CHAPTER – 2
REVIEW OF RELATED LITERATURE
AND PAST STUDIES

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CHAPTER – 2
REVIEW OF RELATED LITERATURE
AND PAST STUDIES

The investigator, in this chapter, presents a survey of major studies reviewed in the area along with a conceptual framework on Teaching Aptitude.

This chapter is discussed and presented in two parts:

(A) Teaching Aptitude, Affecting Factors on it and its Measurement
(B) Review of Past Studies

(A) TEACHING APTITUDE, AFFECTING FACTORS ON IT AND ITS MEASUREMENT:

2.1 Introduction:

Teaching offers a rewarding career for those who can combine the scientific and artistic aspect of the job. The role of teacher is a complex one that has been shaped by both historical and contemporary circumstances. If we see the past of teaching, nineteenth-century society emphasized teacher’s moral character and conduct, whereas the late twentieth century has emphasized teachers’ accountability and their use of appropriate pedagogical practices.

Teaching in the twenty-first century will probably be characterized by a demand for quality education, increasing racial and ethnic diversity among students, and more accountability. Effective teaching is characterized by teachers who have control of the knowledge base on teaching, can execute a list of best practices, have attitude and skills
necessary for reflection and problem solving and consider learning to teach a lifelong process. In this chapter the researcher has tried to discuss what teachers do, particularly behaviours associated with the executive, the interactive, and the organizational functions of teaching.

Until very recently teachers were subjected to minimal preparation and few expectations as to performance. However, standards for teachers introduced during this century began to emphasize liberal arts preparation and some exposure to pedagogy. During the next few decades this trend will accelerate rather dramatically.

Current trends in teacher testing are likely to continue and to lead to extended training programs for teachers. Before getting a license to teach we may be required to demonstrate through examination our knowledge and skill in teaching. Competences in academic subject matter will no longer be sufficient, particularly for teaching in classrooms that are culturally diverse and contain students with various handicapping conditions. Twenty-first century teachers will be required to have a command of various knowledge bases like academic, pedagogical, social and cultural, and to be reflective, problem-solving professionals. The following description, as appeared in a report A National Prepared: Teachers for the Twenty-First Century sponsored by The Carnegie Forum on Education and the Economy (1986)¹ highlights the aptitude for teaching:

*Teachers should have a good grasp of the ways in which all kinds of physical and social systems work; a feeling for what data are and the uses to which they can be put; an ability to help students see patterns of meaning where others see only confusions; an ability to foster genuine creativity in students; and the ability to work with other people in work*
groups that decide for themselves how to get the job done. They must be able to learn all the time, as the knowledge required to do their work twists and turns with new challenges and the progress of science and technology. Teachers will not come to the school knowing all they have to know, but knowing how to figure out what they need to know, where to get it, and how to help others make meaning out of it.

Teachers must think for themselves if they are to help others think for themselves, be able to act independently and collaborate with others, and render critical judgment. They must be people whose knowledge is wide ranging and whose understanding runs deep.

For recruitment to a job in any profession, the selection of suitable personnel by means of adequate tool and techniques is of a paramount importance. In view of the fact that individuals differ in their abilities and aptitude, necessary standardized tests of abilities and aptitude have a vital role to play in this direction, the teaching fraternity has an outstanding contribution to make in the development and prosperity of nation.

Hence an almost care is required to be reckoning in the task of teaching profession for selecting suitable persons. Selecting right type of person for the teaching profession necessitates the use of an aptitude for teaching. To be successful and effective in teaching a factor like an aptitude for teaching has got too reckoned. Selection of teachers on the basis of aptitude test will contribute to educational advancement and improvement. As such test is presently not available, it is felt necessary to construct and standardize it. For this it is also necessary to discuss the dimensions of teacher aptitude and factors affecting it.
2.2 Definitions of Aptitude:

The term ‘aptitude’ is generally used loosely both by laymen and by vocational psychologists and counselors. Its meaning varies from person to person and time to time.

‘Aptitude’ as defined by various dictionaries and by various psychologists was summarized as follows:

In the ‘Dictionary of Education’, ‘aptitude’ is described as

"Aptitude is innate capacity to or ability in a given line of endeavor such as a particular art, subject or vocation."

In the same volume, capacity is defined as the potentiality of a person for given function as conditioned by the total pattern of causes, partly hereditary and partly is environmental.

Ability is defined as

“the actual power present in an organism, to carry the completion of any act or to make adjustments successfully.”

According to H.C. Warren in his ‘Dictionary of Psychology’

“Aptitude is a condition or set or characteristics, regarded as symptomatic of an individual’s ability to acquire with training some (usually specified) knowledge, skill or set of responses such as the ability to speak a language, to produce music etc.”

It should be noted that nothing is said in this definition as to whether the “condition or set of characteristics” is acquired or inborn. This is quite proper. Too often it has been implied that the term ‘aptitude’ has a reference to a person’s native endowments only.
Bingham remarks

“Tests of aptitude according to this mistaken view should be undertaken to disclose the natural bent, the strength of different dispositions, tendencies and capacities inherent in the individual’s original construction, without regard to modifications in these capacities which have occurred in the course of experience.”

But this cannot be done. At least it is not possible with means at our disposal today. Even if it were, the resulting information would not be what is needed in individual counseling. We want the facts about a person’s aptitudes as they are at present-characteristics now indicative of his future potentialities.

The same author continues

“When appraising aptitudes, we are on the alert for symptoms of ‘ability to acquire’ a genuine absorption in the work, as well as a satisfactory level of competence. Indeed, a person who cannot develop a liking for an occupation along with Proficiency in it cannot properly be said to have an aptitude for it because he lacks the necessary drive.”

Using Warren’s definition as his starting point, Bingham in 1937 defined aptitude as

“A condition symptomatic of a person’s relative fitness, of which one essential aspect is his readiness to acquire proficiency, his potential ability and another, is his readiness to develop an interest in exercising that ability.”

It is clear, therefore, that Warren’s emphasis is on ability to acquire ‘with training’ some specified knowledge, skill or set of responses should
be qualified by mentioning that the training need not necessarily be formal or overt, it may be self-imposed practice or even undirected experience.

With these interpretations, the definition of aptitude as given above corresponds to both technical and general usage.

Super\textsuperscript{7} points out that both Warren’s and Bingham’s definitions imply that – “An aptitude is not necessarily an entity but rather a constellation, the set of characteristics which enables one person to learn something which may even be different from that which enables another person to learn the same thing.”

Seashore and Van Duson, as quoted by Super\textsuperscript{8} has attempted to define the term more rigidly, saying that

“An aptitude is a measure of the probable rate of learning, which results in interest and satisfaction and is relatively specific and narrow.”

Super\textsuperscript{9} favours the use of the word ‘aptitude’

“To convey the idea of a discrete, unitary characteristic which are important, in varying degrees, in a variety of occupations and activities.” Super’s point of view marks for precision in defining is not found in measures of aptitude.

A more general definition of aptitude has been proposed by Hahn and Maclean.\textsuperscript{10} point out that

“Aptitudes are correctly referred to as latent potentialities, undeveloped Capacities to acquire abilities and Skills and to demonstrate achievements.”
Aptitudes thus may be briefly regarded as potentialities which can be trained into special skills.

Psychologists put special abilities as aptitude for laymen to understand. It is related with abilities, skills and achievement toward not any definite vocation but toward a type of vocation. It can be developed by hard practice and its knowledge helps in predicting an individual’s professional success.

2.3 Aptitude Testing:

An aptitude test is a test designed to discover what potentiality a given person has for learning some particular vocation or acquiring some particular skill.

In other words, aptitude test measures abilities and interests.

In Bingham’s words11,

“They ascertain what an individual actually does in certain standardized situations, and from these measurements the estimate of capacity for future accomplishment is an inference – a statistical probability, not a certainty. Moreover, tests cannot sample all the important aspects of behaviour, nor plumb the depths of vocational purpose, even with full data at hand: An inquirer’s questions regarding his aptitudes can rarely be answered precisely and with positive assurance.”

The main function of standardized tests of aptitude is, therefore, to help in estimating the probabilities that a person would be likely to follow successfully in an occupation he is considering.

A test of aptitude samples certain abilities and characteristics of the individual as he is today. It helps to find out what he can do now and how
well he can do it. The responses he makes under specified conditions are ascertained specimens of his performance when motivated in prescribed ways. By such means, data are secured as to what the person actually dose under the circumstances imposed by the test. His behaviour is measured. From these symptoms, any estimate of his future possibilities of accomplishment is an inference.

2.3.1 Types of Aptitude Tests:

Aptitude tests may be divided in to alternative groups from a number of different points of view. One of the most important of these alternatives relates to the specificity of the aptitude aimed at. On this basis, the tests may be divided into two parts:

i. those designed to detect specific or particular aptitude, and

ii. those designed to detect general or average aptitudes.

There is hardly any aptitude test composed of a single test unit in use at the present time. Batteries are practically the universal from of aptitude test.

2.3.2 Need of Aptitude Testing:

It has been found through researches that the aptitude crystallize quite early in life, almost by the time the boy or girl reaches the age of 15+. During the school stage, therefore, it is possible to know the aptitudes of a boy or girl through his or her participation in various activities and through the aptitude tests which the psychologists and educational workers have evolved.

If a person’s capacity could be measured or at least estimated before he begins a course of training much wasted effort could be spared. Many young men aspire to be engineers, doctors or professors but many of them fail miserably even during the early
years of studies. The more accurately their capacity for such professions is known in advance of their taking up such student, the better for all concerned. Some students do not have sufficient capacity to complete college work, if they could be spotted before college entrance and advised to follow another line, much time, money and effort would be saved.

Aptitudes are, thus, very important for a person’s choice of vocation and his efficiency in the job. If a person chooses a vocation befitting his aptitudes, he proves successful in his job, and he gets chances of promotion. Success in the job in turn has a great influence on the individual’s personality. It an individual proves inefficient in his job, and he is likely to be maladjusted. Thus, aptitudes play a very important part in the development of an individual’s personality.

At all times, it is vital that each young citizen be adequately prepared to fit in to the world of work. It the wrong youngsters aspire for a particular skilled trade. Society is wasting its human assets. A wrong placement of an individual in any trade, causes a huge waste of time, money and labour to both the employees and the employers and ultimately to the society. Society needs to save or at least reduce, his loss of human productivity and its attendant crushing of the human spirit. Through aptitude testing and thereby through right placement of person in difference vocations much of this loss might be saved. The importance of aptitude testing, cannot, therefore, be questioned in any way. The need of aptitude testing is above discussion.
2.3.3 **Aptitude for Teaching:**

After independence, India has been marking all round rapid progress. Industrialization of the country has been taking place very fast. Day by day, and one after another a new industry is being started in different fields, as if to keep pace with the industrial and economic development of the country, a much rapid progress in the field of education, at all stages- primary, secondary and higher secondary and university has been taking place.

This all round development brings with it new hopes for the teeming millions of young persons in the country. A field for working is expending day by day and a choice of vocational for a young person is widening. Care should be taken, therefore, to see that they make a correct choice of vocation. A proper vocational guidance is needed and a roper selection also should be made to avoid the possible loss of human material that may result through wrong placement of the personnel.

There is a great need of marking a correct selection of teachers. The persons with high aptitude for teaching should be spotted out through proper testing and advised to join the teaching profession. The service conditions in the profession should be so modified as to attract persons with real aptitude for teaching to join the profession. No person with aptitude for teaching should be tempted to join another professing simply because of batter prospects.

Different persons in the society possess different type of aptitudes. For example, some possess markedly mechanical aptitude, some musical, some artistic, some clerical and some an
aptitude for teaching or some other profession. Different types of tests to measure different types of aptitudes should, therefore, be constructed.

When we say a person possesses an aptitude for teaching, it is assumed that he has a good proportion of the traits required for becoming successful in teaching. The magnitude of these traits may differ from individual to individual or even the number of traits possessed by each individual may also differ. Some may possess more traits, some may possess less. A number of traits required for being successful in teaching compose as a whole the aptitude for teaching. Thus the high or low aptitude for teaching is in proportion to the number of traits possessed by a person. Not only that but it also depends upon the number of the traits possessed.

To estimate, then, the aptitude for teaching, the factors that contribute to the success in teaching should be measured through proper test. The aptitude for teaching in proportion to the number of such factors and also in proportion to their magnitude and importance is conditioning success in teaching.

The tool specially prepared to measure aptitude for teaching is termed as ‘an aptitude test for teaching’.

Mental testing is not so prevalent in this country. It is just in its infancy. Only a few mental tests have so far been constructed. Most of the tests so far constructed are intelligence tests in school subjects. To help vocational guidance which is also in its infancy in this land, the need of aptitude tests in different fields is most badly required. Aptitude testing in teaching profession is a loan felt need.
2.3.4 Factors affecting Teaching Aptitude:

Some factors influencing teaching aptitude, which are discussed as under:

1) Teacher's Research Activity:

This factor is to reveal if a prospective teacher can carry-out action researches at class level to overcome common problems of the class. This would also bring out the research attitude in him/her.

2) Teacher's Reading Interest:

Reading is in fact the food for the teacher. Reading Interest is to judge how far an aspirant teacher is keep abreast of innovations in his subject matter and learning recourse he/she will need in his/her teaching.

3) Expertise in Teaching:

This is related to the teacher’s built in equipments, beliefs and reaction on the methods of teaching, medium of instruction, evaluation teachings, curriculum, co-curricular activities, behaviour with children, school inspection, classroom interaction and school administration.

4) Verbal Expression:

Verbal Expression of a teacher will assess how far he/she can convince the other. It will also find if he/she can communicate the content properly to his/her students.

5) Skilful Use of Teaching Aids:

This is to know a teacher’s skilful use of teaching aids to make learning more interesting, more effective and to create permanent
effects in the mind of his/her pupils. As saying “a picture worth ten thousand words” teaching aids creates an interest in the mind of learner. It also creates an urge and eagerness to know more about the topic he/she teaches.

6) Awareness for Education:

This is needed in a person aspiring to be a teacher as the upcoming generation is more equipped with latest information and technology to be used in learning.

7) Follow of the Code of Conducts:

Code of Conducts is the habitual behavior of a person. As a teacher she/he has to follow all the rules and regulations which can be transferred to his/her pupils. Moreover, a prospective teacher should be honest, not only in the matters of money, but also in his/her words and deeds.

8) Use of Spare/Free Time:

A prospective teacher should be interested in extracurricular activities. For that he should have the first hand knowledge of the spare-time activities.

9) Appreciation of Others:

This is to know if he/she can appreciate the good performance of his/her pupils in general. This shall be a motivating factor for his/her pupils for more powerful efforts for learning.

10) Feeling for Cooperation:

A teacher should be a human first, as he/she is the medium to pass on the knowledge from one person to other. He/she should be cooperative to his students, their parents and his staff.
11) **Knowledge of Teaching Methods:**

The knowledge of pedagogy does not make a good teacher. It is the implementation of the knowledge in classroom that makes a good teacher. So a teacher having a repertoire of various skills can make a good teacher. Hence, technical skill of a teacher is a great asset that would make him/her an effective teacher.

12) **Concept Clarity of Curriculum:**

The concept clarity of curriculum will help a teacher to direct his pupils in proper directions in a given period of time.

13) **Knowledge of Measurement and Evaluation:**

He/she should develop a variety of evaluation techniques to measure his pupils and the teaching-learning process itself.

14) **Ability of Planning Activities:**

A teacher should be an architect of his class. He/she should plan and execute different activities in such a way that the maximum lot of students can take a benefit of the same.

15) **Readiness for Taking Responsibility:**

A real teacher cannot rest with doing the work assigned to him/her. He/she would be zealous, industrious and insightful to take the lead. He/she should not be only receptive to new ideas, but should take the initiative in discussions.

16) **Readiness for Obedience:**

A teacher transfers his personality to his pupils through his behavior. So he/she himself/herself should be obedient enough to make his pupils obedient. He/she should be obedient to elders within school and without school (society).
17) **Teacher's Innovative Efforts:**

Teacher should be attentive to updates of the knowledge. So along with textbook he/she always refers reference books and magazines deliver his/her subject-matter effectively. He/she should be ready to change the method of teaching time to time. He/she should be prepared to accept the innovative approaches in teaching.

18) **Acceptance of Social Responsibility:**

Social work cannot be initiated by imitating other people. One must have a positive attitude towards the work. By having positive attitude for social work in ample quota, he/she would make a successful and efficient teacher. A teacher is always ready to go an extra miles for other people or society.

19) **Feeling for Surrender:**

A good teacher sublime himself to teaching, as he is absorbed in students and teaching. He/she is aware of his commitment and dedication to teaching. He/she should be a lifelong learner.

20) **A special Contribution of Teacher in Education:**

He/she should be interested in research on teaching. He/she should develop different models of teaching and learning by research and practice.

21) **Knowledge of Child Psychology:**

The first hand knowledge of child psychology will help the teacher to identify and resolve the common psychological problems of the pupils, teaching learning process and learning situations of his/her class like age difference, individual differences, self concept, mental health, personality.
22) **Logical Expression:**

A teacher should be a good orator, as he/she transfers his knowledge to students using his speech. He/she should arrange the subject matter along with illustrations in such a logical manner that maximum students can capture the same with ease.

23) **Knowledge of the subject-matter:**

It is to be noted that a secondary school teacher has to teach particular subject in the standard given by his/her head. This means he/she should have full command over the contents of the subject. Even otherwise, content is more important for thorough teaching with full command and confidence.

24) **In depth Knowledge of Educational Philosophy:**

He/she should have a sound knowledge of educational psychology to understand his pupils, teaching-learning process and evaluation. The same will help him to make the process of teaching more pupils’ friendly and effective.

25) **Teacher’s Affective Response:**

A stable teacher is an asset to any society. Emotionally matured teachers are most wanted when a country passes through a transition period. The change in society creates upheavals of great consequence which affect the desired goal is the work of an emotionally stable teachers of a good stable teacher.

26) **Teacher's Teaching Aptitude:**

When we say a person possesses an aptitude for teaching, it is assumed that he/she has a good proportion of the traits required for becoming successful in teaching. The magnitude of these traits may differ from individual to individual or even the number of
traits possessed by each individual may also differ. Some may possess more traits, some may possess less.

27) **Teacher’s Self-concept:**

A good teacher is aware of the limitations and positive qualities in him. The knowledge of his own self will help him to understand his pupils in difficult situations.

28) **Teacher’s Practical Nature:**

A modern teacher should not be orthodox rather he/she should be practical enough to draw-out positive things from any problematic situations.

29) **Professional Creativity:**

A professional teacher should not try to bind his pupils under traditional rules and regulations, rather he/she should give his pupils freedom enough to open themselves to their full capacity.

These characteristics are prerequisites for teaching, but they are insufficient without four higher-level sets of attributes:

- Effective teachers have control of a knowledge base that guides the art of teaching.
- Effective teachers have a list of best practices.
- Effective teachers have the attitudes and skills necessary for reflection and problem solving.
- Effective teachers consider learning to teach a lifelong process.
2.4 Measurement of Teaching Aptitude:

Aptitude test attempts to predict the capacities or the degree of achievement that may be expected from individuals in a particular activity. Aptitude tests measure and describe special abilities, capacities or talents which are supposed to determine the level of achievement that can be expected from individuals in specific fields of study and activity. Aptitude, like intelligence fall under the domain of mental measurement, but it is less confused and more specific in its nature.

The most common forms of aptitude tests are those used to judge scholastic promise and these are used in employment and educational counseling. The content of an aptitude test, however, need not be bound to a particular domain because the user will not want to make inferences about that domain. Aptitude tests are measures of potential abilities that foreshadow success on related task of some future time. The purpose is predictive and their focus often is narrowed to a single ability or small collection of related abilities. Aptitude tests, like intelligence tests, are not always easy to distinguish from achievement tests, because on the surface the content seems interchangeable. There are differences – sometimes subtle and sometimes gross – that help developers of aptitude tests accomplish purposes that achievement tests ordinarily are not intended to serve.

Aptitude tests measure ability to succeed in a particular kind of training. Scholastic aptitude tests measure ability to succeed in college or school. Vocational aptitude tests measure the likelihood of success in vocational training or in an occupation. For constructing an aptitude test in music, for e.g., one has to consider the factors which enter into good musical performance, like, ability to remember between differences in pitch, rhythm, pattern, intensity, etc. Present level of achievement in these tasks must provide a predictive index. Someone who has the aptitude to do clerical work has the prerequisite skills in manual dexterity, attention
to detail and speed with repetitive tasks to complete many types of clerical work effectively and efficiently. In most walks of life, past performance is the best predictor of future performance in the same realm of activity.

For measuring aptitude, we can use the following methods:

Method I says, "Measuring unitary factor and its comparison as an index of aptitude.

Method II – the aptitude of a candidate is known on the basis of his success or failure in an initial period.

Method III – includes Aptitude tests.

These are three types.

(i) Factorial tests.

(ii) Differential tests for measuring general aptitudes.

(iii) Aptitude test for broad areas such as mechanical, musical, vocational, etc.

Aptitude tests have proved useful in selecting individuals for particular courses of study. For research, in selection of candidates for particular profession, aptitude tests can be used.

- **Teaching Aptitude:**

  A variety of factors seems to go along with Teaching Aptitude and is depended upon certain personal traits, intellectual and temperamental (emotional) and these often will enable the teacher to get over even drastic constraints imposed on his performance.

  Related studies, as reviewed in the following chapter, also revealed that there are so many factors which have dominant roles on Teaching
Aptitude. Dushyant Kaur, in a study established that Academic Achievement, Teaching Aptitude and the personality traits as the predictors of success in Elementary Teacher training.

William Cooley and Paul Lohnes, argued that "yesterday's achievement is today's ability and tomorrow's aptitude".

Teaching needs three qualities. Knowledge is the first, communication skill is the second, aptitude is the third (The Hindu, 2002, Sept. 3). "A poor teacher tells: a good teacher teaches: an excellent teacher demonstrates: an outstanding teacher motivates"12. Time and again we hear these proverbial sayings from various sources at different occasions.

The ability of a teacher is decided in classrooms while presentation. Sitting in a good teacher's class those with aptitude, always probe whether they can teach like this and then believe they can. Students' aptitude is well influenced by the classes they sit in and the teachers who teach them in their student days from primary to college.

How teachers can be identified as teachers with teacher aptitude? Good teaching looks effortless because a teacher's knowledge and experience are invisible. Teaching is a tricky blend of action, a way of contextualizing knowledge. Good teaching is, in fact, complex and challenging, and even the best teachers face difficulties translating formal knowledge into effective practice (Blase, 2006)13.

Teaching has to be a dialogue, not a monologue. Teachers have to find innovative and effective technologies to present new concepts for motivating children. The classes have to be interactive with dialogue and sufficient learning materials.
A teacher with good teacher aptitude must be aware of the following essentials of teaching viz., plan a lesson, motivate students, curricular statements related, learning materials, teaching-learning strategies, essentials of the content, consolidation, elaborations, group activity, continuous and comprehensive evaluation, discipline, multi-level and multi grade activities, effective communication and interaction, etc.

From the past to this technological era itself, a teacher has to face so many problems inside or outside classrooms. They are related to cognitive, methodological, parental, societal, administrative, managerial, communicative, and interactive and student based.

A creative teacher can solve problems which are new to him, in a divergent manner. A teacher with creativity can arranged and implemented new ideas and technologies in the teaching-learning process in a different way.

According to Hadfield, "mental ability is the full and harmonious functioning of the whole personality". A mentally able teacher can teach, guide and inspire his students properly to attain the goals of life.

Each generation of pupils grow up in a new context of patterns of interactive with others and in dealing with information technology. The learning experiences set up by teachers now must be tailored to the needs of pupils as they exist now: otherwise school will be experienced as an unreal world with outdated activities and knowledge. Teacher Aptitude is not something a teacher acquires at one moment in his professional development and then maintains in that same form thereafter. Rather it is an ever-changing requirement based on continuing professional development and critical reflection about one's own teaching.
Freeman (1971) also states, “It is extremely difficult to devise tests for the selection of teachers because their preparation is not as clearly defined as in the case of law and medicine, since the contents of professional courses of the same name will differ considerably, and since teaching encompasses such a wide range of subject matter and educational levels. Of equal importance with general mental ability and competence in subject matter to be taught are the personality traits essential in successful teaching. As yet, no definitive psychological studies of those traits are available.”

The concept of Teaching Aptitude was made clearer with the help of studies reviewed.

(B) REVIEW OF PAST STUDIES:

2.5 The Review:

Review of related literature is a significant aspect of any research work to know, what others have learned from similar research situations and to help in the formation of Hypotheses for the study. As Fox (1969) pointed out, it becomes part of the accumulated knowledge in the field and so contributes to thinking and research that follow.

George J. Mouly says, “Man is the only animal that does not have to begin a new in every generation, but can take advantage of the knowledge which has accumulated through centuries. This fact is of particular importance in research which operates as a continuous function of every closer approximation to truth.”

The survey of the literature is a crucial aspect of the planning of the study. The investigator must refer the widespread references related to the
study. For better understanding of the study undertaken, it is also necessary to review past work done, related to the study undertaken.

Best states, “A summary of the writings of recognized research provides evidence that the researcher is familiar with what is already known and what is still unknown and untested.” The review helps to understand the research design of the problem on hand. At the same time it also acquaints the investigator with the limitations of the tools and procedure used by the past researchers as well as problems faced by them in carrying out the researches.

A peep into the past often avoids the risk of duplication of work that has already been accomplished by previous researchers. The review of past related literature provides theories, explanations and hypotheses available in formulating the problem, suggests approaches, methods, tools and techniques appropriate to the result and contribute to the general scholarship of the investigator. An intensive reading of the survey of the past work develops the insight of investigator and strengthens his information which saves his time and energy and gives him the ideas about the difficulties encountered by the past researchers.

Every investigator must know what sources are available in the field of inquiry and where and how any of them are worthy to be used. The investigator needs up-to-date information regarding his study i.e. what has been thought and done in the area.

The present study is an attempt to estimate the extent of relationship of Teaching Aptitude with I.Q., E.Q., Parent’s Occupation, Academic Achievement Score, Recreational Activities and Sex of B.Ed. students of Gujarat state. The general trend shown by these studies can be considered while interpreting the results of the study.
2.6 The Peep into the Past:

Research in the area of Aptitude has many vital and useful findings to report but Teaching Aptitude as a construct has not been investigated conclusively. The flood of research in the field of measuring Teaching Aptitude conducted mainly by sociologists and psychologists are indicative of the scant attention paid by educationists. Realizing the importance of Teaching Aptitude as a vital construct and its inculcation among the students, researchers are now making vigorous attempts in providing important findings to the policy makers to make adequate policies and programmes.

Keeping in the view the objectives and focus of the present study, investigator tried to review the past work done on Teaching Aptitude and tool construction with special reference to the dependent variables of the study.

There are many researches conducted on Teaching Aptitude and its correlation with some aspects (i.e. ses, sex, achievement etc.) The review of the relevant studies is presented in the following paragraphs into two major groups.:

- Studies Conducted on the Construction and Standardization of Different Aptitude Tests.
- Studies Conducted on the Measurement of Teaching Aptitude and its Relationship with some Variables.
2.6.1 Some Studies on Construction and Standardization of Aptitude tests:

Study – 1

Subject: Construction and Standardization of a Teaching Aptitude Test.


Objectives:

- To construct and standardize a Teaching Aptitude Test.
- To study interactional effect of psycho-socio variables on teaching aptitude of trainees.

Sample: The sample was 1190 (650 males and 540 females) trainees of the normal schools of Uttar Pradesh.

Tools: The teaching aptitude test was constructed and standardized by the researcher. The test measures professional knowledge, Vocabulary, inferential, reasoning, number series, numerical reasoning, logical section, general information and reading comprehension.

Finding:

- The trainees having high professional knowledge were found superior to their counterparts on teaching Aptitude.
- The main difference on teaching aptitude scores was in favour of trainees having low Vocabulary, inferential, reasoning. Logical
section, general information and reading comprehension variables did not interact with each other on teaching aptitude.

**Source**: Fifth survey -1794

**Study – 2**

**Subject**: Development of Predictive Battery of Tests for Scientific Aptitude for the Students of Class XI.


**Objectives**:

- To construct and standardize a scientific aptitude test battery.
- To obtain simple factor structure of the predictors involved in the study.

**Sample**: 1,200 students from the schools of Jammu.

**Tools**: The scientific aptitude test battery covering items related to scientific awareness, numerical ability, perceptual ability, mechanical comprehension, reasoning ability etc.

**Finding**:

- There is a sex differences with regard to Scientific Aptitude for the Students of class XI. The female possess higher aptitude.
- There is no area difference with regard to scientific aptitude of the Students of class XI.
- The mean difference on scientific aptitude scores is in favour of trainees with high level of scientific awareness.

**Source**: Fifth survey -1798
Study – 3

Subject: Study of Teaching Aptitude of Secondary School Teachers of Gujarat State in the Context of Some Psycho-socio Variables.

Researcher: Pandya, R. K., Ph. D., Edu., Sardar Patel University, 1993

Objectives:

- To construct and standardize a tool for measuring the teaching aptitude of secondary school teachers of Gujarat state.
- To study of teaching aptitude of secondary school teachers of Gujarat state in the context of some psycho-socio factors namely: Sex, Area, Vocational Aspiration, Leadership, Emotional Stability, Radicalism V/s Constructivism, and SES.
- To study interactional effect of psycho-socio variables on teaching aptitude of teachers.

Sample: The total sample of 504 was of 262 male teachers and 242 female teachers of B.Ed. colleges of the Gujarat state.

Tools: The Teaching Aptitude Test was constructed and standardized by the investigator was used to collect data.

Finding:

- There is a sex differences with regard to teaching aptitude of secondary school teachers. The female possess higher teaching aptitude.
- There is no area difference with regard to teaching aptitude of secondary school teachers.
- The mean difference on teaching aptitude scores is in favour of trainees with high level of vocational aspiration.
- The mean difference on teaching aptitude scores is in favour of trainees having high level of SES.
- The mean difference on teaching aptitude scores is in favour of trainees having high leadership trait.
- The trainees having high emotional stability are found superior to their counterparts on teaching aptitude.
- The trainees having radicalism v/s constructivism trait in their personality are found superior to their counterparts on teaching aptitude.

**Source:** Online Catalogue of Theses, Acc. No. 164025

**Study – 4**

**Subject:** A Study of the Attitude of Student Teachers Towards the Teaching Profession and Globalization with Reference to Certain Variables.


**Objectives:**

- To study the level of attitude of student teachers towards various aspects of teaching profession and globalization.
- To study the factors affecting the level of attitude of student teachers towards various aspects of teaching profession and globalization i.e. sex, socio-economic status, academic performance, area of college and major subject.
To study the relationship between attitude of student teachers towards various aspects of teaching profession and the attitude of student teachers towards various aspects of globalization.

**Hypotheses :**

- The level of attitude of student teachers towards various aspects of teaching profession is in medium level.

- The level of attitude of student teachers towards various aspects of globalization is in medium.

- There is no significant difference between mean score of attitude of student teachers towards various aspects of teaching profession with reference to sex.

- There is no significant difference between mean score of attitude of student teachers towards various aspects of teaching profession with reference to socio-economic status i.e. the level of education of guardians, the level of monthly income of guardians and the occupation of guardian.

- There is no significant difference between mean score of attitude of student teachers towards various aspects of teaching profession with reference to the level of academic performance.

**Sample :** The sample comprised of 1,200 student teachers of Thailand. Simple random sampling was used.

**Tool :** The respondent’s personal information and the scale to measure the attitude of student teachers towards teaching profession and globalization was constructed and standardized by the investigator.
**Reliability & Validity**: The study used survey method. The Alpha reliability coefficients of the scales were 0.92 and 0.91 respectively.

**Data Analysis**: ANOVA, Standard Range Statistics Test, t-test and correlation were calculated for data analysis.

**Findings**:

- The attitude of student teachers towards teaching profession is in medium level.

- Sex of student teachers is the factor affecting the teaching profession on the whole and different components i.e. job satisfaction, achievement of work, recognition, challenging of work, salary, and welfare and working condition, which is in favor of female.

- Sex of student teachers is the factor affecting the globalization and different components i.e. system of teaching and learning, curriculum, knowledge about innovation, perception of innovation, progress of teaching, which is in favor of female.

- Socio-economic (occupation of guardians) of student teachers is not the factor affecting the teaching profession and different components.

- Academic performance of student teachers is the factor affecting the teaching profession and different components i.e. achievement of work, recognition, advancement, challenging of work, salary and welfare and working condition, which is in favor of students having high academic performance.
There is the positively relationship between attitude of student teachers towards teaching profession and attitude of student teachers towards globalization.

**Source:** Online Catalogue of Theses

**Study – 5**

**Subject:** A Study of Teaching Efficiency and Teaching Aptitude in Relation to Experience of Male and Female Arts and Science Teachers of Intermediate Colleges of Jhansi Mandal, Jhansi.


**Objectives:**

- To study the aptitude of the 12 groups of teachers.
- To study the efficiency of the 12 groups of teachers.
- To find the difference in aptitude due to sex, faculty and experience level.
- To find the difference in efficiency due to sex, faculty and experience.
- To study the relationship between teaching aptitude and teaching efficiency.

**Hypotheses:**

- There is no significant difference in the groups according to sex.
- There is no significant difference in the groups according to faculty.
There is no significant difference in the groups in regard to sex or faculty when the groups are divided according to experience.

There is no relation between teaching efficiency and teaching aptitude in the different groups.

**Methods:** Study was Ex – Post – Facto cum Field type research. There were three groups constructed by researcher on the basis of teaching experience.

**Sample:** Sample selected by Random Sampling Method comprised of 480 Teachers of Jhansi Mandal.

**Tools:**

- Teaching Aptitude Test by Jai Prakash & R.P. Srivastava.
- Verma’s Test for Teaching Proficiency by M. Verma.

**Data Analysis:** The data were analyzed by Mean, SD, t-test, Correlation & ANOVA.

**Findings:**

- Female science teachers were better than the others.

- Male teachers of the 3rd efficiency span that is of 21 and above years of service were the best.

- The aptitude scores were average on the whole. In certain areas patience and discipline, they were low. They were better in the areas of cooperative attitude and optimism. In the other areas the mean scores were at the lower limit of high level.

- Correlation except in a few cases the efficiency has a positive significant correlation with aptitude.
There is a definite correlation between teaching efficiency and teaching aptitude.

Source: VI Survey of Research in Education, http://eduresearch.dauniv.ac.in

Study – 6


Objectives:

- To construct and standardize a tool for measuring the teaching aptitude of higher secondary school teachers of Gujarat State.
- To study the teaching aptitude of higher secondary school teachers in the context of certain psycho-socio factors namely: Sex, Area, Vocational Aspiration, Leadership, Emotional Stability, Radicalism v/s Conservatism and SES.
- To study interaction effect of psycho-socio variables on teaching aptitude of teachers.

Hypotheses:

- There is no significant mean difference between the higher secondary school teacher’s aptitude of the introvert and extrovert teachers.
- There is no significant mean difference between the higher secondary school teachers of high and low vocational aspirations.
There is no significant mean difference between the higher secondary school teachers’ aptitude of the teachers staying in rural and urban areas.

There is no significant mean difference between the higher secondary school teacher’s aptitudes of Teachers having high and low SES.

There is no significant mean difference between the higher secondary school teacher’s aptitude of male and female teachers.

There is no significant mean difference between independence variables on Teacher’s aptitude.

**Sample**: For the study 572 P.G. trainees were selected randomly from different B.Ed. Colleges of Gujarat State.

**Tools**:

- Tools used for data collection were Personality inventory by Dr. A.S. Patel,
- A Questionnaire for assessing vocational aspirations of Dr. Mathur (1969),
- Socio Economic Status Scale by Dr. H.N. Tapodhan (1994) and
- Teacher aptitude test constructed by investigator.

**Data Analysis**: Using Mean, S.D., ANOVA, t-test and Correlation performed data analysis.

**Findings**:

- In the present study sex did not interact with the other two variables. The sex variable functioned without being affected by
emotional stability in teaching aptitude. The sex variable functioned without being affect by the trait Radicalism V/s. Conservatism.

- The main effect of vocational aspiration was not significant. The mean difference on teaching aptitude scores was in favour of trainees with low level of vocational aspiration. Vocational aspiration variable did not interact with SES while functioning on teaching aptitude.

- The trainees having low SES were found superior to their counterparts on teaching Aptitude.

- The main difference on teaching aptitude scores was in favour of trainees having low leadership trait. Leadership and vocational aspiration variables did not interact with each other on teaching aptitude.

- The trainees having low emotional stability were found superior to their counterparts on teaching aptitude.

- The trainees having this trait of personality were found superior to their counterparts on teaching aptitude.

**Source**: VI Survey of Research in Education, http://eduresearch.dauniv.ac.in

**Study – 7**

**Subject**: Study of Teaching Aptitude of Student Teachers with Reference to Creativity and Teaching Competency.


**Objectives**:

- To study the teaching aptitude of student teachers.
To study the relationship of creativity and teaching aptitude of student teachers.

To study the relationship of teaching aptitude and teaching competency of student teachers.

**Hypotheses :**

- There is no significant difference between the creativity of male and female student teachers.

- There is no significant difference between the teaching competency of male and female student teachers.

- There is no significant difference between the teaching aptitude of male and female student teachers.

- There is no significant correlation between creativity and teaching aptitude.

- There is no significant correlation between teaching competency and teaching aptitude.

**Method :** The nature of study was survey.

**Sample :** Student teachers of B.Ed. colleges of Ahmadnaggr, Nashik and Pune were included in the sample.

**Tools :**

- Thinking Creativity with Word test by Torrance,

- GTCS by Passi

- Teaching Aptitude test by Shah, M.M.
Data Analysis: Data were analyzed with the help of t-test and correlation.

Findings:

- There is no significant difference between the creativity of male and female student teachers.
- There is no significant difference between the teaching competency of male and female student teachers.
- There is significant difference between the teaching aptitude of male and female student teachers.
- There is no significant correlation between creativity and teaching aptitude.
- There is no significant correlation between Teaching Competency and Teaching Aptitude.

Source: VI Survey of Research in Education, http://eduresearch.dauniv.ac.in

Study – 8

Subject: A Study of Teaching Aptitude in Relation to General Teaching Competency, Professional Teaching and Academic Achievements of B.Ed. Pupil Teachers.


Objectives:

- To study of teaching aptitude in relation to general teaching competency, interest in profession and academic achievements of B.Ed. pupil teachers.
Sample: The sample consists of 262 B.Ed. Pupil Teachers studying in the year 2002-03 in various B.Ed. colleges of M.D. University, Rohtak.

Tools:

- Teaching Aptitude Test (Singh),
- General Teaching Aptitude Scale (Passi),
- Professional Interest Inventory (constructed by the researcher).

Method: Correlation Method of Research was used.

Data Analysis: Data were analyzed by Mean, S.D. correlation, t-test and ANOVA.

Findings:

- There is a positive correlation between teaching aptitude and general teaching competency, interest in profession and academic achievements of B.Ed. pupil teachers.
- There is a positive effect of teaching aptitude on general teaching competency, interest in profession and academic achievements of B.Ed. pupil teachers.

Source: http://jmi.ac.in/studyatjami/jamiaresearch/1

Study – 9

Subject: Relationship of Teacher Aptitude with Academic Achievement and Certain Psychological Variables of Primary Teacher Trainees of Kerala.

Objectives:

- To estimate the extent of relationship of Teacher Aptitude and its four constructs with each of the five predictor variables for the total sample and sub samples.

- To derive the multiple regressions equation of Teacher Aptitude and its four constructs in terms of the predictor variables and to estimate the relative efficiency of the predictor variables in predicting Teacher Aptitude and each of its constructs.

- To test whether there exists significant difference in the nature of relationship of the criterion variables with the predictor variables between relevant subsamples studied.

- To test locale wise and school management wise difference in Teacher Aptitude and its four constructs.

- To test locale wise and school management wise difference in the five predictor variables.

Hypotheses:

- The existence of significant correlations of the criterion variables Teacher Aptitude and its four constructs with each of the five predictor variables for the total sample and for the subsamples studied.

- Efficiency of each of the predictor variables to predict significantly Teacher Aptitude and its four constructs.

- Significant difference exists in the nature of relationship of the criterion variables with the predictor variables between relevant subsamples studied.
There exists significant locale wise and management wise difference in Teacher Aptitude and its four constructs.

There exists significant locale wise and management wise difference in each of the five predictor variables.

**Sample**: Sample Population for the study is senior TTC students studying in the Primary Teacher Training Institutions of Kerala. Stratified random sampling was the technique used for sampling. In drawing the sample, representation was given to locale and type of management of the institutions. Thus, 506 senior student teachers belonging to government, aided and unaided Primary Teacher Training Institutions formed the sample of the study.

**Tools**:

- Test of Teacher Aptitude (Sumangala and Usha, 2001)
- Teaching Interest Inventory (Mumtas and Suja, 2006)
- Scale of Attitude towards Teaching Profession (Mumtas and Hafsath, 2003)
- Scale of Teacher Perception of Teacher Effectiveness (Sumangala and Kurian T., 1994)
- Self Concept Scale for Teachers (Pillai, 1989).

**Data Analysis**:

- Step wise Multiple Regression Analysis (ANOVA approach).
- Pearson's Product Moment Coefficient of Correlation 'r' followed by (a) Test of significance of 'r's. (b) 0.95 Confidence Interval of 'r's. (c) Coefficient of determination, r² x 100.
o Test of significance of the Difference between two Correlation Coefficient for Independent samples.

o Two tailed Test of Significance of Mean Difference for large independent samples.

o One-way Analysis of Variance.

Findings:

o Among the five predictor variables of the study, Attitude towards Teaching Profession is the single variable having significant relationship with Teacher Aptitude and all of its four constructs, viz., Instructional Awareness, Educational Problem Solving, Creativity and Mental Ability.

o Achievement in Teacher Education has significant relation with Teacher Aptitude, but not a predicting variable. Achievement in Teacher Education is related with two constructs of Teacher Aptitude viz., Instructional Awareness and Mental Ability.

Source: Sodhganga, http://www.inflibnet.ac.in/

Study – 10

Subject: The Study of Teacher Competence of Teachers at Schools in the three Southern Provinces of Thailand.


Objectives:

o To clarify the level of Teacher competence of teachers.
To find out the relationships of Teacher competence of teachers with their educational qualification, experience and the size of the school.

**Sample :** Following the random sampling method, 750 teachers of 18 secondary schools of three southern Provinces of Thailand viz. Nratívás, Pattani and Yala, data was collected for the study.

**Tools :**

- Five point Scale was constructed in which second part of the two, includes 33 statements regarding Teacher competence.

**Reliability & Validity :**

The self constructed and standardized tool was used by the researcher and the reliability was 0.96 on Kronback Alfa.

**Data analysis :** The data was analyzed using – Mean, S.D., Frequencies, Percentiles and Pearson’s Product Moment Coefficient of Correlation.

**Findings :**

- The high level of Teacher competence of teachers was found.

- There was a positive correlation of Teacher competence of teachers with their educational qualification, experience and the size of the school.

**Source:** http://www.journal.au.edu/scholar/2009/word/N.A.Achwarin.doc
Study – 11

Subject : A Study of Teaching Competency, Professional Commitment and Emotional Maturity of the Student Teachers of the Secondary Teacher-Education Colleges of Saurashtra Region.


Objectives :

- To construct and standardize a scale to know Teaching Competency of the Student Teachers of the Secondary Teacher-Education Colleges of Saurashtra Region.

- To construct and standardize a scale to know Professional Commitment of the Student Teachers of the Secondary Teacher-Education Colleges of Saurashtra Region.

- To construct and standardize a scale to know Emotional Maturity of the Student Teachers of the Secondary Teacher-Education Colleges of Saurashtra Region.

Sample : 2176 Student Teachers of the Secondary Teacher-Education Colleges of Saurashtra Region were included in the sample.

Tools : A Scale was constructed to measure Teaching Competency, Professional Commitment and Emotional Maturity of the Student Teachers of the Secondary Teacher-Education Colleges of Saurashtra Region.

Data Analysis : Percentage, arithmetic mean, Standard Deviation, F and t-Test were used to treat the collected data.
Findings:

- The is a mean difference in Teaching Competency between Male and Female Student Teachers of the Secondary Teacher-Education Colleges of Saurashtra Region.

- The is a no mean difference in Professional Commitment between Male and Female Student Teachers of the Secondary Teacher-Education Colleges of Saurashtra Region.

- The is a mean difference in Emotional Maturity between Male and Female Student Teachers of the Secondary Teacher-Education Colleges of Saurashtra Region.

Source: Sodhganga, http://www.inflibnet.ac.in/

2.6.1.1 Summary of Related Studies (1 - 11):


Area and Sample:

These studies have been conducted in different places with different sample. Pandey (1970) standardized a teaching aptitude test on the sample of 1190 (650 males and 540 females) trainees of the normal schools of Uttar Pradesh. The Scientific Attitude Test Battery (1991) was
standardized on 1200 student of Std. XI of Jammu, where as Scientific Attitude Scale and Scientific Interest Inventory (1991) had 193 teachers and 820 students of Madhya Pradesh State as sample.


K. Joshi (2003) constructed and standardized the teaching aptitude of higher secondary school teachers of Gujarat State with the sample of 572 P.G. trainees.

With the sample of 750 teachers of 18 secondary schools of three southern Provinces of Thailand N.A. Achwarin (2009) constructed and standardized the teacher competency tool.

As a whole the tools have been constructed in different parts of India and outside India and the sample ranging from 200 to 2200 subjects. The sample has mostly been selected by stratified random sampling and cluster sampling techniques. The sample was selected from the various levels of education i.e. from primary to higher education.

- **Tools and Methods of Standardization**:
  
  Most of the tools are prepared by Likert method – on five point scale or a test of multiple choice questions – the usual method of standardizing. Either survey or co relational methods were followed in almost studies.

- **Data Analysis**:
  
  Most of the tools were standardized with the help of common methods of data analysis - Mean, Percentile, and S.D. Correlation, t-test and ANOVA or Pearson's Product Moment Coefficient of Correlation.
- **Reliability and Validity of the Tools used :**
  
  The reliability and validity of the most tools were around 0.90 to 0.96 on Kronback Alfa scales. As in Patanrasd (1998) the Alpha reliability coefficients of the scales were 0.92 and 0.91 respectively. Whereas in Achwarin (2009) the reliability was 0.96 on Kronback Alfa.

2.3.2 **Some Studies on Teaching Aptitude and its Relationship with some Variables :**

**Study – 12**

**Subject :** An Investigation into the Validity of a Scientific Knowledge and Aptitude Test.


**Objective :**

- To find out the validity of Scientific Knowledge and Aptitude Test.

**Sample :** 476 students of class XI of Eight Bengali medium schools.

**Tool :**

- A Scientific Knowledge and Aptitude Test.

**Findings :**

- The test was quite valid and the test scores were highly related with the academic success for girls’ science group.

- The correlation between the test scores and the total marks obtained by the boys’ science group was significant at 0.5 percent level.
Source: Third survey - 485

Study – 13

Subject: Attitudes Toward Teaching of High Aptitude High School Seniors.


Objectives:

- To ascertain the attitudes toward teaching as a career of high school seniors who scored in the top 15 percent nationally on the American College Test (ACT) and Stanford Achievement Test (SAT) College Admissions Tests.

Sample: 629 students returned usable questionnaires in which they rated the attractiveness of nine factors about teaching.

Tools: A scale of different factors to be rated was given to the subject.

Reliability & Validity: The study used survey method. The Alpha reliability coefficients of the scales were 0.94 and 0.92 respectively.

Findings:

- The factor "contribution to society and humanity" was rated highest and "salary" the lowest.

- Two other factors were in the middle range: "fringe benefits" and "job security."
If more high aptitude students are to be attracted to teaching, the profession will have to improve salaries, opportunity for advancement, social status, availability of jobs, and working conditions, as these were the least attractive features about teaching reported in this study.

Source: ERIC - ED268092

Study – 14

Subject: A Critical Study of Scientific Attitude and Aptitude of the Students and Determination of Some Determinants of Scientific Attitude.


Objectives:

- To find out the extent of academic motivation of the students, sex and strata-wise differences in scientific attitude and aptitude.
- To find out the relation between scientific attitudes, the above stated independent variables and a regression equation of the scientific aptitude on other independent variables.

Sample: The sample of the study comprised 613 students drawn from 13 schools belonging to different localities: rural-urban, boys schools, girls schools, co-educational schools.

Tools:

- Scientific Attitude Test
- Scientific Aptitude Test
- Academic Motivation Test by Bhattacharya
○ Socio-Economic Status Scale of Kuppuswami

○ Structured Interview Schedules

**Data Analysis** : Correlation, ANOVA and regression analysis were employed to treat the collected data.

**Findings** :

○ It was found that scientific aptitude was significantly related to scientific attitude and academic motivation.

○ No significant difference was observed with respect to sex, socio-economic condition or place of habitation.

**Source** : Fifth survey – 1243

**Study – 15**

**Subject** : A Comparative Study of Scientific Attitude, Scientific Aptitude and Achievement in Biology at Secondary Level.


**Objectives** :

○ To find out the scientific attitude and scientific aptitude possessed by the secondary school pupils along with their achievement in biology.

○ To find out the association among scientific attitude, scientific aptitude and achievement in biology of secondary school pupils.

○ To compare scientific attitude, scientific aptitude and achievement of boys versus girls, English medium versus Telugu medium schools, private versus government schools, residential versus non-residential schools and rural versus urban schools.
Sample: The sample of the study comprised 600 students studying in class IX, who were selected through stratified sampling method.

Tools:
- Scientific Attitude Scale of J. K. Sood and R. P. Sandhya
- Kerala University Science Aptitude Test of Nair, et al.

Data Analysis: Correlation, mean, standard deviation, t-test and critical ratio were employed to treat the collected data.

Findings:
- It was observed that the scientific attitude in secondary school pupils was average. There was no influence of sex on scientific attitude. But the pupils studying in private schools, rural schools, English medium schools and residential schools held relatively better scientific attitudes than their counterparts.
- The scientific aptitude in secondary school pupils was also average. The pupils of private schools, urban schools, English medium schools and residential schools held a bit more scientific aptitude.
- There was a highly significant and positive association among scientific attitude, scientific aptitude and achievement in biology.

Source: fifth survey - 1258

Study – 16

Subject: Study of the Predictors of Academic Achievement of Student Teachers in terms of Aptitude, Attitude, Participation and Human Values.

Objectives :

- To determine the relationships between Academic Achievement and aptitude of the student Teachers
- To examine the relationship between Academic Achievement and participation of the student Teachers
- To determine the relationship between Academic Achievement and co-operation of the student Teachers
- To examine the relationship between Academic Achievement and dedication of the student Teachers
- To compare the Academic Achievement of Male and Female student Teachers.
- To study the factors affecting Academic Achievement of the student Teachers.

Sample: A sample of 400 student Teachers was selected randomly from the college of education under the jurisdiction of M. D. University, Rohtak.

Method: The Normative Survey Method was used for study.

Tools:

- Personal Information Blank - developed by the investigator,
- Teaching Aptitude Test (TAT) developed by Jai Prakash and R. P. Shrivastav,
- Teaches Attitude Inventory (TAI) developed by S. P. Ahluwalia,
- Human Values Test (HVT) constructed by the investigator.
Findings:

- Highly significant positive relationship has been found between aptitude and Academic Achievement of student Teachers and total as well as in theory and practical.

- Student Teachers have been found significantly higher in comparison to Male student teacher in all the eleven variables viz. Academic Achievement in total, theory and practical, aptitude, Attitude, co-operation, dedication, nationalism, scientific outlook, tolerance and entry Level.

- Academic Achievement of student Teachers has been predicted successfully on the basis of their Attitude, entry Level, aptitude and cooperation.

Source: VI Survey of Research in Education, http://eduresearch.dauniv.ac.in

Study – 17

Subject: Study of Some Personality Traits of Teacher Trained in Relation to Teaching Effectiveness and Achievement.


Objectives:

- To find out the personality characteristics of male and female students undergoing teacher’s training.

- To find out the nature of relationship of teaching effectiveness with the personality factors in consideration.

- To find out the nature of relationship of achievement with the 16-PF.
To find out those personality factors which positively affect teaching effectiveness as well as achievement.

To make a comparison of personality factors between male and female effective and ineffective student teachers.

**Hypotheses**:

- There are few outstanding personality characteristics of male and female students undergoing teacher’s training.
- Some specific personality characteristics of 16-PF are related to teaching effectiveness.
- Achievement is related to some personality factors out of sixteen factors.
- Some personality factors are positively related to both teaching effectiveness and achievement.
- There are significant differences in personality factors between male and female effective and ineffective student teachers.

**Methods**: The descriptive survey method was used by researcher.

**Sample**: The sample comprised randomly selected 600 students of four colleges of Aligarh and Mathura.

**Tools**:

- Cattell 16 PF Hindi version by Kapoor,
- Deva’s Student Teacher Rating Scale, and
- Examination marks were used for data collection.

**Data Analysis**: The data were analyzed by mean, SD, CR, correlation.
Findings :

- In the male teacher trainees of arts, the factors I, M and Q3 were related positively with teaching effectiveness, achievement in theory and practice.

- In case of all the groups teaching effectiveness had positive relationship with achievement in theory and practice.

- More or less the effective teacher trainees of all the groups had a few common personality characteristics, that is, they were good natured, easy going, cooperative, soft hearted, adaptable, fast learner, intelligent, cooperative, adaptable, emotionally natured, stable, assertive, self-assured, independent minded, cheerful, active, responsible, playful, sociable, bold, spontaneous, tender minded, artistic, free of jealously, tendencies, creative, polished, experienced, placid, interested in intellectual matters, having strong coped on their emotions, released and realistic about their life.

- More or less the ineffective teacher trainees of all the groups had a few common personality characteristics such as stiff, cool, aloof, slow learner, dull, frustrated, dependency, introspective, unsteadily in purpose, usually have inferiority feelings, mistrusting, doubtful, unsophisticated, sentimental, simple, depressed, brooding, foreboding, more conservative in religion and politics, depends on social approval and admiration, maladjusted, tense, excitable and impatient.

Source: VI Survey of Research in Education,  http://eduresearch.dauniv.ac.in
Study – 18

Subject: The Effect of Brainstorming Technique on the Creativity and Ability to Integrate Teaching Skills of B.Ed. Students.


Objectives:

- To study the effect of Brainstorming technique on the ability to integrate teaching skills.
- To study the association of between the creativity and the ability to integrate teaching skills.
- To study the role of some intervening variables, namely, Institutional climate, Socio-economic status, Academic achievement and self-evaluation in the association between creativity and ability to integrate teaching skills.

Hypotheses:

- There will not be any significant effect of Brainstorming technique on the ability to integrate teaching skills.
- There will not be any significant association between creativity and ability to integrate teaching skills.
- There will not be any significant effect of institutional climate on the association between creativity and ability to integrate skills.
- There will not be any significant effect of socio-economic status on the association between creativity and ability to integrate teaching skills.
There will not be any significant effect of academic achievement on association between creativity and ability to integrate teaching skills.

Sample: The sample comprised of 90 Pupil – Teachers from 4 Different Institutes associated with University of Lucknow.

Methods: Study was Experimental in nature. Pretest – Posttest Single Group Design was used. Treatment was given by Programme encompassing two sessions of 45 Minutes of each.

Tools:
- Verbal Test of Creative Thinking by Baquer Mehdi (1973),
- Indore Teaching Assessment Scale by Passi, Deshmukh and Sharma (1960),
- Socio – Economic Status Scale by Kuppuswami, (1962)
- Percentage Marks of High School, Intermediate and Graduation as Academic Achievement were taken from the school record, and
- Institutional Climate Scale developed by Researcher.

Data Analysis: The data were analyzed by t – test, Pearson Product Moment Coefficient of Correlation and First Order Partial Correlations.

Findings:
- Brainstorming has a significant effect on the level of creativity.
- Brainstorming technique has a significant effect on the ability to integrate teaching skills.
There is a positive and significant association between creativity and ability to integrate teaching skills.

There is significant effect of institutional climate on the association between creativity and ability to integrate teaching skills.

The socio–economic status does not affect significantly the association between creativity and ability to integrate teaching skills.

There is no significant effect of academic achievement on the association between creativity and ability to integrate teaching skills.

There is no significant effect of self-evaluation on the association between creativity and ability to integrate teaching skills.

Source: VI Survey of Research in Education, http://eduresearch.dauniv.ac.in

Study – 19

Subject: A Study of Personality Profile of Male and Female Teachers of Bundelkhand Region.


Objectives:

- To know the personality traits of general B.Ed. male & female trainees.
- To establish difference in personality profile of male & female teacher trainees.
- To study the effect of age difference on personality profile.
To study the effect of teaching experience on personality profile.

To study the effect of socio-economic difference on personality build up.

**Hypotheses:**

- There is no significant difference in personality profile of male & female teacher trainees.
- There is no significant effect of age difference on personality profile.
- There is no significant difference in personality profile of teacher trainees of various experiences.
- There is no significant difference in personality of teacher trainees of various socio-economic status.

**Sample:** Present study was conducted on a purposive sample of 500 male & female teacher trainees of Bundelkhand region.

**Tools:** 16PF Questionnaire was used for measuring personality of teacher trainees. For measuring Socio-Economic status, Shrivastav’s SES scale was used.

**Data Analysis:** Data were analyzed by t-test.

**Findings:**

- No significant difference in personality profile of male & female teacher trainees was found.
- No significant difference in personality profile of male and female teacher trainees of various experiences was found.
o No significant difference in personality profile of male & female of various ages was found.

o No significant difference in personality profile of teacher trainees of various Socio – Economic status was found.

Source: VI Survey of Research in Education, http://eduresearch.dauniv.ac.in

Study – 20

Subject : A study of Human Relationship of Teachers in Secondary Schools.


Objectives :

o To know the patterns of Human Relationship of Teachers with their Principal, co-Teachers, Students, Administrative Staff and Trustees of the secondary school.

o To study the Human Relationship of secondary school Teachers with their Principal, co-Teachers, Students, Administrative Staff and Trustees with reference to the Management (government and private school), student’s Sex (boys’, girls’ and co-education school), Place (city and village school) and District Place of the school teacher.

Method : The Survey Method was used for the research.

Sample : The population of the study was 1282 Secondary Schools of six districts namely: Amreli, Bhavnagar, Jamnagar, Junagadh, Rajkot and Surendranagar of Saurashtra region. In which 600 Teachers
and 200 schools were selected using Stratified Random Cluster Sampling Technique.

**Tools** : The researcher had constructed a five-point rating scale by using Thurston and Cave Method for measuring the Human Relationship.

**Findings** :

- Female Teachers had better Human Relationship with their Principal and Trustees as compared to male Teachers.
- The difference in the pattern of Human Relationship of school Teachers was found with their Principal, Administrative Staff and especially with Trustees.
- The schools with different Management, Student’s Sex, District Place and Type of the School Place had different Human Relationship of Teachers.
- The level of Human Relationship in the secondary schools of Amreli, Bhavnagar and Surendranagar was found lower as compare to Jamnagar, Junagadh and Rajkot district.

**Source** : VI Survey of Research in Education,  http://eduresearch.dauniv.ac.in

**Study – 21**

**Subject** : An Inquiry into the Professional Attitude of the Teachers in the context of Teachers Effectiveness and Responsibility and its Impact on the Achievement of the Pupils.

Objectives:

- To adapt tools to measure the teacher effectiveness, the teacher responsibility, and the teacher attitude and to find out their reliability coefficients.
- To study the impact of area, sex, experience, effectiveness and their various interactions on teachers’ professional attitude.
- To study the impact of responsibility, caste, grade and their interactions on teachers’ professional attitude.
- To study the impact of teachers’ attitude, area, experience, sex and their interactions on teachers’ high responsibility (R+), low responsibility (R-) and composite score of responsibility (R).
- To study the impact of sex, teachers’ attitude, effectiveness, responsibility and their interactions on the scores of pupils achievement.

Sample: The sample consisted of 710 teachers teaching in grades V, VI and VII, drawn from two districts, Mehsana and Banaskantha of Gujarat State. Among them 365 were males and 345 females.

Tools: The standardized tools were adapted in Gujarati with the necessary changes. The reliability of the Gujarati forms was established by test-retest method with the interval of 45 days on a sample of 60 primary teachers. Thus,

- the adapted teacher Effectiveness Scale (Mutha & Kumar).
- Teacher Attitude Scale (Ahluwalia) and
- Responsibility for student Achievement Questionnaire (Guskey) was used.
Reliability & Validity: The reliability coefficients were found to be 0.83, 0.79 and 0.68 respectively. The average percentages of marks obtained in annual exams were taken as the achievement.

Data Analysis: The data were analyzed through fixed effect Model ANOVA and Newmankeul’s sequential Range Test. Components of Variance were also computed.

Findings:

- Effectiveness with the contribution of 51.17% was the most predominant factor affecting teachers’ attitude. The high effective teachers expressed the higher attitude.

- Sex and experience did not influence significantly professional attitude of the teachers.

- Responsibility was a significant factor on teachers’ professional attitude.

- Effectiveness was the most prominent predicator for R+, R- and R scores. Caste or the grades in which the teachers taught did not affect their responsibility scores significantly. Effectiveness and caste interacted significantly in the production of R+ and R scores.

- The main effects of effectiveness, responsibility and attitude of the teachers were significant on achievement of the pupils, whereas sex was insignificant. The interactions of effectiveness x responsibility of the teachers and effectiveness x attitude x responsibility x sex of the teachers were significant on the achievement of the pupils of grades V, VI, VII.

Source: VI Survey of Research in Education, http://eduresearch.dauniv.ac.in
Study – 22

Subject : Development of Teacher Attitude Scale for Measuring Attitude Towards Teaching Profession and its Application at B.Ed. Level.


Objectives :

- To develop a tool for assessing the attitude of student teachers towards teaching profession.

- To develop the appropriate tools for measuring the learning products of the student teachers after completion of various training activities during B.Ed. course.

- To evaluate the attitude scale as a selection tool for selecting student teachers for B.Ed. course.

- To assess the attitudinal change in the student teachers of the selected colleges towards teaching profession by measuring at beginning and at the end of B.Ed. training program.

Method : The study was ex-post facto research.

Sample : Criterion group approach was used. Sample comprised of 180 student teachers of College of Education, Jalgaon.

Tools : Investigator selected the Likert Technique for constructing the scale. In final draft, 30 statements were taken.

Reliability & Validity : The split-half reliability coefficient of the scale was 0.93. Test-retest reliability coefficient was found to be 0.63. The concurrent validity was 0.504.
Data Analysis: t-test was used for data analysis.

Findings:

- The significant difference was found in the attitude scores of the student teachers of College of Education, Jalgaon.

- The significance difference was not found between the means scores of attitude towards teaching profession of male and female groups.

- The significant difference was found in the performance pertaining to practice teaching, that is, school lesson activity of the B.Ed. course of the student teachers belonging to high and low attitude groups.

- The areas of socially useful productive work are the areas of the work situation in the field of production (i.e. candle making, chalk-making, ink-making etc.). The significant difference was not found.

- There is more percentage of participation of the high attitude group students in the activity of co-curricular and extra-curricular activities of the B.Ed. course than the students of low attitude group.

Source: VI Survey of Research in Education, http://eduresearch.dauniv.ac.in

Study – 23


Objectives:

- To compare Personal, Social and Professional characteristics of National Awardee Teachers (NAT) of Primary and Secondary levels.
- To identify Personality characteristics of NAT of both the groups.
- To critically examine the weightage given to Personal, Social and Professional characteristics of teachers for the purpose of selection for National Award.
- To suggest improvement in the criteria of selection of teachers for National Award.

Sample: For this study Purposive Sampling Technique was used. The sample consisted of 39 Awardees, 36 Non-Awardees, 10 Head Masters/Principals and 30 Educationists and Administrators.

Tools: Tools used to collect data included Questionnaire, two Interview Schedules, Opinionnaire and California Psychological Inventory (CPI).

Data Analysis: Percentage, arithmetic mean, Standard Deviation, Chi-square and t-Test were used to treat the collected data.

Findings:

- Primary and Secondary National Awardees Teachers differed from non-Awardees in Income of the family in childhood.
- Primary Awardees had individual problems more than non-Awardees and had large circle of friends but read less number of books than text during Primary Education.
Primary Awardees favoured Service and Professional Satisfaction as a reason for selecting teaching Professional.

Primary Awardees differed significantly from non-Awardees on capacity for status and Intellectual efficiency. Secondary Awardees differed from non-Awardees only in capacity for status. In both the cases the results were in favour of non-Awardees.

**Source:** VI Survey of Research in Education, http://eduresearch.dauniv.ac.in

**Study – 24**

**Subject:** A Follow-up Study of B.Ed. Graduates of Rural College of Education, Kaithal.


**Objectives:**

- To study the educational status of B.Ed. graduates at the time of entry into B.Ed. college.
- To study the leisure time activities of the B.Ed. graduates.
- To study the outstanding achievements of B.Ed. graduates in academic field, sports and cultural activities.
- To study their perception of the benefits of doing B.Ed.
- To find out the incidence, nature and reasons of job-mobility among B.Ed. graduates.

**Hypotheses:**

- The B.Ed. graduates had mostly B.A. /B.Sc. degrees at the time of entry into the B.Ed. course.
Most of them upgraded their qualifications during service.

The teachers had no outstanding achievements in academic, sports and cultural fields.

They had a high positive perception of the benefits of B.Ed. course.

**Sample** : The sample constituted of 128 B.Ed. graduates of Rural College of Education, Kaithal working in Government and Private schools.

**Tools** :

- Information Questionnaire prepared by the researcher was used for getting information from B.Ed. graduates. It contained questions on adjustment, job mobility and standard of living.

- Socio-Economic Status Scale (SEES) standardized by Rajib Lochan Bhardwaj and others for the assessment of Socio-Economic Status of B.Ed. graduates was used.

- Mangal’s Teacher Adjustment Inventory (MTAI) (short form) was used to out the adjustment of teachers in the teaching profession.

**Findings** :

- At the time of admission to B.Ed. course rural B.Ed. graduates had only basic qualifications whereas urban B.Ed. graduates had higher qualifications also.

- M.Ed./ M.Phil. / Ph.D. qualifications were acquired by only female teachers while no male teacher was found interested in these qualifications.

- Most of the parents of rural male teachers were uneducated while parents of urban male teachers were educated to a large extent.
Larger number of parents of urban teachers was in teaching jobs than that of the rural teachers.

B.Ed. course was found very helpful to teachers in government service and least helpful to teachers in private service, especially to rural female teachers.

The job mobility of teachers was confined to narrow movements. They only wanted to join government jobs in the teaching profession.

Source: VI Survey of Research in Education, http://eduresearch.dauniv.ac.in

Study – 25

Subjects: An Investigation into Student Teachers Non – Verbal Behaviour During the Use of the Technique of Verbalization and its Relationship with Mental State and Teaching Performance.


Objectives:

To find out the relationship between the Verbal Mistakes committed by student teachers during Technique of Overt Verbalization (TOV) and their Teaching Performance.

To predict the student teachers mental state during TOV this may be related to several Non - Verbal Behaviour.

To find out the relationship between Verbal Mistakes committed by student teachers during TOV and the Mental state in accordance with the lesson plan.
Methods: The study was completed in three main stages, namely, Preparatory Stage, Main Study and Confirmatory Study.

Data Analysis: The Spearman Rank formula and Chi – Square Technique were used to analyze the data.

Findings:

- There is a significant relationship between the total Verbal Mistakes committed by student teachers during TOV and their Teaching Performance.
- There is a significant relationship between the Non-Verbal behaviour that occur during TOV & Mental stages, namely, confusions, anxiety, fear & special category.
- There is a significant relationship between the Verbal Mistakes committed by student teachers during TOV & Mental stages, namely, anxiety, confusion, fear and special category.

Source: VI Survey of Research in Education, http://eduresearch.dauniv.ac.in

Study – 26

Subject: Attitude Towards Teaching Profession And Job Satisfaction Of Women Teachers In Coimbatore.


Objectives:

- To find out the attitude of women teachers towards teaching profession.
- To find out the level of job satisfaction of women teachers.
To find out the relationship of attitudes of women towards teaching profession with some independent variables, like, types of schools, types of managements, nature of schools, age, qualification, pay, family income, teaching experience, marital status etc.

**Hypotheses:**

- There is no association between the attitude of women teachers towards teaching profession and their age.
- There is no association between the attitude of women teachers towards teaching profession and the years of teaching experience.
- There is no association between the attitude of women teachers towards teaching profession and the types of schools.
- There is no significant relationship between job satisfaction and years of experience.
- There is no significant relationship between attitude towards teaching profession and extroversion – introversion.

**Method** : The investigator adopted the survey method that was found suitable to gather the essential and relevant data.

**Sample** : 725 Women teachers from government aided and corporation/panchayat, private unaided schools were selected as a sample.

**Tools** :

- Attitude towards teaching profession scale constructed and standardized by V.V Katti and C. S Bannur.
- Job satisfaction scale developed by the investigator: Extroversion–Introversion inventory.
Data Analysis: The data were analyzed with the help of correlation technique.

Findings:

- The women teachers have a positive attitude towards teaching profession.
- There is significant relationship between the attitude of women teachers and the type of schools in which they are working.
- Women teachers with different years of experience have equal job satisfaction.
- Teachers handling 5th, 8th, and 10th classes had a high level of job satisfaction than the teachers handling other classes.
- Total monthly income of the family affects the job satisfaction of women teachers.

Source: VI Survey of Research in Education, http://eduresearch.dauniv.ac.in

Study – 27

Subject: A study of the Attitudinal Changes among the Pre-service Teacher Trainees towards the Teaching Profession.


Objectives:

- To study the attitudinal changes among the pre-service teacher trainees at B. Ed. course level as (a) on the meaning of education, (b) on teaching as a profession, (c) classroom management, (d) on
teaching learning process, (e) on evaluation practices of the pupils learning outcomes, and (f) on the quality of the teacher.

- To study the attitudinal change in relation to such dependent variables as management, age, sex, academic background, subject specialization, residential status and presence of teacher member in the family.

**Hypotheses:**

- There will be significant favourable change in the attitude of the pre-service teachers towards teaching profession as a result of the pre-service training.

- Institutional management will not have significant impact on the attitudinal changes towards teaching profession among the pre-service teachers.

- The changes in attitude towards teaching profession are not influenced by their academic background, subject specialization and residential status.

**Method:** The study was survey type research.

**Sample:** 400 students of 8 colleges of twin cities and districts under the Osmania University jurisdiction were selected as sample of study.

**Tools:**

- A self-prepared questionnaire was used for data collection.

**Data Analysis:** SD and Critical Ratio values were computed for data analysis.
Findings:

- There was a significant favourable attitudinal change among the pre-service teacher trainees towards the teaching profession as a result of the re-service teacher training.

- Although both the male and female pre-service trainees had favourable attitude, women teacher trainees showed more favourable attitude than the male counterparts.

- Changes in the attitudes towards teaching profession were not influenced by their academic background.

- Teachers with two or more years of experience developed more favourable attitude than the others.

- Students from urban background showed more favourable attitude.

Source: VI Survey of Research in Education, http://eduresearch.dauniv.ac.in

Study – 28

Subject: Creativity, Teaching Skills and Personality among Student Teachers of Colleges of Education affiliated to Andhra University.


Objectives:

- To find out relationship between creativity and teaching skills of student teachers.

- To find out relationship between Personality and teaching skills of student teachers.
To find out relationship between different dimensions of teaching skills among students teachers.

To find out significant difference between male and female student teachers in respect of their dimensions of creativity, teaching skills and personality.

To find out the influence of Educational Qualification of student teachers in respect of their teaching skills.

Hypotheses:

- There is no significant relationship between creativity and teaching skills of student teachers.
- There is no significant relationship between personality and teaching skills of student teachers.
- There is no significant difference between male and female student teachers in respect of their teaching skills.
- There is no significant difference between graduate and postgraduate student teachers in respect of their teaching skills.

Sample: Sample consisted of 493 student teachers belonging to different colleges of Andhra University.

Tools:

- Sarma’s Creative Dimensions Assessment Battery,
- Teaching Skills Scale developed by investigator, and
- Personality Questionnaire by S. Rajeswari.

Data Analysis: Data were analyzed by using statistical techniques.
Findings:

- Creativity of student teachers had no relationship with the frequency and intensity of teaching skills.

- The frequency and intensity of teaching skills were related to personality of student teachers. Student teachers who were more frequent in using teaching skills were possessing social ergogenic index, plasticity and social plasticity. Similarly, student teachers who were strong in using teaching skills were possessing social ergogenic index and plasticity.

Source: VI Survey of Research in Education, http://eduresearch.dauniv.ac.in

Study – 29

Subject: A Comparative Study of the Effect of Training on Teaching Attitude and Self-concept of Various Types of Trainees Under DIET Program.


Objectives:

- To study the impact of training on the behavior of various types of trainees of DIET programs.

- To study the impact of training on personality traits of various types of trainees of DIET programs.

- To evaluate improvement in the pre-exposed and post-exposed teachers.
Hypotheses:

- Training under DIET program does not change the behavior of trainees.

- Personality of trainees is not affected by training under DIET program.

- Training under DIET program does not change the attitude of trainees towards teaching, profession, classroom teaching, child-centered practices, teachers’ attitude toward educational environment separately.

Method: The present study was ex-post-facto type descriptive method.

Sample: Sample comprised 150 pre-service, in-service and NFE trainees of DIET of Gwalior region.

Tools: Tools used for data collection were Teaching Attitude Inventory (TAI) by S.P. Ahuwalia.

Data Analysis: Data analysis was based on mean, SD and t-test.

Findings:

- In case of pre-service trainees, the training did not make any significant change in the views of trainees towards their body, health, physical appearance and strength whereas in case of in-service and NFE instructors the training did not change significantly.

- All the three groups of trainees did make significant change in the intellectual level of trainees.
The training under DIET program significantly changed the attitude of all the three groups of trainees towards educational process and pupil.

The training under DIET program did make significant change in the self-concept and attitude towards teaching of trainee-teachers.

Source: VI Survey of Research in Education, http://eduresearch.dauniv.ac.in

Study – 30

Subject: A study of Entrance Test Performance of B.Ed. Trainees as related to Psychological and Socio Demographic Variables.


Objectives:

- To find out the effect of intelligence, creativity and self-concept on the entrance test performance of B.Ed. trainees.
- To find out the interactional effect of intelligence, creativity and self-concept on the entrance test performance of B.Ed. trainees.
- To find out the effect of socio-economic status, sex differences and domicile on the entrance test performance of B.Ed. trainees.
- To find out the interactional effect of socio-economic status, sex and domicile on the entrance test performance of B.Ed. trainees.

Hypotheses:

- The B.Ed. trainees with higher level of intelligence will show better performance in entrance test than the B.Ed. trainees with lower level of intelligence.
The interaction of intelligence, creativity and self-concept will yield significant effect on the performance of B.Ed. trainees in entrance test.

The interaction of socio-economic status, sex and domicile will yield significant effect on the performance of B.Ed. trainees in entrance test.

Method: A Survey Method was used in this study.

Sample: The sample comprised of 651 B.Ed. Trainees taken randomly from Five Colleges of Education affiliated to Kurukshetra University, Kurukshetra.

Tools:

- Group Test of General Mental Ability by Tandon,
- Verbal Test of Creative Thinking by Mehdi,
- Self-Concept Questionnaire by Saraswat,
- Socio-economic Status Scale by Kulshreshta, and
- Entrance Test Performance taken from Gazette Notification of Kurukshetra University.

Data Analysis: The data were analyzed using Mean, S.D. and t-test.

Findings:

- There is significant difference in the entrance test performance of high intelligence group and low intelligence group.
- The creativity is found to be significantly affecting the entrance test performance of high creative and low creative groups.
Study – 31

Subject: A Comparative Study of Male and Female Secondary School Teachers with respect to their Personality Traits, Competency and Teaching Effectiveness.


Objectives:

- To measure the competency of male and female teachers.
- To assess the personality components like, depression, temperament and adjustment of male and female teachers.
- To study the teacher effectiveness of male and female teachers.
- To study the relationship between personality components.
- To study the relationship between teacher competency and teaching effectiveness of male and female teachers.

Method: The descriptive research method was used.

Sample: The sample comprised randomly selected 1000 Higher secondary school teachers and 1000 students from Bijapur district (Karnataka State).

Tool:

- Data was collected with the help of tests, and inventories.

Data Analysis: The data were analyzed using SD, percentile, and correlation.
Findings :

- There were more severely depressed female teachers than male teachers.
- Majority of the female teachers were moderately tempered whereas male teachers were low tempered.
- Both male and female teachers showed average adjustment.
- Male teachers were found to have good competency whereas female teachers had average competency.
- Male teachers were effective whereas female teachers were average in teaching.

Source: VI Survey of Research in Education, http://eduresearch.dauniv.ac.in

Study – 32

Subject: A study of the Adjustment of Secondary School Teachers in relation to their Teaching Competency, Emotional Maturity and Mental Health.


Objectives:

- To study the relationship between adjustment and teaching competency of secondary school teachers in Bangalore Urban district.
- To study the gender relationship in adjustment and teaching competency of secondary school teachers in Bangalore Urban district.
To study the differences in gender, type of management, mental status, age and experience of secondary teachers working in Bangalore Urban district.

**Sample** : Sample consisted of 1000 secondary school teachers of randomly selected 100 schools of government, private aided and private unaided managements of Bangalore urban district.

**Tools** :

- Tools used were Teacher Adjustment inventory by S.K. Mangal
- Teaching Competency Scale by B. G. Sudha and Satyanarayana
- Emotional Maturity Scale by Ushvir Singh and Mahesh Bhargav
- Mental Health by Jagadeesh and A. S. Shrivastava.

**Data Analysis** : Descriptive statistics, such as, percentages, standard deviation and coefficient of variation, correlation and t-test were used for data analysis.

**Findings** :

- There was a high, positive and significant correlation between teachers’ adjustment and teaching competency of secondary school teachers in Bangalore Urban district.
- There was a high, positive and significant correlation between gender, adjustment, teaching competency, emotional maturity, mental health among teachers in secondary schools in Bangalore Urban district.
- There was a high, positive and significant correlation between teaching competency and adjustment of teachers working in
government and private secondary schools in Bangalore Urban district.

- There was a significant difference in teaching competency of secondary school male and female teachers in Bangalore Urban district.

**Source**: VI Survey of Research in Education, [http://eduresearch.dauniv.ac.in](http://eduresearch.dauniv.ac.in)

**Study – 33**

**Subject**: Primary Education Trainees’ Perceptions of Teaching.


**Objectives**:

- To know the primary education trainees’ perceptions of good teaching in the context of their gender and area (urban or rural).

- To know primary education trainees’ opinion about self-evaluation in their future teaching task in context of their gender and area.

- To compare the concept of good education of primary teachers and trainees’.

- To make necessary suggestions for the improvement of primary education training programme.

**Method**: The survey method was employed for the study.

**Sample**: The sample comprised of 462 trainees selected by Stratified Random Cluster Technique from 11 primary education training colleges of Gujarat and 157 primary school teachers.
Tools: The data were collected with the help of two questionnaires in Gujarati based on the questionnaire by Vinestine (1989).

Data Analysis: The reliability of the questionnaires was established. The quantitative data were analyzed with the help of Mean, SD, Percentage, Chi-square, CR and correlation. The qualitative data were by classification and content analysis.

Findings:

- Male trainees and rural trainees were more optimistic about their future teaching task than female and urban trainees respectively.

- Trainees were more optimistic about social relation than about their classroom management.

- The trainees gave importance to accountability, care - tacking, self-evaluation and knowledge of methodology as the attribute of a concept of good teacher rather than to flexibility, providing challenges, fulfillment of requirements and sparing time.

- Among the attributes for which there were significant differences in the opinions of primary teachers and trainees, dynamism, preparation, flexibility, discipline were favored by primary teachers, whereas interaction, relation with students, sense of humor were considered more important by the trainees. In the case of other characteristics, the responses of primary teachers and trainees did not differ significantly.

Source: VI Survey of Research in Education, http://eduresearch.dauniv.ac.in
Study – 34

Subject : A Study of the Accountability of Secondary School Teachers in Relation to their Job – Satisfaction and Morale.


Objectives :

- To develop a scale to determine the accountability of secondary school teachers.
- To study teachers’ accountability in secondary schools in the dimensions: Towards teaching Profession, towards school, towards pupils, towards classroom activities, towards co – curricular activities, towards society and towards national policies and programmes.
- To investigate the job satisfaction of various groups of secondary school teachers.
- To analyse the morale of various groups of secondary school teachers.

Hypotheses :

- There is no significant difference in the theoretical and computed means of total sample of secondary teachers on teacher accountability scale, teacher job – satisfaction scale and teacher morale inventory.
- There is no significant effect of the following groups on teacher accountability scale (a) Type of school, (b) Management of school,
(c) Geographical location of school, (d) Sex, (e) Teaching Experience, and (f) Caste.

- There is no significant effect of the above groups on teacher morale inventory.

**Method:** The research was Descriptive in nature.

**Sample:** The sample comprised of 720 Secondary School Teachers from 114 Secondary School of Jaipur, Alwar, Bharatpur, Dausa, Dholpur and Sikar. The sample was selected with the help of Random Sampling Technique.

**Tools:**
- Teachers Job – Satisfaction Scale (TJSS) by Dr. S.P. Gupta
- J.P. Srivastava, Teacher Morale Inventory (TMI) by Dr. Saroj Pandey,
- Teacher Accountability Scale.

**Reliability & Validity:** Spilt-half reliability coefficient - 0.85 was found out.

**Data Analysis:** The data were analyzed with the help of t - Test, ANOVA and Correlation.

**Findings:**
- The teachers of boy’s secondary schools were found to be significantly more accountability than the teachers of girl’s school.
- The male teachers have more accountability than the female secondary teachers.
The teachers of boys & girls, government & non – government, rural & urban, male & female, teaching experience and groups of caste did not differ significant separately in respect of their job – satisfaction.

Source: VI Survey of Research in Education, http://eduresearch.dauniv.ac.in

Study – 35

Subject : An Inquiry into the School Teachers’ Perception of the Practice of Teaching and Learning.


Objectives :

- To study the perceptions of teachers’ act of teaching.
- To study the perception of teachers’ act of learning.
- To study classroom situation which teachers perceives.
- To arrive at some qualitative and quantitative conclusions regarding their perceptions and practice in relation to some variables like: area, sex, qualification, experience and discipline of the study.

Hypotheses :

- There is no significant difference between the mean score of teachers of urban group and of town group.
- There is no significant difference between the mean score of teachers of male group and female group.
There is no significant difference between the mean score of teachers of graduate group and post-graduate group.

There is no significant difference between the mean score of teachers of 0-5 years experience group and of 16+ years experience group.

**Method** : The study was naturalistic inquiry.

**Sample** : Purposive sampling was used. 250 teachers of secondary and higher secondary sections of Anand and Kheda districts were the sample of the study.

**Tools** : On the basis of responses on inventories of 250 teachers, 25 high scorers and 25 low scorers were selected for the classroom observation and interview. Teaching learning perception inventory, classroom observation inventory and interview schedule constructed by the investigator were used.

**Data Analysis** : The ‘t’-test and Chi-square test were used for quantitative analysis of data.

**Findings** :

- All the statements are significant. This suggests that perceptions about teaching and learning practice are clearly at the side of statement of TLPI, and teachers have positive perception of teaching learning practices.

- Most of the teachers believe that quality teaching should aim at behavioural change and developing understanding skills for life.
Methods taught at B.Ed. are not practically useful in classroom teaching because of lengthy syllabus, time constrain and large classes.

Teachers accept that they have lost their professional effectiveness.

Teachers define ‘teaching’ as an intellectual activity of inspiring and guiding the students.

General perceptions of the teachers are that they are not able to put theory into practice.

Many teachers praise teachers of today for having more knowledge, good qualifications and sincerity.

Source: Sodhganga, http://www.inflibnet.ac.in/

Study – 36

Subject: A Study of the Effect of B.Ed. Training Programme on Teaching Competency of Pupil Teachers.


Objectives:

- To investigate the effect of B.Ed. training programme on teaching competency of pupil teachers.
- To determine the effect of gender on teaching competency of pupil teachers.
- To determine the effect of academic qualification on teaching competency of pupil teachers.
To determine the effect of academic stream on teaching competency of pupil teachers.

**Hypotheses :**

- There will be no significant difference between the pre – test and post – test mean teaching competency scores of pupil teachers.
- There will be no significant difference between the mean teaching competency scores of female and male pupil teachers.
- There will be no significant difference between the mean teaching competency scores of graduate and post graduate pupil teachers.
- There will be no significant difference between the mean teaching competency scores of arts and science pupil teachers.

**Method :** The study was a Casual – Comparative Research.

**Sample :** 150 B.Ed. Pupil Teachers from Lucknow University and its affiliating Degree Colleges were selected as sample for the study.

**Tools :**

- General Teaching Competency Scale by B.K. Passi and M.S. Lalita (1994), and
- Personal Data Sheet were developed by Researcher for data collection.

**Data Analysis :** The data were analyzed by Mean, SD and CR.

**Findings :**

- B.Ed. training programme plays an effective role as the findings reveal that pupil teachers have show significantly high
improvement in teaching competency, its dimensions and teaching skill.

- Gender plays an effective role as male pupil teachers have shown significant attainment in teaching competency as compared to their female counterparts.

- Academic qualification plays an effective role as post graduate have shown significantly high attainment of teaching competency as compared to the graduates.

- There is no major difference in the gain scores of arts and science pupil teachers.

**Source:** VI Survey of Research in Education, http://eduresearch.dauniv.ac.in

**Study – 37**

**Subject:** A study of Teaching Competency of Student Teachers in relation to certain Non-Cognitive Variables.


**Objectives:**

- To study the General Teaching competency of student Teachers.

- To study the Self - concept of student Teachers.

- To study the Attitude towards Teaching of student Teachers.

- To study the Socio-economic Status of student Teachers.

- To find out the relationship of General Teaching competency and Self-concept of Male, Female and total student Teachers.
Sample: The sample consisted of two hundred B.Ed. student teachers studying in Colleges of Education in Rohtak City. Random Sampling technique was used to select the sample.

Tools:

- General Teaching Competence (GTC) developed by Passi and Lalitha,
- Self-concept Questionnaire developed by R. K. Saraswat,
- Teachers Attitude Inventory (TAI) developed by S. P. Ahluwalia,
- Socio-economic Status Scales developed by Dr. S. P. Kulshrestha.

Data Analysis: The data were analyzed with the help of correlation, t-test and by computing mean and SD.

Findings:

- There is significant relationship between General Teaching Competency and Self-concept, General Teaching competency and Attitude towards Teaching and General Teaching Competency and Socio-economic Status of Male, Female and total Student teachers.
- The mean General Teaching Competency scores of Female student teachers is higher than that of the Male student Teachers.
- The mean Self-concept scores of Female student teachers is not significantly higher than that of the Male student teachers. Hence there is no significant difference in the Self-concept of Male and Female student teachers.
The mean Attitude towards Teaching scores of Female student teachers is significantly higher than that of the Male student teachers.

The mean Socio-economic Status scores of Female student teachers is significantly higher than that of the Male student Teachers.

Source: VI Survey of Research in Education, http://eduresearch.dauniv.ac.in

Study – 38

Subject: Teaching Aptitude of Student Teachers and Their Academic Achievements at Graduate Level.


Objectives:

- To measure the teaching aptitude of student teachers in general and with respect to five different dimensions.
- To make a dimension wise study of the teaching aptitude of student teachers with respect to their gender (Male/Female).
- To see whether there exists any significant relationship between the marks obtained at graduate level examinations and teaching aptitude of student teachers.

Hypotheses:

- Student teachers tend to have high teaching aptitude.

- Male and female student teachers differ in their aptitude in teaching.
There exists a positive correlation between marks obtained in the qualifying examination for B. Ed. course (Graduate level examination Part III) and aptitude in teaching.

**Sample** : Using stratified random sampling, 1081 student teachers undergoing B. Ed. course in three different teacher education institutions of Kannur University and eight different teacher education institutions of Calicut University were selected for the study. The sample consisted of 272 male and 809 female student teachers.

**Tools** :

- Teaching Aptitude Test Battery (T A T B) developed by Singh and Sharma (1998)

The tool consists of the following five dimensions

1. Mental ability
2. Attitude towards children
3. Adaptability
4. Professional information and
5. Professional interest.

The marks obtained in the qualifying examination for B. Ed. course of each student teacher were collected from the office registers of each of the institution and it was taken as the academic achievement at graduate level in the present study. Other general data including gender were collected along with the answer sheets of the test of teaching aptitude.
Data Analysis: The data are analyzed using ‘t’ test and Coefficient of correlation.

Findings:

- Majority of students have ample teaching aptitude.
- The female students are found to be significantly better than their male counterparts in teaching aptitude test.
- The academic achievements at graduate level examination have no substantial relation with aptitude in teaching.

Source: ERIC - ED508977

2.6.2.1 Summary of related studies (12 - 38):

Review of related studies indicates the importance of Teaching Aptitude and the variables that affect teaching aptitude. Some of the studies show gender difference (Kulkarni, 2000) in Teaching Aptitude, but some show no gender difference (Mehta, 2002). Scientific knowledge (Ganguly & others, 1972), attitude towards teaching (Tincher & others, 1986), Scientific attitude and aptitude (Ghosh, 1989), Academic Achievement as predictors of aptitude (Diwan, 1992 & Sajan, 2010), Creativity (Tripathi, 1993), Personality (Kumar, 1993), Human relationship (Bharda, 1993), teacher effectiveness (Dave, 1993), Self-esteem (Jain, 1993), Leisure time activities (Lal, 1994), Mental state (Patil, 1995), job satisfaction (Mary, 1997), academic background (Reddy, 1997), self-concept (Shrivastava, 1999), general intelligence (Kumari, 1999), Teacher competency, Emotional maturity and Mental health (Shakunthala, 2001), vocational aspiration (Bhatt, 2001), Accountability (Hamid, 2002), teaching experience (Mehta, 2002), and,
age, SES, etc., are some of the variables that are related to Teaching Aptitude.

Several studies show that Teaching Aptitude is capable of predicting teacher effectiveness. Teaching Aptitude is based on practice teaching and theoretical studies. The related studies reviewed, give a better understanding of the nature of Teaching Aptitude and the related variables and the relationship between and among them.

The reliability and validity of the most studies were around 0.68 to 0.94 on Alfa scales. The most studies followed the Test-retest, Split-half, K-R methods of finding reliability. The Pearson’s Product moment method to find-out Correlation Coefficient was followed by most of the researches reviewed.

The analysis of the findings of the reviewed studies indicated that there some of the variables that are related to Teaching Aptitude and others are not proved to be related to Teaching Aptitude.

2.7 Meta Analysis:

Studies reviewed in the areas of Teaching Aptitude, Academic Achievement in Teacher Education, Teaching Interest, and Attitude towards teaching profession, Teacher perception of Teacher Effectiveness and Self Concept in Teaching reveal that these variables are inter-related and complementary to each other. The studies indicate several other variables which are related to teaching and give a better understanding of them in different contexts, and different purposes.

The variables associated with effective teaching are innumerable, such as, attitude towards teaching, interest in teaching, self concept in teaching, personality, adjustment, Teaching competency, academic
achievement, teacher effectiveness, teacher perception, cognitive ability, teaching style, commitment, job satisfaction, teaching success, intelligence, gender, age, qualification, classroom climate, teacher behaviour, teacher communication, meta cognition, values, worry, anxiety, locale, concern for students' progress, motivation etc.

The review of studies on construction and standardization of teaching aptitude test reveals that though the teacher and the teacher educators are aware of the importance of teaching aptitude and its measurement, in nearly three decades time (from 1970 to 2010) only a few standardized teaching aptitude tests have been develop by researchers. Again, out of the available studies most of them have concentrated upon the development of teaching aptitude scale/test for primary and/or secondary school teachers. For other groups of students a very scant attention has been paid by the researchers.

While on the one hand adequate attention should be paid for the development of teaching aptitude test for different age group of students, higher emphasis should be laid upon the development of teaching aptitude test for secondary and/or higher secondary school teachers, and especially the teacher trainees of B.Ed. who will practice the best practices in their future. The review suggested that there are no comprehensive studies covering the variables. viz., Teaching Aptitude, I.Q., E.Q., Parent’s Occupation, Academic Achievement Score, Recreational Activities and Sex of B.Ed. students. The present study, in this context, is an attempt to fill the gaps, if any, in the studies conducted so far, and the findings of the study may initiate further investigation of this kind.
2.8 Conclusion:

In the present chapter an attempt has been made to bring together the important theoretical viewpoints regarding Teacher Aptitude. The concept of aptitude is reconstructed. Modern interpretation emphasizes readiness to learn in particular instructional situations and recognizes cognitive and affective as well as cognitive sources of aptitude.

Two problems make it little difficult to give a satisfactory definition of aptitude. First, is it inherited? Second, is it a unitary trait or a combination of many traits? Individuals differ greatly in their gifts and capacities, such differences being both quantitative and qualitative. In general, there are three classes of individuals, differing quantitatively with respect to their general mental equipment. They are the talented or gifted persons, the average persons, or persons of medium ability and the sub normal. A list of different traits to be measured through-out this study was defined briefly in order to have clear understanding of the test prepared.

A review of the past studies which were related mostly to the present problem provided an insight in to 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.

Teaching aptitude is one of the major determinants of teacher effectiveness (Vyas, 1982). It is also found to be a good predictor of teacher effectiveness (Beena, 1995). Kukruti (1990) in a study of some psychological correlates of successful teachers found that there is a positive relationship between aptitude and success in teaching.

Aptitude, according to Warren's dictionary, is "a condition or set of characteristics regarded as symptomatic of an individual's ability to
acquire with training some knowledge, or skill or set of responses."
Research indicates that everyone does not have the ability or the aptitude
to take up teaching. Certain minimum requirements in the way of
intelligence, temperament, and personality are observed to be highly
critical.

Research suggests that there are eight core competencies that a
potential teacher must possess. These are: communication skills,
intelligence, maturity, perception, persistence, receptivity, social warmth
and teaching interest. Through the present test, the researcher aimed
about testing the teaching aptitude of B.Ed. students on such different
psychological traits.

The studies reviewed reveal that a few researches have undertaken
to study on teaching aptitude of B.Ed. students 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 B.Ed. students aptitude in the context of some
psycho-socio variables such as I.Q., E.Q., Parent’s Occupation, Academic
Achievement Score, Recreational Activities etc.

It is all the way possible that the impetus gained by educational
researches in the past two decades the Government efforts for
improvement in quality of education, changing socio-economic and
environmental 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 the profession,
Hence, it would be worthwhile to measure the same with a fresh tool and
explore its relationship with other potential variables and thereby suggest
some programmes to be undertaken by the future researchers in the field
of teaching aptitude.
REFERENCES


5. Ibid. op Cit. P.18

6. Ibid. P.18


8. Ibid. op Cit. PP. 59-60

9. Ibid. P.58


11. Bingham, H.V., op. cit. P. 11


