unanimous judges, an initial pool of 213 items was reduced to 145 items.

Sample: The test consisting of 145 items was administered on 370 trainees, randomly selected from two training schools. After item analysis 120 items were retained for the found form of test. The test was standardized on a sample of 380 male & 120 female trainees selected at random from different teaching schools.

Tools: Chi-square test was applied to test normality of the distribution.

Major Finding: The reliability co-efficient of the test calculated by split half method, test retest method and K. R. formula 20 were 0.98, 0.97 and 0.84 respectively.

Study-3: Upadhyay B. M. "Comparative Study of the Attitude, value and Motivation of the Pupil Teachers of Sampumanand Sanskrit Vishwa Vidyalaya and Other University of Uttar Pradesh (in Hindi)", Ph.D. SSU, 1984.

Objectives: (1) To plan, construct and standardize an aptitude test in Gujarati for secondary school teachers. (2) To study some correlates of aptitude for teaching such as sex, socio-economic background, academic discipline and previous of experience as teacher.

Sample: 1409 student from nine colleges of education Gujarat were selected.

Tools: Test was construct and standardize by the researcher. The coefficient of stability by test-retest method was 0.77

Statistical Analysis: Mean, SD, ANOVA were used. Percentile, Percentile Score, Normalised Standard Scores, Stanine Scores were established.

Major Finding: (1) It was found that sex, and socio-economic background were not related to aptitude for teaching. (2) Academic discipline and previous experience of teaching were found to be significantly related to aptitude for teaching.


Objectives: (1) To construct an aptitude test for primary school teachers of Gujarat State. (2) To standardize the same.

Sample: The test was standardized on the sample of 1,700 trainees (850 male and 850 female) the first year class of various PTCs of Gujarat State.
Tools: The test was in Gujarati and covered ten teacher traits, viz., interest in the profession, attitude towards community, mental ability, professional information, attitude towards children, skill in teaching ability to maintain discipline, health and interest in reading. These traits were grouped and the test consisted of four subset.

Statistical Analysis: Mean, SD, ANOVA were used. Percentile, Percentile Score, Normalised Standard Scores, T-score were established. The split-half reliability was found to be 0.70 and validity 7.74

Major Finding: (1) The final test form contained 125 test items which had been drawn from the pilot test form. (2) Items with 0.20 or more discriminating value in the pilot form were selected for the final form. (3) The test was standardized on the sample of 1,700 trainees (850 male and 850 female) the first year class of various PTCs of Gujarat State. (4) The mean score was 78.85 and the medium 80.95. (5) The distribution of the scores was negatively skewed and platykurtic.


Objectives: (1) To study the nature and extent of self-concept of prospective teachers. (2) To study sex, concept of prospective teachers. (2) To study sex, rural-urban, religious and caste differences in the self-concept of prospective teachers. (3) To study the relationship of self. (4) TO predict self-concept on the basis of intelligence and adjustment score.

Sample: The study was conducted with a normative survey design on a sample of 603 prospective teachers drawn from seven teacher-training institutions of Varanasi.

Tools: The data were collected with help of Joshi’s group test of general mental ability, Saxena’s adjustment inventory and a teacher. Self-concept scale constructed and standardized by the investigator.

Statistical Analysis: For analysing the data and drawing conclusion mean, SD t-test, analysis of variance, co-efficient of correlation and multiple regression analysis were used.

Major Finding: (1) The self concept of prospective teacher was positive (2) Female, unmarried, post graduate and Hindu prospective teachers had significantly better self-concept than their male married, graduate and non-Hindu counterparts respectively (3) The relationship between self-concept. (3) The relationship between self-concept, adjustment and intelligence was positive and significant and intelligence was positive and significant. (4) The investigator found by calculating multiple R and setting a prediction equation that self-concept could be very well predicted from an individual’s intelligence and adjustment score.


Objectives: (1) To find out aptitude, intellectual level and morality of prospective teachers (2) To compare these factors between male and female teachers (3) To compare teachers of different disciplines in relation to these factors.
Sample: 412 student-teachers who were studying in ten teachers' colleges of three universities of Rajasthan.

Tools: (1) Teaching Aptitude Test (2) Group Mental Ability Test (3) Self made Teacher Morality Test were used.

Statistical Analysis: The collected data were tabulated and analysed using suitable statistical techniques. The percentile rank score and rank difference coefficient of correlation were used.

Major Finding: (1) About 75% of student-teachers were below average in aptitude and intellectual ability. (2) An significant difference was found in teaching aptitude ability in sex-wise and discipline-wise comparison. (3) A positive correlation was found between teaching aptitude, intellectual level and morality of prospective teachers.

Study-7: Meera S. “Relationship between teacher behaviour and teaching aptitude of teacher-trainees”, M.Phil Degree, Pune University, 1988

Objectives: (1) To explore the classroom verbal behaviour of student-teachers through flander's technique. (2) To find out if there is any relationship between teacher behaviour and teaching aptitude. (3) To study the relationship between various aptitude factors and different components of classroom behaviour. (4) To compare the behaviour of student-teacher who have secured high scores in the aptitude test with those who have low aptitude scores.

Sample: A random selection of 60 student-teachers undergoing the B.Ed. course of the Avinashalingam Institute for Home Science and Higher Education. (a deemed university) Coimbatore, constituted the sample. There were 12 student-teachers from each of the five disciplines-English, History, Biological Science, Physical Science and Mathematics in the sample.

Tools: The tools used were Flander's (1970) Ten category system of Interaction Analysis and the Teaching Aptitude Test of Thilagam.

Statistical Analysis: For analysing the data and drawing conclusion mean, SD t-test, analysis of variance, co-efficient of correlation and multiple regression analysis were used.

Major finding: (1) There was a significant negative correlation between silence, confusion ratio and the three aptitude factors and the total aptitude score. (2) Two of the aptitude factors, namely, Mental Ability and General Information were significantly correlated with content cross ratio. (3) The high-aptitude group and the low-aptitude group differed significantly in four behaviour components. (4) Teacher talk, Teacher response and contest emphasis were significantly higher in the high-aptitude group.

Study-8: Anantha Krishna, Janaki “A comprehensive study of socio-economic and educational background of students of selected B.Ed. courses in Pune”, M.Phil Degree, Pune University, 1988

Objectives: (1) To study the social, economics academic and personal background of the B.Ed. students of Pune University. (2) To study the attitude of the B.Ed. students towards teaching, pupils and method of teaching before and after course.

Sample: Three B.Ed. colleges of Pune University and one B.Ed. college of S.N.D.T. University (44)
were taken up for study. Based on random sampling about 72% & the students of 1996-97 were selected for detailed study. The descriptive survey method was used to collect data from students and college offices.

**Tools:** Test was constructed and standardized by the researcher. The coefficient of stability by test-retest method was 0.77

**Statistical Analysis:** The descriptive survey method was used to collect data from students and college offices. Mean, SD, ANOVA were used. Percentile, Percentile Score, Normalised Standard Scores, Stanine Scores were established.

**Major Finding:** (1) In Pune city, a greater number of female students (59.13%) showed inclination for the B.Ed. course than the male students (40.87%). (2) Students opting for the B.Ed courses were not so meritorious. (3) It was found that the female respondents came from better economic background as compared to the male respondent. (4) The majority of respondents had opted for the course due to their interest in teaching.

**Study-9:** Rohit K. Pandya has constructed a teaching aptitude test of secondary school teachers of Gujarat state in the context of some psycho-socio variable.

**Objective:** (1) To construct and standardize a tool for measuring the teaching aptitude of secondary school teachers of Gujarat state. (2) To study the teaching aptitude of secondary school teachers in the context of certain psycho-socio factors namely sex, area, vocational aspiration, leadership, emotional stability, radicalism vs conservation, and SES

**Procedure:** The researcher identified 22 factors contributing the success in teaching. This number was finally reduced 11 on the basis rating by judges. Final components which were included in the test are given below:

(1) Interest in profession.
(2) Attitude towards children.
(3) Adaptability
(4) Mental ability
(5) Skill in teaching
(6) Attitude towards community
(7) Teacher-Pupil relationship
(8) Professional information
(9) Ability to maintain discipline
(10) Health
(11) Interest in reading

**Sample:** The test was standardized on a sample of 272 male and 232 female trainees selected at random from different B.Ed. Colleges.

**Tools:** Test was constructed and standardized by the researcher. The coefficient of stability by test-retest method was 0.77

(45)
Statistical Analysis: Mean, SD, ANOVA were used. Percentile, Percentile Score, Normalised Standard Scores, Stanine Scores were established.

Major Findings: (1) There is no significant effect of area on the score of teaching aptitude test. (2) There is significant effect of sex, vocational aspiration, SES, leadership, emotional stability on the score of teaching aptitude test. (3) The reliability of a test was 0.80 and validity was 0.78.

Study-10: Pathan Kherunnisa M. Ph.D. Sardar Patel University, 2001

Objectives: (1) To construct and standardize teaching aptitude test. (2) To establish norms of the teaching aptitude test. (3) To establish reliability and validity of the aptitude test. (4) To study the effects of sex, area, S.E.S, I. Q. and social maturity on the scores of teaching aptitude.

Procedure: The investigator identified eighteen factors contributing to success in teaching. This number was finally reduced to five on the basis of rating by judges. Final components which were included in the battery are given below:

(1) Aptitude towards children.
(2) Adaptability to new situations.
(3) (a) Interest in profession (b) Interest in educational activities.
(4) Mental Ability (i) Analogy (ii) Classification (iii) Series.
(5) Knowledge of school subjects (i) Gujarati (ii) Hindi (iii) English (iv) Social studies (v) Science (vi) Maths

Sample: The test was standardized on a sample of 446 male & 436 female trainees selected at random from different P.T.C. Colleges.

Tools: (1) General Ability Test - Dr. Pallavi P. Patel (2) Socio-Economic status scale - Dr. K. G. Desai (3) Social Maturity Scale - Dr. Rashida Diwan tools were used.

Statistical Analysis: Mean, SD, Kurtosis, Skewness, t-test and ANOVA technique were used.

Major Findings: (1) There is no significant effect of sex, area, S.E.S and social maturity on the scores of Teaching Aptitude test. (2) I. Q. has significant effect on the scores of Teaching Aptitude Test. (3) There is no effect of interaction between I.Q. and S.E.S. IQ and S.M. and S.E.S & S. M. on the scores of Teaching Aptitude Test. (4) There is no significant effect of interaction between I. Q., S.E.S and S.M. on the scores of Teaching Aptitude Test.

Study-11: Kaur Dushyant has studies Academic Achievement, Teaching Aptitude and the personality traits as the predictors of success in Elementary Teacher Training.

Objectives: (1) To study academic achievement at +2 level in predicting success in elementary teacher training course in terms of achievement teacher education rating and school teacher rating. (2) To study the teaching aptitude in predicting success in terms of achievement, teacher educator rating and school teacher rating. (3) To study personality traits as indicator of success in elementary teacher training course in terms of achievement, teacher educator’s rating and school teacher rating. (4) To determine the relative predicative value of academic achievement, teaching aptitude and personality traits responsible for the success in elementary teacher training course.
Sample: It is a co-relational study conducted over 400-teacher trainees selected randomly from seven District Institute of Education and Training of NCT of Delhi.

Tools: In the present study, investigator selected following tools for collection of required data.

1. Percentage of marks obtained at +2, (Index of scores of ETE teacher trainees in the examination conducted by the board of Sr. Secondary Examination)

2. Teaching Aptitude Test (constructed by Dr. Jai Prakash and Dr. R. P. Srivastava).

3. 16 PE by R.B. Cattel Form A Hindi edition prepared by Dr. S. D. Kapoor was used.

Statistical Analysis: Mean, SD, Kurtosis, Skewness, t-test and ANONA techniques were used.

Major Findings: (1) Academic achievement of student teacher at +2 level has high correlation with all the indicators of success in the elementary teacher education course except with school teacher rating. It contributed 23% in the predicting success of external examination of ETE course. The findings of the present study are in agreement with the finding of Sabharwal (1999) and Debmath (1971).

(2) Teaching aptitude of student teacher has high relationship with all the indicators of success in the ETE course. The findings of the study are in consonance with the findings of study by Goel (1993). The components of teaching aptitude namely ‘Cooperative attitude’ and ‘Optimism’ have contributed significantly to all the indicator of success.

(3) Academic Achievement, teaching aptitude and personality traits, all together contributed 25% to the total assessment on indicator of success in ETE course.

3.5 UNIQUENESS OF THE PRESENT STUDY:

Indian society is changing fast. The adolescents are the worst affected due to the adverse effects of westernization, consumerism, invasion of alien culture, unnatural competition and rampant unemployment, effective and competent teachers are the hope along with the parents. Qualification prescribed by NCTE for the selection of B.Ed. trainees must be strictly adhered to and revised and upgraded from time to time. There is an urgent need to rectify the weaknesses prevailing in present selection of B.Ed. trainees in order to develop quality and competence among prospective teachers so that they may be able to fulfill their changed roles and responsibilities effectively and successfully. The aptitude test for selecting B.Ed. students should test the mental ability, behaviour towards children, adaptability and interest in profession and knowledge of the subject matter. The idea of aptitude test on the line of combined entrance tests (CETs) may be applied to ensure uniform standard and time for completing the course. Thus the present study differs remarkably that the studies reviewed.

The study reviewed reveal that a few researchers have undertaken study on Teaching Aptitude of secondary school teachers in the context of some psycho-socio variables. A number of studies have been cited in India, where in findings related to aptitude of teachers have been arrived at, but very few of them are on secondary school teachers aptitude in the context of some psycho-socio variable such as socio-economic status, personality factors etc.

It is all the way possible that the impetus gained by educational researcher, in the past two decades, the government efforts for improvement in quality of education, changing socio-economic and environment status of teachers and their pay scales, improvement in classroom methods and a number of related factors may have largely contributed to a change in a trainee’s aptitude towards teaching (47)
profession.

Hence, it would be worthwhile to measure the same with a new tool and explore its relationship with other potential variables and thereby suggest some programmes to be undertaken by the future researches in the field of teaching aptitude.

3.6 CONCLUSION:

A review of the past researches which were related mostly to the present problem provided an insight into selection of proper method for construction of tool and for collection of data and its analysis. The review also helped the investigator in describing the method which would be useful for the present study.

In the next chapter details about selection of components for Teaching Aptitude Test, planning for construction of Teaching Aptitude Test, selection of sample, procedure for data collection is given.
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