Chapter 2

THE PROBLEM

2.1 RATIONALE

Distance education has now become popular in the developed as well as developing countries. It has grown in terms of number of students, institutions and academic respectability in the last thirty years. DE has been used for training teachers at different levels for providing pre-service as well as in-service training and continuing education. Brophy and Dudley (1983) compared programme of two groups of teachers. One group was trained through a distance teaching programme and the other by traditional college based approach. The performance of student-teachers was rated by Supervisors, Head Teachers, pupils and by the student-teachers themselves. They came up with important findings and concluded that, though differences between two groups emerged, the distance-trained teachers were as good as the conventionally trained college campus teachers. The main strength of the college trained teachers seemed to be their ability to interact with their pupils whereas the main strength of the distance trained teachers was their class-control and subject knowledge. The evaluation made by them showed that distance teaching did offer a satisfactory alternative and supplement to college based teacher-training. However, the superiority of face-to-face trainees on classroom interaction and those of DE mode on class-control and subject knowledge raises some questions about the differences in the quality of training imparted under each mode.

Allen (1984) compared long-distance students and traditional students for their perception of telecourses. The result of this study supported the concept of higher education delivery by “telecourse” and further indicated that this type of alternative learning system should continue to be made available. Reddy (1987) compared 274 Bachelor of Education students, equally distributed between the correspondence and regular channels of education. Both the streams had the same curriculum, same examination with same papers. The answer sheets were shuffled and evaluation was made which revealed that except one paper, the students of correspondence course had better performance in all other papers as compared to their counterparts in conventional stream. Cavender (1989) studied teaching attitude of alternatively
certified and traditionally certified beginning teachers and found that there was no significant difference in teaching attitude of two groups of teachers. Dumas (1990) compared traditional and DE students to find out effectiveness of distance learning as compared to traditional classroom instruction in enhancing student achievement in anatomy and physiology. The sample consisted of 98 anatomy and physiology course students of traditional course and 98 students of distance course via interactive satellite delivery. Result showed that no significant difference existed in achievement and attitude of students in these two modes. Darter (1990) examined academic achievement, motivation and course completion rates of 26 graduate students in an on-campus and same number in an off-campus distance education classroom situation. He also found no significant difference in motivation, academic achievement and course completion rates in the two modes. Chen Ivan (1991) studied comparative effectiveness of satellite distance and conventional face-to-face delivery methods in promoting teaching and learning. The findings of this study showed that there was no significant difference in promoting teaching and learning through satellite distance method and conventional face-to-face method.

Richard (1993) compared 160 teacher trainees in traditional and 160 trainees in distance mode of teacher education. The result indicated that distance students achieved higher scores than the traditional students on two objective examinations designed to assess achievement. Difference in student learning style, academic achievement measures and gender did not significantly influence achievement. Prasad and John (1993) compared development of skills through teaching practice and attitude of B.Ed trainees of distance and conventional institutions. The findings of their studies revealed that the trainees of DE were in no way inferior to their counterparts in conventional institutions with regard to level of perception, self-preparation and achievement of objectives of practice teaching. Charles (1994) study also supports superiority of DE course over traditional classroom teaching method. The purpose of this study was to contribute to the literature on traditional versus distance education. Therefore, control group (regular) and experimental group (satellite) were taught the same course. The students were exposed to pre-test and post-test. The results of the investigation showed that DE course was more effective. Sahoo and Khan (1998) conducted a study with 102 trainees of Basic Training Institute Level who were undergoing inservice distance teacher training in the state of
Madhya Pradesh with regard to their attitude and reactions towards various components of in-service distance teacher training. In the first phase, open ended interviews were conducted with in-service primary teachers joining distance education programme. In the second phase the questionnaire was administered on a sample of teacher trainees. The findings showed their favourable attitude to printed materials, personal contact programmes and use of modern technology in distance teacher training. Farah (2000) made a comparative study of teaching competencies of the teachers trained through the formal system of education and those through the DE system. The objective of the research was to study the relationship between the presage, process and product variables of teaching competencies of the teachers trained through both the modes. The sample of the study consisted of randomly selected 70 teachers trained through the formal system and other randomly selected 70 teachers trained through distance system of teacher preparation. The relationship between presage process and product variables was investigated using Pearson Product Moment Coefficient of Correlation. The investigator found no significant relationship between the knowledge and the attitude of the teachers trained through the formal mode as well as through the distance mode.

Sharma (2001) conducted a study to find out the strengths and weaknesses of the present teacher education programmes through distance mode. The tools used were structured interviews and two questionnaires – one for faculty and one for students. The responses were received from 14 faculty members and 30 students of Open Universities (OUs), Correspondence Course Institutes (CCIs)/Directorates of Distance Education (DDEs). Data collected with the help of tools were analysed in terms of frequency and percentage of each item of the questionnaire. It was found that all the students enrolled for Bachelor of Education programmes were graduates, but 25% of them were not regular working teachers. In fact, majority of the students admitted by the CCIs were pre-service teachers, although the requirement for admission was teaching experience of one to two years. Performance of students of the Open Universities was comparatively better than those of the CCIs/DDEs. All CCIs/DDEs and OUs had inadequate faculty strength. Jain (2007) conducted a study with the objective to compare the teaching effectiveness of teachers trained through distance mode with respect to sex, type of school and teaching experience. The teaching effectiveness observation scale was developed by the investigator to get the
data related to classroom teaching. The teaching effectiveness observation scale was administered to 75 teachers teaching in secondary classes of Delhi schools to collect data. The study revealed that the teaching effectiveness of teachers with respect to sex, type of school and teaching experience were found to be significant. It was found that less experienced female teachers in private schools exhibited better classroom teaching.

The above debate putting forth evidences against and in favour of the courses through DE mode is inconclusive so long as both positions are empirically established. The charges, against the Distance Education courses that they are providing poor quality training and are nothing but commercialization of education in India, are hypothetical statements and invalid criticisms till they are empirically established. Since, the investigator is a student of education, as a discipline, she was more interested in teacher education courses run through conventional and DE mode. A review of the empirical studies conducted in this area reveals that very few studies have been conducted in India to enable us to draw any meaningful inference regarding effectiveness of the two modes of teacher training. Studies also need to be conducted to compare the two modes on certain relevant variables which might account for their difference. Triggered by the heat of the debate about the effectiveness of DE mode for the training of teachers vis-à-vis conventional face-to-face teaching mode, the investigator was inspired to undertake this study to compare certain personality factors, general intelligence, professional attitude, socio-economic and academic backgrounds of teacher trainees under face-to-face and distance education mode.

2.2 STATEMENT OF THE PROBLEM

The problem investigated in this study was given the following formal title:

“A comparative study of certain personality factors, general intelligence, professional attitude, socio-economic and academic backgrounds of teacher trainees under face-to-face and distance education mode.”

2.2.1 DEFINITIONS OF KEY TERMS

Before going further into the actual investigation, it was considered necessary to explain the meanings and interpretations of the terms used by the investigator. Although, these terms are familiar to a common researcher and a common teacher in education, yet, it was necessary to give the operational definitions of the variables
used in the statement of the problem. The statement of the problem, as given above, involves seven key terms or variables viz. personality factors, general intelligence, professional attitude, socio-economic and academic backgrounds, face-to-face mode and distance mode. As clear from the title of the study, the choice of mode of training (face-to-face vs. distance mode) was the dependent variable and other five variables-personality factors, general intelligence, professional attitude, socio-economic and academic backgrounds were the independent variables.

**PERSONALITY FACTORS**
For a long time, the term “Personality” has been abstracted to account differences and consistencies of human beings. There are a number of popular definitions having different meanings attached to the term personality. Allport (1937) defined personality in a comprehensive manner covering physical, psychological, motivational and moral aspects of human behavior. He defined it as “the dynamic organization within the individual of those psycho-physical systems that determine his unique adjustment to his environment.” Since personality is a comprehensive and elusive psychological phenomenon, psychologists have tried to understand and measure it from different dimensions characterized by quality of uniqueness. In the present study, the investigator has used the concept of personality as given by Cattell (Pandey, K.P, 2007) in terms of source traits. Here, 16 primary source traits of personality are covered by the 16 PF test. The test will be discussed in detail in the next chapter.

**GENERAL INTELLIGENCE**
Intelligence has been defined as a global capacity or a composite of several intellectual skills. According to Wechsler, intelligence is the aggregate or global capacity of the individual to act purposefully, to think rationally, and to deal effectively with his environment. Raven had suggested that in order to act intelligently in any situation, a person needs both the necessary information and the capacity to form comparisons and reason by analogy (Pandey K.P, 2007). In this research work, Raven’s Progressive Matrices (1983) was used to measure the intelligence of teacher trainees of two modes.
PROFESSIONAL ATTITUDE
It has been defined as a state of mental and emotional readiness on the part of professionals to react to any professionally significant situation in a manner that gives first place to the interests of society and the profession, that demonstrates appreciation of the situation’s educational implications, and that indicates ability and desire to cooperate with others toward the solution of the problem involved. In this research work, professional attitude refers to the attitude of teacher trainees in the two modes of training towards teaching as a profession. The Teaching Attitude Scale, used in the present study was a standardized instrument developed by Dr. J. C. Goyal and published by National Psychological Corporation, Agra, India.

SOCIO-ECONOMIC BACKGROUND
According to International Dictionary of Education the term socio-economic status may be defined as: “Person’s position in any group, society or culture as determined by wealth, occupation, education and social class.” The term “socio-economic” status means the background or standing of one or more persons in the society on the basis of both social and financial situation. There are certain factors associated with social and economic well-being of an individual that constantly influence the development of his/her personality. The set of socio-economic variables like nature of family, number of members in the family, education of members, family profession, monthly income, membership of clubs and number of vehicles were considered in the present study to assess the socio-economic background and their weightage scheme is discussed further in chapter 3 of this report. A Personal Data Sheet was developed by the investigator herself to gather information about the socio-economic background of respondents.

ACADEMIC BACKGROUND
Academic achievement, academic background and academic performance are often used interchangeably. Good’s dictionary (1945) defined the academic achievement as “the knowledge attained or skills developed in the school subjects, usually designated by test scores or by marks assigned by teachers or by both.” In the present study, academic background was considered as the overall academic performance of individuals in various examinations throughout their academic career prior to entering B.Ed programme i.e. high school, intermediate, graduation and post graduation. A
weighted combination of scores in these examinations was used as a measure of academic background. The weightage scheme is discussed further in chapter 3.

**FACE-TO-FACE TEACHER EDUCATION MODE**

Face-to-face mode of training is also described by the terms “formal education”, “conventional education” and “regular education”. Face-to-face education is learning within an organized institution with established time schedules, curricula and syllabus taught by the teachers and learnt by the students, followed by a system of examination. In the present study, regular face-to-face mode of training was the system of traditional face-to-face teaching the Bachelor of Education trainees involving the teaching of 40 lessons by students under an expert supervision as adopted by the affiliated colleges of Dr. Bhim Rao Ambedkar University, Agra, Uttar Pradesh.

**DISTANCE TEACHER EDUCATION MODE**

Distance education is described by a variety of labels, such as “correspondence education”, “home study”, “independent study”, “external studies”, “distance teaching” and “open learning”. A more or less generally accepted definition of distance education is proposed by Holmberg (1990) - The term distance education covers the various forms of teaching and learning at all levels which are not under the continuous, immediate supervision of tutors present with their students in lecture rooms or on the same premises but which nevertheless benefit the learners by the planning, guidance and tuition (i.e. tutoring, teaching) of the staff of a tutorial organization. Its main characteristic is that it relies on noncontiguous, i.e. mediated, communication (International Encyclopedia of Education, p-1557). In the present research work, distance education mode was the system of educating B.Ed students at a distance adopted by Uttar Pradesh Rajarishi Tondon Open University (UPRTOU), Allahabad, India. The distance mode of training involved periodic assignments, personal contact programmes and teaching of 40 lessons by the trainees in schools. The B.Ed programme was being run at 10 study centres of UPRTOU spread in various colleges affiliated to the Dr. B.R. Ambedkar University, Agra.
2.3 **OBJECTIVES OF THE STUDY**

Every research study deals with solving a problem of human interest. Therefore, the researcher had a definite purpose in mind. She had certain specific goals to achieve through her research work. Such specific goals or purposes are technically termed as ‘objectives’. Every research study must have some objectives to achieve without which no research can be fruitful. The entire research process is guided by objectives, which have to be explicitly and precisely spelled out by the investigator in advance.

The present study is aimed at achieving following objectives:

(i) To study the personality factors, general intelligence, professional attitude, socio-economic and academic backgrounds of teacher trainees under face-to-face mode of education.

(ii) To study the personality factors, general intelligence, professional attitude, socio-economic and academic backgrounds of teacher trainees under distance education mode.

(iii) To compare the personality factors, general intelligence, professional attitude, socio-economic and academic backgrounds of teacher trainees under face-to-face and distance education mode.

(iv) To study the gender differences on the above variables between teacher trainees of both the modes.

(v) To study the interaction of training mode, gender and marital status on the personality factors, general intelligence, professional attitude, socio-economic and academic backgrounds of teacher trainees.
2.4 **THE HYPOTHESES**

In order to achieve the objectives of this study, an investigator formulated hypotheses. A hypothesis is an informed proposition or speculation about relationship between two or more variables that may be observed concomitantly. Hypothesis may be derived from a carefully formulated model that attempts to explain a class of outcomes. Hypothesis may be formulated to guide the data collection and analysis or else an ‘empirical’ approach may be taken in which data on many variables are collected and many different analyses are attempted, once the data in. Hypothesis may be defined as an intelligent guess or tentative solution for a research problem. The hypothesis may be stated as a simple sentence or a question.

We already know that the teaching experience, maturity level and age of the teacher trainees pursuing DE are at a higher level. Accordingly, following research hypotheses were framed and empirically verified:

(i) The teacher trainees under face-to-face and distance mode of training differ significantly on personality factors.

(ii) The teacher trainees under face-to-face and distance mode of training differ significantly on the level of general intelligence.

(iii) The teacher trainees under face-to-face and distance mode of training differ significantly on the professional attitude.

(iv) The teacher trainees under face-to-face and distance mode of training differ significantly on the socio-economic background.

(v) The teacher trainees under face-to-face and distance mode of training differ significantly on the academic background.

(vi) Male and female teacher trainees of face-to-face and distance mode of training differ significantly on personality factors. This hypothesis was tested in terms of four sub-hypotheses:

(a) Face-to-face and Distance mode teacher trainees differ significantly on personality factors when gender and marital status are controlled.

(b) Male and female teacher trainees differ significantly on personality factors when marital status and training mode are controlled.
(c) Married and unmarried teacher trainees differ significantly on personality factors when training mode and gender are controlled.

(d) There are significant interactions of training mode, gender and marital status on personality factors of teacher trainees.

(vii) Male and female teacher trainees of face-to-face and distance mode of training differ significantly on the level of general intelligence. This hypothesis was tested in terms of four sub-hypotheses:

(a) Face-to-face and Distance mode teacher trainees differ significantly on the level of general intelligence when gender and marital status are controlled.

(b) Male and female teacher trainees differ significantly on the level of general intelligence when marital status and training mode are controlled.

(c) Married and unmarried teacher trainees differ significantly on the level of general intelligence when training mode and gender are controlled.

(d) There are significant interactions of training mode, gender and marital status on the level of general intelligence of teacher trainees.

(viii) Male and female teacher trainees of face-to-face and distance mode of training differ significantly on professional attitude. This hypothesis was tested in terms of four sub-hypotheses:

(a) Face-to-face and Distance mode teacher trainees differ significantly on professional attitude when gender and marital status are controlled.

(b) Male and female teacher trainees differ significantly on professional attitude when marital status and training mode are controlled.

(c) Married and unmarried teacher trainees differ significantly on professional attitude when training mode and gender are controlled.
(d) There are significant interactions of training mode, gender and marital status on professional attitude of teacher trainees.

(ix) Male and female teacher trainees of face-to-face and distance mode of training differ significantly on socio-economic background. This hypothesis was tested in terms of four sub-hypotheses:

(a) Face-to-face and Distance mode teacher trainees differ significantly on socio-economic background when gender and marital status are controlled.

(b) Male and female teacher trainees differ significantly on socio-economic background when marital status and training mode are controlled.

(c) Married and unmarried teacher trainees differ significantly on socio-economic background when training mode and gender are controlled.

(d) There are significant interactions of training mode, gender and marital status on socio-economic background of teacher trainees.

(x) Male and female teacher trainees of face-to-face and distance mode of training differ significantly on academic background. This hypothesis was tested in terms of four sub-hypotheses:

(a) Face-to-face and Distance mode teacher trainees differ significantly on academic background when gender and marital status are controlled.

(b) Male and female teacher trainees differ significantly on academic background when marital status and training mode are controlled.

(c) Married and unmarried teacher trainees differ significantly on academic background when training mode and gender are controlled.

(d) There are significant interactions of training mode, gender and marital status on academic background of teacher trainees.
2.5 DELIMITATIONS

Individuals differ in feelings, drives and motivations. Research in social sciences is a difficult task because it deals with human behavior, which being heterogeneous, is a complex affair. Therefore, it is not easy to generalize it with certainty. However, discovering principles of human behavior is possible, though it is difficult. Every research study is delimited in several ways, because generally it is not possible to study the entire mass of variables associated with a given problem in a single study. The long list of relevant variables cannot be exhausted by a single study. It has to be delimited in terms of population covered, sample selected, scope of generalizations of findings and so on. Therefore, the present study is no exception in this regard and has delimitations which are as follows:

(i) Out of the array of factors affecting students’ choice of learning mode only personality factors, professional attitude, socio-economic and academic backgrounds were selected for investigation in the present study.

(ii) Though, about 14 Open Universities and 130 dual mode institutions are offering DE courses in India, the investigator selected the students of Uttar Pradesh Rajarishi Tondon Open University located at Allahabad, which has its jurisdiction spread over the entire state of Uttar Pradesh (U.P). The sample of DE students was selected from four study centres of Agra, Bulandshahar, Kanpur and Moradabad.

(iii) Out of various Central and State Universities in India, offering B.Ed courses through faced-to-face mode only, students enrolled in affiliated colleges of Dr. Bhim Rao Ambedkar University, Agra, Uttar Pradesh, were taken up for study.

This study was conducted with the above delimitations and constraints in mind. Any generalization should be made keeping in view these delimitations.