CHAPTER IV
SUMMARY

4.1 INTRODUCTION

The foundation of civilization and progress of individual fundamentally depends on the factors of education. It is through education that personality of individual is unveiled in its entire aspects-physical, intellectual, social, emotional, moral, spiritual and aesthetic. It enables him to be intelligent, learned, skilful, bold, courageous and virtuous. It transforms him from instinctional animal to social and rational animal. It is only through education that moral ideals, spiritual values, aspirations of nation, cultural heritage and contents are transferred from one generation to another without any compromise. This process never ends. It is a continuous process. The destiny of nation solely rests upon education and teachers are the destiny makers. Quality of education depends upon the quality of individual teachers and their training because teachers are pillars of education system. Teacher training helps a teacher in better understanding of principle and techniques involved in the process of teaching, like use of audio-visual aids, maxims, teaching skills, methods etc. Teacher training develops confidence, knowledge about psychology of child, positive attitude towards profession, aptitude and ability among prospective teachers which make them effective teachers, because ‘TEACHERS ARE MADE, NOT BORN.’

So teacher is a developed personality. He converts and controls the teaching environment through the direct influence of his personality. Every teacher should therefore be equipped with proper teaching methodology for playing his role effectively in the teaching-learning process. For this purpose he must clearly understand the concept and meaning of the task of teaching and the mechanism of teaching process through the different variables, operations and phases, etc. involved in teaching. So, it is essential for every teacher to know the concept and mechanism of teaching.
4.2 TEACHING
Teaching includes all the activities of providing education to other. The person who provides education is called teacher. The teacher uses different methods for giving the best knowledge to his students.

Ryan (1965), “The process of teaching includes all those behaviors or activities of persons as they go about doing whatever is required of teachers, particularly those activities which are concerned with the guidance or direction of learning of others.

According to Deethardt (2007), “Teaching is a process of diagnosis, awareness, experiences, critical feedback, testing.”

Johnston, Halocha and Chater (2007): “Teaching is a complex process which involves the development and utilization of subject knowledge and teaching skills”.

Teaching is leaving a vestige of one self in the development of another. And surely the student is a bank where we can deposit our most precious treasures.

Teaching is the art of educating other people. It is very comprehensive and only a small fraction of it has been understood so far.

Good teaching depends upon the knowledge of teaching skills, subject, students, technical competency, teaching resources, positive attitude towards teaching and communication skills.

4.3 SKILLS
A skill is the learned capacity to carry out predetermined results often with the minimum outlay of time, energy, or both.

Passi (1981), “A skill is a set of inter-related teacher behaviors aiming at producing pre-decided desirable learning outcomes. These behaviors should be definable, observable, measurable and trainable.

Rehearsal of the skill must be done regularly and correctly. It can be done only by practice. In the field of education practice of each skill is done only by
teaching. Teaching a skill is more objective and tangible in nature, for example, trying to teach an insight. However, the focus is on the learners; Teacher is trying to help them by using teaching skills and be able to use it with a sense of comfort and confidence.

Characteristics of skills based on the ability of individual, dexterity, talent, techniques, performance and practices. So it is an ability comes through training.

There are various types of skills like perceptual, motor, academic, communication, social, innovation etc. And we learn skills through three phases i.e. cognitive, associative and autonomous. (Fitts and Posner, 1967).

Skills are learned through practice and give the direction to teach.

4.4 TEACHING SKILLS

Teaching skill is that art of the teacher which makes communication between the teacher and pupils sufficiently. So teaching skill is defined as a set of teacher behavior which is especially effective in bringing about desired changes in pupil teachers.

Passi (1976) concluded that teaching constitute a number of verbal and non-verbal teaching acts, like questioning, accepting pupil response, rewarding, smiling, nodding to pupil response, movements, gestures etc. These acts in particular combination facilitate the achievement of objectives in terms of pupil growth.

Skills of teaching and good qualities can not be developed in teacher within a short span of training. Training say reorientation of higher education and teacher will help the prospective teachers to understand the environment of the learner and how to modify it (Panda, 1997).

Ehindro and Ajibade (2000) posit that: teaching is a process of continuous personal development and professional self- discovery along side an emerging understanding of the teaching and learning process. If there is art essential to good
teaching, it is that of communication. It is very important because teaching cannot occur without the use of oral or sign language communication.

Moon, Mayes & Hutchinson (2004) indicated that there are three main factors within teacher's control that significantly influence pupil achievement are professional characteristics, teaching skills and classroom climate.

So Teaching is a skill that is best developed over time. Like all skills, teaching should be developed through practice.


So there are numerous teaching skills. But every time it is not possible to train all the pupil teachers in all these skills in training programme because of the constraints of time and funds. Therefore a set of teaching skills which cuts across the subject areas has been identified. They have been found very useful for every teacher. The set of these skills are known as Core Teaching Skills.

Core Teaching Skills are those teaching skills which cut across the subject areas and are useful for every teacher in teaching any subject. Objectives of core teaching skills are to understand the concept and components of core teaching skills, to observe micro-lesson plan, give feed-back, integrate core teaching skills in macro-lesson and becoming better teacher. Kumar (2008) gave a list of nineteen core teaching skills.

All the skills require more practice. Practice of a skill is the second and major component of microteaching. Microteaching offers prospective teachers the opportunity to learn teaching skills, to study their own teaching, and to study the teaching of others. Microteaching has been described as a "scaled-down" teaching
situation, involving 3 to 10 teacher education students in a 5 to 10 minute lesson, which is often videotaped for future reference.

Micro teaching is a procedure in which a student teacher practices teaching with a reduced number of pupils in a reduced period of time with emphasis on a narrow and specific teaching skill.

According to Allen & Eve (1968), “Microteaching is defined as a system of controlled practice that makes it possible to concentrate on specified teaching behaviour and to practice teaching under controlled conditions.”

According to Singh (1977), “Microteaching is a scaled down teaching encounter in which a teacher teaches a small unit to a group of five pupils for a small period of 5 to 20 minutes.”

According to Saxena (2004), “Microteaching is a new approach has been developed in USA; develop those skills in teachers which are very necessary for teaching.”

Objectives of microteaching are to enable teacher trainees to learn and assimilate new teaching skills, gain confidence, master teaching skills etc. Microteaching is a highly individualized training device and demand immediate feedback and experimental in nature. Different steps have been followed during the process of microteaching. It involves a micro-teaching cycle followed by six steps and fixed duration i.e. Teach: 6 Minutes, Feedback: 6 Minutes, Re-Plan: 12 Minutes, Re-Teach: 6 Minutes, Re-Feedback: 6 Minutes.

Mastery of teaching skills attained through microteaching and the teacher trainee is allowed to teach the skills together. This separate training programme to integrate various isolated skills is known as integration of teaching skill.

Integration of skills can be done in two ways; A) Integration in parts; B) Integration as a whole. Integration of teaching skills help the trainee to transfer effectively all the skills learnt in the micro teaching sessions and to bridge the gap between training in isolated teaching skills and the real teaching situation faced by a student teacher.
Microteaching helps in development of teaching skills, effective in modifying teacher behavior, employs real teaching situation, provides repeated practice, provides experts supervision, reduces complexities of teaching, develop specific teaching competencies etc.

Teaching skills are related to the way in which the teacher has performed the activities. The assessment of teaching skills should focus on how the teacher works, not what the teacher has done.

Skills are a backward looking description, and describe what a person has learned to do in the past. Abilities are a present description, and describe what a person can do now, including things which were not explicitly learned skills. Aptitudes are a forward looking description and describe skills a person has the ability to learn in the future.

### 4.5 APTITUDE

Etymologically Aptitude derived from Latin word ‘aptitudo’. It means apt, fit i.e., talent, suitable.

Aptitude is a quality somebody possesses since the time of his birth and he doesn't develop it at the later part of life. There is no certain category of quality that defines the aptitude of a person and it can be both mental and physical. 

Kar (2001), “An aptitude is the capacity to profit from training in some particular skill.”

According to Mangal (2006), “Aptitude may be described as a special ability or specific capacity distinct from the general intellectual ability which helps an individual to acquire the required degree of proficiency or achievement in a specific field.”

Aptitudes are natural talents, special abilities for doing, or learning to do, certain kinds of things. Positive aptitudes help to cope more easily with the daily affairs of life. It brings optimism into ones life, and makes it easier to avoid worry and negative thinking. It will bring constructive changes into life, and makes the
individual happier, brighter and more successful. With a positive aptitude individual sees the bright side of life, become optimistic and expect the best to happen. It is certainly a state of mind that is well worth developing and strengthening.

High aptitude has much importance in every field of life, and it requires 3 elements, which strengthen it are keen awareness, practice and mentorship.

So aptitude is an individual’s ability to learn or to develop proficiency in an area if provided with appropriate training or education

### 4.6 TEACHING APTITUDE

Teaching aptitude may refer to a person’s capacity or hypothetical potential for acquisition of certain characteristics, mental abilities and inclination involved towards the teaching profession with respect to which the individual has had little or no previous training.

According to Chauhan (1999), Aptitude means an individual’s aptitude for a given type of activity, the capacity to acquire proficiency under appropriate conditions that is his potentialities at present as revealed by his performance on selected tests have predictive value.

Srivastava (2009), “Teaching aptitude refers to the qualities, traits and skills pertaining to teaching which a person possesses naturally or acquires through self-effort and which gets reflected in his inclination towards teaching and are helpful to him in performing his job dexterously.”

Thus, an aptitude is a measure of the probable rate of learning, which results in interest and satisfaction. Aptitude is a combination of characteristics indicative of an individual’s capacity to acquire some specific knowledge, skill or set of organized responses such as the ability to become a teacher.
Teaching aptitude helps the teacher and learner in teaching learning process and gives fruitful conclusions. Sharma (1984) found a positive correlation between aptitude, intellectual level and morality of prospective teacher.

Attitude is related to existing abilities and skills with certain perceptions while aptitude is the potential ability to acquire skills, abilities and knowledge.

4.7 ATTITUDE

Attitude means the individual's prevailing tendency to respond favorably or unfavorably to an object (person or group of people, institutions or events).

According to Fazio and Roskes (1994) “attitudes are important to educational psychology because they strongly influence social thought, the way an individual thinks about and process social information”.

According to Skinner (2004), Attitude have been defined as ideas with emotional content, important beliefs, prejudices, biases, predispositions, appreciations, and as states of readiness or set.

So attitude could be defined as a consistent tendency to react in a particular way—often positively or negatively toward any matter. Attitude possesses both cognitive and emotional components.

There are basically attitudes are of three types i.e. positive, negative and neutral. Attitudes are psychological object and stable, have the power to motivate, cannot observe directly, and involve evaluation. They help in making important judgments, useful in prediction, and serve as way to organize relation with the world.

An individual with positive attitude always belief in choice, possibilities, future and approach. Attitudes are determined by education, experience and environmental factors. Attitudes are judgments and include affective, behavioral and cognitive components.
4.8 ATTITUDE TOWARDS TEACHING

Attitudes toward teaching, according to the authors Cook, Leeds and Callis (1951) include the success of teacher-pupil relationship and the teacher's satisfaction with own profession.

Teacher’s attitude is an important variable in classroom application of new ideas and novel approaches to instruction (Reinke & Moseley, 2002).

A teacher with the right attitude puts students’ learning as the ultimate goal and will mix and match all the available tools and techniques to suit the teaching-learning process unique to a given subject or topic or class. Some good teachers may be born, but most of them are made, as products of a good teaching-learning process.

4.9 REVIEW OF RELATED STUDIES

Vashishta (1973) in a study of predictive efficiency of admission criteria for B.Ed students found that teaching aptitude, academic grades and attitude towards teaching to be the best predictors of teacher effectiveness.


Bhasin (1988) found positive significant correlation between teaching aptitude and teacher effectiveness. Singh (1991), found attitude towards teaching profession related to teacher effectiveness. Ralph (2005) studied the factors effecting teacher candidate’s practicum evaluations and revealed that the interns were moderately competent in the skills of presenting and classroom management.
Ehindero and Ajibabe (2007) found lack of teaching skills responsible for poor academic performance among undergraduates.

Babu et al (2007) reported primary school teachers have high teaching aptitude and considered most efficient teachers.


Where as Ken and Kleine (1984) and Jain (1992) found low but positive relationship between teacher’s classroom activity and teaching aptitude.

Kaur (2010) found social study prospective teachers had shown more significant relation than science stream prospective teachers for teaching competence and teaching aptitude.

Banga (2003) found no positive relation between teacher effectiveness and attitude towards teaching. Pushpam (2003), professional qualification did not influence the attitude of women teachers towards teaching profession.

Teaching effectiveness was found to be correlated significantly with attitude towards the teaching profession by Vashishta (1973), Bhalwankar (1984), and Singh (1987). Where as Banga (2003) found no positive relation between teacher effectiveness and attitude towards teaching.

Downing et al (1997), Thamilmani (2000) found teaching competency was related to attitudes toward teaching science.

Where as Chahar (2005), and Gultekin (2006) found significant relationship between Teaching Competency and Attitude towards teaching.

4.10 EMERGENCE OF THE PROBLEM

For any change, every nation has expectations from its teachers and the citizens in general. Education ought, therefore, need to aim at the development of power of adaptation to an ever changing Social environment. It is believed that
every individual is born with latent potentials and education helps in its further development. Moreover, education is considered to be a process which contributes to the natural and harmonious development of man’s innate powers, brings out complete development of his individuality, results into desirable behavior changes and ultimately prepares him for happy and responsible life.

It is evident that the effective and efficient functioning of any institute primarily depends on the quality and commitment of its human resources. The right attitude towards the profession, involvement in teaching, concern over the profession, aptitude towards teaching zeal and enthusiasm in his profession, mental health of the teacher are essential requisite conditions to prevail in a teacher who could definitely bring success in his school programme.

The ultimate criterion for judging a teacher, a teaching institution, a teacher-education programme, or even an entire establishment engaged in imparting education, is the improvement in the education of the millions of learners.

So for the fulfillment of these objectives, society has need of competent teachers and this study will help in the investigation of those prospective teachers.

4.11 STATEMENT OF THE PROBLEM:
The problem is stated as
“APPRAISAL OF TEACHING SKILLS OF PROSPECTIVE SCIENCE AND SOCIAL STUDY TEACHERS IN RELATION TO TEACHING APTITUDE AND ATTITUDE TOWARDS TEACHING.”

4.12 DELIMITATIONS
1. Teaching Skills covered in the Baroda General Teaching Competency Scale given Skill of ( Writing instructional Objectives, Introducing a Lesson, Fluency in Questioning, Probing Questioning, Explaining, Illustrating with
Examples, Stimulus Variation, Silence and Non Verbal Cues, Reinforcement, Increasing Pupil Participation, Using Blackboard, Achieving Closure, Recognizing Attending Behavior) were taken for the present study.

2. Teaching Skills were compared with Aptitude and Attitude towards Teaching.

3. The area of the study was limited to Colleges of Educations having permanent affiliation to Punjab University, Chandigarh only.

4. The Prospective Teachers selected for the study were pre-service Science and Social Studies Teacher Trainees only.

4.13 OBJECTIVES OF THE STUDY

The study was conducted with following objectives in view:

1 (a) To study the relation between Teaching Skills and Teaching Aptitude of Prospective Science Teachers.

1 (b) To study the relation between Teaching Skills and Teaching Aptitude of Prospective Social Studies Teachers.

2 (a) To study the relation between Teaching Skills and Attitude towards Teaching of Prospective Science Teachers.

2 (b) To study the relation between Teaching Skills and Attitude towards Teaching of Prospective Social Studies Teachers.

3 (a) To compare the conjoint effect of Teaching Aptitude and Attitude towards teaching towards the prediction of Teaching Skills among Prospective Science Teachers.

3 (b) To compare the conjoint effect of Teaching Aptitude and Attitude towards teaching towards the prediction of Teaching Skills among Prospective Social studies Teachers.
4.14 HYPOTHESES

Directed towards the objectives of the study and on the basis of review of related literature following hypothesis were formulated for verification:

1. (a) There will be no significant relation between Teaching Skills and Teaching Aptitude of Prospective Science Teachers.
1. (b) There will be no significant relation between Teaching Skills and Teaching Aptitude of Prospective Social Studies Teachers.

2. (a) There will be no significant relation between Teaching Skills and Attitude towards Teaching of Prospective Science Teachers.
2. (b) There will be no significant relation between Teaching Skills and Attitude towards Teaching of Prospective Social Studies Teachers.

3. (a) The prediction of Teaching Skills among the Prospective Science Teachers on the basis of conjoint effect of Teaching Aptitude and Attitude towards Teaching will be significantly higher as compared to their separate prediction.
3. (a) The prediction of Teaching Skills among the Prospective Social Studies Teachers on the basis of conjoint effect of Teaching Aptitude and Attitude towards Teaching will be significantly higher as compared to their separate prediction.

4.15 SAMPLING OF THE STUDY

The process of using a part, as a basis for an estimate of the whole is known as sampling. Sampling is an essential item in the field of research. An investigator wants to collect data for a particular problem, but it is not possible for him / her to reach every member of the population. The conclusion is drawn and generalizations are made for the whole population. Therefore, the investigator should by his / her best to select such a sample, as it kindly represents a large group of individual or the whole population.
Multi-stage sampling technique (two-stage) was used in the present study. At the first stage 5 Colleges of Education affiliated to Punjab University, Chandigarh (having permanent affiliation) were selected randomly. At the second stage, 20 Teacher Trainees per college were selected randomly, 10 each from science and social study stream. Thus, the total sample for the study will be of 200 Teacher Trainees.

4.16 SAMPLE DESIGN

4.17 DESIGN OF THE STUDY

Descriptive exploratory method of research was employed for present study. There were two independent variables namely teaching Aptitude and Attitude towards Teaching and one dependent variable namely Teaching Skills. Data will be collected during the teaching practice and discussion lesson of the Teacher Trainees. Karl Pearson’s correlation technique was used to find the relation between dependent variable (Teaching Skill) and independent variables (Teaching Aptitude and Attitude towards Teaching). Multiple-correlation was
used to find the conjoint effect of independent variables of Teaching Aptitude and Attitude towards Teaching on dependent variable of Teaching Skills. Equation to predict the Teaching Skills on the basis of Teaching Aptitude and Attitude towards Teaching was developed.

4.18 TOOLS USED

The selection of suitable tool or instrument is of vital importance for the collection of data in any research study.

The tools used to collect data were:

4.19 MAJOR FINDINGS AND CONCLUSIONS

1. For Prospective Science Teachers, the values of correlation between Skill of writing Instructional Objectives and Teaching Aptitude, Skill of Introducing a Lesson and Teaching Aptitude, Skill of Fluency in Questioning and Teaching Aptitude, Skill of Probing Questions and Teaching Aptitude, Skill of Explaining and Teaching Aptitude, Skill of Illustrating with Example and Teaching Aptitude, Skill of Stimulus Variation and Teaching Aptitude, Skill of Silence and Non Verbal Cues and Teaching Aptitude, Skill of Reinforcement and Teaching Aptitude, Skill of Increasing Pupil Participation and Teaching Aptitude, Skill of Using Blackboard and Teaching Aptitude, Skill of Achieving Closure and Teaching Aptitude, and Skill of Recognizing Attending Behaviour and Teaching Aptitude are 0.306, 0.249, 0.244, 0.285, 0.237, 0.278, 0.253, 0.287, 0.233, 0.279, 0.292, and 0.266 respectively. All these values are positive and significant.

The values of correlation for Skill of writing Instructional Objectives, Skill of Probing Questions, Skill of Illustrating with Example, Skill of Stimulus Variation, Skill of Reinforcement, Skill of Using Blackboard, Skill of Achieving Closure and Skill of Recognizing Attending Behaviour with Teaching Aptitude of
Prospective Science Teachers are significant at level of 0.01 level of significance, where as for remaining values of correlation of Skill of Introducing a Lesson, Skill of Fluency in Questioning, Skill of Explaining, Skill of Silence and Non Verbal Cues, and Skill of Increasing Pupil Participation with Teaching Aptitude of Prospective Science Teachers are significant at level of 0.05 level of significance.

2. For Prospective Social Study Teachers, The values of correlation between Skill of writing Instructional Objectives and Teaching Aptitude, Skill of Introducing a Lesson and Teaching Aptitude, Skill of Fluency in Questioning and Teaching Aptitude, Skill of Probing Questions and Teaching Aptitude, Skill of Explaining and Teaching Aptitude, Skill of Illustrating with Example and Teaching Aptitude, Skill of Stimulus Variation and Teaching Aptitude, Skill of Silence and Non Verbal Cues and Teaching Aptitude, Skill of Reinforcement and Teaching Aptitude, Skill of Using Blackboard and Teaching Aptitude, Skill of Achieving Closure and Teaching Aptitude, and Skill of Recognizing Attending Behaviour and Teaching Aptitude are 0.357, 0.338, 0.391, 0.343, 0.317, 0.364, 0.242, 0.367, 0.319, 0.257, 0.376, 0.325 and 0.275 respectively. All these values are positive and significant.

The values of correlation for Skill of writing Instructional Objectives, Skill of Introducing a Lesson, Skill of Fluency in Questioning, Skill of Probing Questions, Skill of Explaining, Skill of Illustrating with Example, Skill of Silence and Non Verbal Cues, Skill of Reinforcement, Skill of Using Blackboard, Skill of Achieving Closure, Skill of Recognizing Attending Behaviour with Teaching Aptitude of Prospective Social Studies Teachers are significant at level of 0.01 level of significance, whereas the values of correlation for Skill of Stimulus Variation, Skill of Increasing Pupil Participation with Teaching Aptitude of Prospective Social Studies Teachers are significant at level of 0.05 level of significance.
These findings of the study are in consonance with the findings of study by Sharma (2006), Srivastava & Pratibha (2009) and Sunpreet (2010). This may be justified by the study of Carroll (1963) who proposed that the time needed by students to learn academic content is contingent upon aptitude (the most often used measure is IQ), ability to understand the instruction presented (the extent to which they possessed prerequisite knowledge), and the quality of instruction students receive in the process of learning. Bloom (1971), a colleague of Carroll's, also observed that in traditional schooling a student's aptitude for learning academic material (IQ) is one of the best predictor's of school achievement.

The job of teaching requires certain basic abilities which may be seen as more meaningful for handling related teaching learning situation. The cognitive abilities which include perceptual clarity, organizational ability, environmental sensitivity and good language may be some of the basic abilities required to effectively perform the job of a teacher. A person in possession of such related abilities may be taken as having high aptitude for teaching Khatal (2010). A close relation between aptitude and effectiveness is thus expected. Teaching aptitude has been found to be positively and significantly related to teacher effectiveness by Khatal (2010). Kaur (2007) has found that teaching aptitude of student teacher has high relationship with all the indictors of success in the elementary teacher education course. The components of teaching aptitude namely ‘Cooperative attitude’ and ‘Optimism’ have contributed significantly to all the indicator of success.

3. For Prospective Science Teachers, The values of correlation between Skill of writing Instructional Objectives and Attitude towards Teaching, Skill of Introducing a Lesson and Attitude towards Teaching, Skill of Fluency in Questioning and Attitude towards Teaching, Skill of Probing Questions and Attitude towards Teaching, Skill of Explaining and Attitude towards Teaching, Skill of Illustrating with Example and Attitude towards Teaching.
Stimulus Variation and Attitude towards Teaching, Skill of Silence and Non Verbal Cues and Attitude towards Teaching, Skill of Reinforcement and Attitude towards Teaching, Skill of Increasing Pupil Participation and Attitude towards Teaching, Skill of Using Blackboard and Attitude towards Teaching, Skill of Achieving Closure and Attitude towards Teaching, and Skill of Recognizing Attending Behaviour and Attitude towards Teaching are 0.211, 0.199, 0.198, 0.202, 0.237, 0.198, 0.220, 0.243, 0.209, 0.215, 0.203, 0.208 and 0.295 respectively. All these values are positive and significant.

The value of correlation for Skill of Recognizing Attending Behaviour with Attitude towards Teaching of Prospective Science Teachers is significant at level of 0.01 level of significance, whereas and The values of correlation for Skill of writing Instructional Objectives, Skill of Introducing a Lesson, Skill of Fluency in Questioning, Skill of Probing Questions, Skill of Explaining, Skill of Illustrating with Example, Skill of Stimulus Variation, Skill of Silence and Non Verbal Cues, Skill of Reinforcement, Skill of Increasing Pupil Participation, Skill of Using Blackboard, Skill of Achieving Closure with Attitude towards Teaching of Prospective Science Teachers are significant at level of 0.05 level of significance.

4. For Prospective Social Study Teachers, The values of correlation between Skill of writing Instructional Objectives and Attitude towards Teaching, Skill of Introducing a Lesson and Attitude towards Teaching, Skill of Fluency in Questioning and Attitude towards Teaching, Skill of Probing Questions and Attitude towards Teaching, Skill of Explaining and Attitude towards Teaching, Skill of Illustrating with Example and Attitude towards Teaching, Skill of Stimulus Variation and Attitude towards Teaching, Skill of Silence and Non Verbal Cues and Attitude towards Teaching, Skill of Reinforcement and Attitude towards Teaching, Skill of Increasing Pupil Participation and Attitude towards Teaching, Skill of Using Blackboard and Attitude towards Teaching, Skill of Achieving Closure and Attitude towards Teaching, and Skill of Recognizing
Attending Behaviour and Attitude towards Teaching are 0.244, 0.221, 0.221, 0.264, 0.219, 0.222, 0.207, 0.305, 0.198, 0.220, 0.231, 0.208 and 0.217 respectively. All these values are positive and significant.

The value of correlation for Skill of Probing Questions, Skill of Silence and Non Verbal Cues with Attitude towards Teaching of Prospective Social Study Teachers is significant at level of 0.01 level of significance, whereas the values of correlation for Skill of writing Instructional Objectives, Skill of Introducing a Lesson, Skill of Fluency in Questioning, Skill of Explaining, Skill of Illustrating with Example, Skill of Stimulus Variation, Skill of Reinforcement, Skill of Increasing Pupil Participation, Skill of Using Blackboard, Skill of Achieving Closure, Skill of Recognizing Attending Behaviour with Attitude towards Teaching of Prospective Social Study Teachers are significant at level of 0.05 level of significance.

These findings are well supported by the study earlier conducted by Thamilmani (2000). This may be due to According to Nasr (1996) Lecturers with a higher attitude, score toward effective teaching obtained significantly higher scores in the student ratings of their teaching performance. This outcome supports the contention of Dunkin (1995) that having a positive attitude toward teaching and the effectiveness of teaching are certainly related to each other. The findings suggest that if lecturers' attitudes toward teaching can be stimulated through teaching development programs and other incentive programs there should be an enhancement in their teaching performance (Sergiovanni & Starratt, 1993; Gow & Kember, 1993; Trigwell & Prosser, 1994b; 1996; Gillett & Bell, 1996). The results also confirm the claims of Conners, et al. (1990) and Wyatt and Pickle (1993) that having a positive attitude toward the various components of effective teaching can affect teaching performance.

5. For Prospective Science Teachers, 9.4% of Skill of writing Instructional Objectives was predicted by Teaching Aptitude and 4.5% by Attitude towards
Teaching. Teaching Aptitude and Attitude towards Teaching conjointly predicted 13.9% of Skill of writing Instructional Objectives.

6.2% of Skill of Introducing a Lesson was predicted by Teaching Aptitude and 4.0% by Attitude towards Teaching. Conjointly Teaching Aptitude and Attitude towards Teaching predicted 10.2% of Skill of Introducing a Lesson.

6.0% of Skill of Fluency in Questioning was predicted by Teaching Aptitude and 3.9% by Attitude towards Teaching. Teaching Aptitude and Attitude towards Teaching conjointly predicted 9.9% of Skill of Fluency in Questioning.

8.1% of Skill of Probing Questions was predicted by Teaching Aptitude by 4.1% and Attitude towards Teaching. Conjointly Teaching Aptitude and Attitude towards Teaching predicted 12.2% of Skill of Probing Questions.

5.6% of Skill of Explaining was predicted by Teaching Aptitude and 5.6% by Attitude towards Teaching. Teaching Aptitude and Attitude towards Teaching conjointly predicted 11.2% of Skill of Explaining.

7.7% of Skill of Illustrating with Example was predicted by Teaching Aptitude and 3.9% by Attitude towards Teaching. Conjointly Teaching Aptitude and Attitude towards Teaching predicted 11.6% of Skill of Illustrating with Example.

7.7% of Skill of Stimulus Variation was predicted by Teaching Aptitude and 4.9% by Attitude towards Teaching. Teaching Aptitude and Attitude towards Teaching conjointly predicted 12.6% of Skill of Stimulus Variation.

6.4% of Skill of Silence and Non Verbal Cues was predicted by Teaching Aptitude and 5.9% by Attitude towards Teaching. Conjointly Teaching Aptitude and Attitude towards Teaching predicted 12.3% of Skill of Silence and Non Verbal Cues.

8.3% Skill of Reinforcement was predicted by Teaching Aptitude and 4.4% by Attitude towards Teaching. Teaching Aptitude and Attitude towards Teaching conjointly predicted 12.7% of Skill of Reinforcement.
5.4% of Skill of Increasing Pupil Participation was predicted by Teaching Aptitude and 4.6% by Attitude towards Teaching. Conjointly Teaching Aptitude and Attitude towards Teaching predicted 10.0% of Skill of Increasing Pupil Participation.

7.8% Skill of Using Blackboard was predicted by Teaching Aptitude and 4.1% by Attitude towards Teaching. Teaching Aptitude and Attitude towards Teaching conjointly predicted 11.9% of Skill of Using Blackboard.

8.5% of Skill of Achieving Closure was predicted by Teaching Aptitude and 4.3% by Attitude towards Teaching. Conjointly Teaching Aptitude and Attitude towards Teaching predicted 12.8% of Skill of Achieving Closure.

7.1% of Skill of Recognizing Attending Behaviour was predicted by Teaching Aptitude and 8.7% by Attitude towards Teaching. Teaching Aptitude and Attitude towards Teaching conjointly predicted 15.8% of Skill of Recognizing Attending Behaviour.

All the values of conjoint predictions of different skills on the basis of Teaching Aptitude and Attitude towards Teaching are significantly higher as compared to their separate predictions. This may be due to the positive and significant relation of Teaching Skills with Teaching Aptitude and Attitude towards Teaching found by the investigator. These finding are supported by Vashishta (1973) who concluded that teaching aptitude, academic grades and attitude towards teaching to be the best predictors of teacher effectiveness.

6. For Prospective Social Study Teachers, 12.8% of Skill of writing Instructional Objectives was predicted by Teaching Aptitude and 5.9% by Attitude towards Teaching. Teaching Aptitude and Attitude towards Teaching conjointly predicted 18.7% of Skill of writing Instructional Objectives.

11.4 of Skill of Introducing a Lesson was predicted by Teaching Aptitude and 4.9% by Attitude towards Teaching. Conjointly Teaching Aptitude and Attitude towards Teaching predicted 16.3% of Skill of Introducing a Lesson.
15.3% of Skill of Fluency in Questioning was predicted by Teaching Aptitude and 4.9% by Attitude towards Teaching. Teaching Aptitude and Attitude towards Teaching conjointly predicted 20.2% of Skill of Fluency in Questioning.

11.8% of Skill of Probing Questions was predicted by Teaching Aptitude and 6.9% by Attitude towards Teaching. Conjointly Teaching Aptitude and Attitude towards Teaching predicted 18.7% of Skill of Probing Questions.

10.1% of Skill of Explaining was predicted by Teaching Aptitude and 4.8% by Attitude towards Teaching. Teaching Aptitude and Attitude towards Teaching conjointly predicted 14.9% of Skill of Explaining.

13.3% of Skill of Illustrating with Example was predicted by Teaching Aptitude and 4.9% by Attitude towards Teaching. Conjointly Teaching Aptitude and Attitude towards Teaching predicted 18.2% of Skill of Illustrating with Example.

5.8% of Skill of Stimulus Variation was predicted by Teaching Aptitude and 4.3% by Attitude towards Teaching. Teaching Aptitude and Attitude towards Teaching conjointly predicted 10.1% of Skill of Stimulus Variation.

13.4% of Skill of Silence and Non Verbal Cues was predicted by Teaching Aptitude and 9.3% by Attitude towards Teaching. Conjointly Teaching Aptitude and Attitude towards Teaching predicted 22.7% of Skill of Silence and Non Verbal Cues.

10.2% Skill of Reinforcement was predicted by Teaching Aptitude and 3.8% by Attitude towards Teaching. Teaching Aptitude and Attitude towards Teaching conjointly predicted 14.0% of Skill of Reinforcement.

6.6% of Skill of Increasing Pupil Participation was predicted by Teaching Aptitude and 4.8% by Attitude towards Teaching. Conjointly Teaching Aptitude and Attitude towards Teaching predicted 11.4% of Skill of Increasing Pupil Participation.
14.1% Skill of Using Blackboard was predicted by Teaching Aptitude and 5.4% by Attitude towards Teaching. Teaching Aptitude and Attitude towards Teaching conjointly predicted 19.5% of Skill of Using Blackboard.

10.5% of Skill of Achieving Closure was predicted by Teaching Aptitude and 4.3% by Attitude towards Teaching. Conjointly Teaching Aptitude and Attitude towards Teaching predicted 14.8% of Skill of Achieving Closure.

7.5% of Skill of Recognizing Attending Behaviour was predicted by Teaching Aptitude and 4.7% by Attitude towards Teaching. Teaching Aptitude and Attitude towards Teaching conjointly predicted 12.2% of Skill of Recognizing Attending Behaviour.

All the values of conjoint predictions of different skills on the basis of Teaching Aptitude and Attitude towards Teaching are significantly higher as compared to their separate predictions. This may be due to the positive and significant relation of Teaching Skills with Teaching Aptitude and Attitude towards Teaching found by the investigator. These findings are supported by Vashishta (1973) who concluded that teaching aptitude, academic grades and attitude towards teaching to be the best predictors of teacher effectiveness.

4.20 EDUCATIONAL IMPLICATIONS

This Study showed that there was a significant relationship between teaching skills and teaching aptitude, so a proper testing scheme should be made essential to measure teaching aptitude in pre-training selection. The study suggests that there should be a comprehensive written test for teacher trainees. In this test items should be utilized to know candidates attitude and interest towards teaching, children, their social contacts, attitude regarding innovational activities of the school and professional ethics and teaching potentialities and current knowledge. Only those candidates should be allowed to enter into this profession, whose responses are found up to the mark with these results, only then teacher will be
competent in teaching and it will help to check the misfits in the teaching profession.

The standards should be incorporated into future teacher training and certification programs. Teachers who have not had the preparation for these standards should not have the opportunity. They should be support to develop these standards before entering into the teaching profession.

Professional teaching work involves high complex sets of skills, intellectual functioning and knowledge that are not easily acquired and not widely held. Conclusions showed that teaching aptitude and attitude towards teaching conjointly predict all the thirteen teaching skills included in the present study significantly higher as compared to their separate prediction for prospective science and Social Study Teachers. These evaluations are used by teacher educators, diets, researchers etc..

4.21 SUGGESTIONS FOR FURTHER RESEARCH

1. The present study is delimited to 200 prospective teachers of colleges of education of Punjab University, Chandigarh. It is, therefore, suggested that the study may be conducted on large sample of more than one University.

2. The present study has included teaching skills, teaching aptitude and attitude towards teaching as variables. It may be broad based by including more variable, like teaching effectiveness, professional commitment, self-esteem, self efficacy, socio-economic status etc., be conducted by the future researcher.

3. The present study includes only Science and Social Study prospective teacher as sample. In future, study may be conducted on sample of prospective teachers of other teaching subjects also.
4. The present study is only based on the sample of prospective teachers of Punjab state. It is suggested that a comparative study on the prospective teachers of two or more state or countries may be conducted.

5. The present study is only based on the sample of prospective teachers of Science and Social Study of colleges of education of Punjab University, Chandigarh. It is suggested that a comparative study on the prospective teachers of rural and urban area, comparative study between male and female prospective teachers, comparative study between age and experience may be conducted.