CHAPTER ONE

INTRODUCTION

1. EDUCATIONAL DEVELOPMENT IN INDIA

The growth of education in India, especially since the dawn of independence, has been very rapid. "Four out of the five children in the age group 6-11 are to-day at school as compared to one out of three, two and a half decades ago... There were about 8.26 crore students in school in 1972 as against 2.35 crores in 1950-51. At the university stage, the number of students increased by more than eight times and that of colleges more than five times."¹ In Tamil Nadu, the quantitative expansion has been marked. The following table² presents a few statistical details which highlight the development.


2. Tamil Nadu - An Economic Appraisal, 1972 Part II. Statistical Tables, Finance Department, Government of Tamil Nadu, 92-101
Quantitatively, education at all levels has shown a phenomenal development in the post independence period. During the several plan periods, the Government have been spending large sums of money on education. "The Government of India are convinced that education is the key to national prosperity and welfare and that no investment is likely to yield greater returns than investment in human resources of which the most important component is education."¹ Thus we find that there has been a conscious effort to expand educational facilities.

2. **QUANTITATIVE Vs QUALITATIVE EXPANSION**

In spite of all expansion, there is a general feeling that qualitative improvements have not been keeping pace with quantitative expansion. "It has not been possible to raise standards adequately at the secondary and university stages. ... National policies and programmes concerning the quality of education, even when they are well-conceived and generally agreed to, could not be implemented satisfactorily".² Thus

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we find that the problem of improving the quality of education has yet to be solved. It is the primary responsibility of educationists and practising teachers to plan and face this challenging problem.

3. QUALITY EDUCATION

It is but natural to ask ourselves 'What do we mean and understand by Quality in Education? Who are responsible for this? What can we, as teachers, do to improve quality? These are difficult questions faced by educationists all over the world.

Sir Ronald Gould, President, World Confederation of Organisations of Teaching Profession (WCOTF) in his presidential address at Rio de Janeiro has tried to analyse what quality in education means. He says, "Difficult though it may be, arguable though my opinions may be, I must analyse the nature of quality education and how it can be assessed. Hopeful of finding illumination on this topic, I turned to the various text-books, but only found ideas which are contradictory and more attuned to the world of yesterday than to-day. So I turned to newspapers and magazines and found much implied about quality education but little stated in definite terms. ... There are three essentials for quality education: (1) a good physical environment (2) enough teachers and (3) good teachers."¹ And

he calls upon all teachers - "Thou shalt make Teaching a Profession".

The Fourth Indian Year Book of Education includes reflective and informative essays by leading Indian educationists, on factors affecting quality in education. Discussing about the "Practical Problem of Secondary Schools" Mrs. Margaret Ahmadi has drawn the readers' attention to the hold that bureaucratic red tape, obsession with routine, and lack of imagination still have on the whole educational process and how they cause frustration to the small minority of enthusiastic, conscientious and imaginative workers.\(^1\) As a practical teacher, she has discussed about curriculum, textbooks, examinations, size of the classroom, school facilities, teachers and teaching methods, and inter-school co-operation as factors affecting quality in education. That these are important factors is amply borne out by the fact that the year book includes also separate chapters on each of these aspects.

4. **TEACHING - DEFINED**

"Teaching is a complex activity carried on in the complex situation of the school, by complex organisms, human beings (teachers) directed towards more complex organisms (students), who are constantly undergoing complex changes."\(^2\) Teaching means many different things; the teaching act varies from person to person and from classroom to classroom. Dr. Shib K.Mitra, after


analysing several definitions and explanations of teaching, has concluded that they fall in three broad categories: (i) it is imparting knowledge or skill (ii) it is doing anything and everything that may lead to learning and (iii) it is a social act of influence. ¹ The variety of definitions, classifications and the complexity of the function clearly indicate that no amount of research in understanding teaching can be considered superfluous.

Teaching and learning involve classroom talk. But mere communication of textual matter is never accepted as quality teaching or learning. Swami Vivekananda says, "Education is not the amount of information that is put into your brain and runs riot there, undigested all your life. We must have life-building, man-making, character-making assimilation of ideas."² The contacts between the teacher and the pupils, the interactive processes, the development of cordial relationships are more vital.

Edmund Amidon and Elizabeth Hunter³ try to build up a strategy for improving teaching by identifying seven teaching activities: Motivation, Planning, Informing, Leading Discussion, Disciplining, Counselling and Evaluating.

Marie M. Hughes' study⁴ "Development of Means for the assessment of the Quality of Teaching" is basically a study on

teacher-pupil interaction. It begins with classroom description before attempting teacher evaluation. Teaching is thus interpreted to mean teacher-pupil interactions leading to acquisition of knowledge, skills and attitudes.

Smith¹, for his study 'The Logic of Teaching', defines that "Teaching is essentially a system of social action, involving an end-in-view, an agent, a situation and two sets of factors in the situation - one set over which the agent has no control and one set which the agent can modify with respect to the end-in-view.

/ Passi. B.K.² analysing the skills involved in becoming a better teacher lays emphasis on the following: Writing Instructional Objectives, Introducing a lesson, Fluency in questioning, Explaining, Illustrating with examples, Stimulus variation, Silence and non-verbal cues, Reinforcement, Increasing pupil participation, Using black-board, Achieving closure. He advocates micro teaching exercises for practicing and improving the skills.

5. **IMPORTANCE OF CLASSROOMS**

Quality in education is affected by several factors. As pointed out earlier, the teacher and what he does inside the classroom are significant in this context. Hence in order to

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bring about qualitative improvement in education, it is important to study the teaching-learning procedures as they occur in the classrooms, the physical and psychological conditions as prevailing in the classrooms, the teacher behaviour in the classrooms.

The Third Indian Year Book on Education, published in 1968, is devoted exclusively to the review of educational research in India. It is encouraging to note that several studies have been undertaken in the areas of (a) The psychology of learning, (b) Child and adolescent development (c) Curriculum (d) Methods of teaching school subjects, (e) Measurement and evaluation and (f) Teacher education with a view to improving quality of education. Commenting on Research in Methods of teaching school subjects, N.P. Pillai observes, "The aim of research on teaching has necessarily to be two fold: (i) to build a theory of classroom behaviour of teachers (i.e.) of teaching methods and (ii) to conduct empirical studies which help to identify and relate relevant variables, thereby substantiating or questioning hypotheses that arise from the theory" 1

Adaval.S.B. discussing the research work in Teacher Education says that these studies can be classified into four main categories on the basis of the aspect of investigation: (i) attitudes, (ii) economic, social and personal problems of

teachers, (iii) qualities required for success and actually found in school teachers; selection and evaluation of school teachers and student-teachers, and (iv) main interests and pursuits of teachers. The chapter indirectly points to the various factors which contribute towards qualitative improvement in Education.

That the classroom is the focus of all educational activity needs no elaboration. The success (or failure) of any educational reform finally rests on the teacher, inside the classroom. This has been realised in Indian Educational field and the Centre of Advanced Study in Education has rightly taken up this as an important direction of research. In his foreword to "Communication in Classroom" Ishwerbhai J. Patel, Chairman of the Gujarat State Board of Teacher Education, has said, "The major problem in the area of school education is to influence the classroom instructional process. It is only when the instructional process is improved, the benefits of new curricula, new text-books, and other innovative ideas will bear fruit. The communication process of the teacher has been mainly found to be responsible for the proper educational growth of the child."

Thus we find that qualitative improvement in education is affected by a diversity of factors. It is also realised that what happens inside the classroom has a direct bearing on the

quality and standards in education. The classroom is the key place and the study of all aspects of classroom teaching is very essential for furthering the cause of education.

Classrooms all over the world are perhaps the same in certain aspects, the teacher, the pupils and the physical components. Yet it is easy to understand that a great deal of variance is also present in how the teacher and the pupils interact and in the physical necessities provided. The investigator has come across classrooms without blackboards, or classrooms without proper seating facilities for children or classrooms without proper lighting and ventilation. Further the role played by the teacher is also influenced by the culture and traditions of the country. Though innovative trends are perceptible in certain pockets of area, it may not be possible to claim that an average teacher has knowledge about it or has successfully experimented with these ideas. A study made under classroom conditions as they exist in U.S.A. or U.K. cannot be strictly compared to a similar study in India, because of the variance that may be present in the Teacher, the pupils and other factors.

6. NEED FOR STUDYING CLASSROOMS

In order to bring about effective improvement in the quality of education, it is therefore necessary to focus attention on the classrooms - what teachers and pupils do in classrooms.
There are a number of things to look for in the classrooms and they can be carefully and systematically observed. Such observations lead to the description of classroom climates. Based on such systematic observations, it is possible to evaluate and modify the behaviour of teachers and pupils so as to increase the efficiency in the tasks performed.

"Although general use of observation systems in research and teacher self-evaluation is a relatively recent development, systematic observation appeared in educational literature as early as 1935 with Wrightstone's study of schools in New York using "Newer Practices". The many educators who have investigated and developed observational approaches include: Anderson, Withall, Hughes, Flanders, Amidon, Ober, Brown, Galloway, Medley and Nitzel, Ryan, Gallagher and Ascher, Combs and so on."¹

While such studies have gained popularity and importance in U.S.A. or U.K. or other countries, a beginning has just been made in India to investigate classroom climate. This is brought out by the fact that the Indian Year Book of Education analysing the research activities does not include any reference on this field. There is therefore a void and studies of this type are needed.

7. **THE PROBLEM**

The classroom is the place where worthwhile contacts between the teacher and the pupils take place. These contacts along with the teacher behaviour and his teaching strategies influence the instructional process. It is only when the instructional process is improved, the benefits of the new curricula, new text-books and all other resources will bear fruit. The communication process of the teacher needs special study because it is directly related to the teaching-learning process. The interaction between the teacher and the students creates an atmosphere of freedom or restriction, conductive or otherwise for learning. Thus there is need for studying the classroom climate from different points of view: (a) the teacher behaviour and how it affects the climate (b) the student behaviour and (c) the interaction between the teacher and the student. The present investigation attempts to study the classroom climate in secondary schools.

The main objective of the investigation is to study the various factors that go to build up the classroom climate, and develop a suitable method for assessing the classroom climate so that teachers and educators may get a feedback from their class teaching, which in turn may help in the improvement of the instruction process. The following sub-problems have been identified and taken up for study.
1. What are the various factors which go towards building up a desirable classroom climate?

2. How are these factors inter-related?

3. How can these factors be combined to yield a reliable, simple and useful classroom climate index?

8. DEFINITION OF TERMS

The term 'Classroom Climate' is used in this study to refer to conditions prevailing or developing in the classroom as result of the teacher-pupil interactions during teaching-learning situations.

John Withall was the first to associate the word 'climate' with classroom groups and he developed a technique for the measurement of 'Social-Emotional Climate' in the classrooms.¹ Climate is considered in this study, to represent the emotional tone which is a concomitant of interpersonal interaction. The assessment is made on the basis of observation of teacher behaviour and student behaviour in the classroom.

Similarly, Anderson, Flanders, Lippett and White, and many others have successfully studied classroom climate on the basis of observation of classroom behaviour of teachers and students. An analysis of their studies reveals that the words classroom climate refer to generalised attitudes towards the

teacher and the class that the pupils share in common in spite of individual differences. The word *climate* is merely a shorthand reference to those qualities which consistently predominate in most teacher-pupil contacts and pupil-pupil contacts in the presence or absence of the teacher.¹

Prayag Mehta has also emphasized the fact that the best way to study classroom groups is to make an intensive study of the teacher behaviour and the pupil behaviour in the context of the classroom. "Every-day many pupils come and take their seats in classrooms, sometimes housed in tents, huts, and even under trees. They come to learn and we teach. We teach them reading, writing, arithmetic, history, the different sciences, crafts and many other subjects. We talk and the pupils listen or we read from text-books; we write on the black board and they see; when we ask questions, pupils raise their hand and one of them replies; sometimes there is noise in the class and we ask some of the pupils to stand on their seats. There are moments of absolute silence, broken by peals of laughter. These and many other similar things happen in a classroom. This is classroom behaviour."² These build up classroom climate.

The above comments indicate that the classroom climate is a generalized concept which can be understood from the behaviour


of teachers and pupils in the class. For the purpose of this study, the term 'classroom climate' is taken to mean the general, academic and psychological atmosphere that prevails in the classroom as an outcome of the behaviours of the teacher and the pupils and their interactions.

The term "secondary school" refers to schools where pupils of age group 14-16 study in classes 9 to 10 or 11. These are the terminal classes of the high school course and at the end of the course, the pupils take a common examination conducted by the State Board of Secondary Education. This examination is considered for entrance into the college or vocational courses or for job entrance.

It is obvious that teachers have their own individual characteristics which distinguish one from another. Pupils exhibit a lot of individual differences. Classroom procedures adopted by teachers vary. Hence there is considerable chance for the classroom climate also to vary. The present investigation is directed towards exploring the classroom climate in secondary schools with special reference to some selected variables pertaining to the behaviour of teachers and pupils in the class, with the ultimate objective of providing an easily understandable feedback to the teachers who may like to use it. Researches by Flanders and others indicate that qualitative improvement in the teaching-learning process is possible through effective feedback.
9. **Assumptions Underlying the Investigation**

Any investigation has ultimately to be based on certain assumptions which provide the working basis for the study. The present investigation is based on the following assumptions:

1. The classroom climate is a group phenomenon.

2. Teacher behaviour, pupil behaviour, their interactions are the most important factors in creating the classroom climate.

3. A careful study of the selected factors can contribute to evolve a valid and reliable index of classroom climate.

4. The observed teacher-behaviour, pupil behaviour and their interactions are representative of the respective total behaviours.

5. Better classroom climate will lead to better learning.

These assumptions have been made following the pattern of assumptions implied in John Withall's study of "The development of a technique for the measurement of social-emotional climate in classrooms".\(^1\) It differs from that of John Withall's in one respect. The present investigation attempts to study pupil behaviour and concomitant factors besides teacher behaviour as factors affecting classroom climate, whereas John Withall assumes that "the teacher's behaviour is the most important single factor in creating climate in the classroom."

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1. John Withall, op.cit.
10. LIMITATIONS

The present investigation has been made with particular reference to secondary schools in the district of Coimbatore. This geographical limitation was necessary because of two reasons: the first being the vastness of the geographical area of the state of Tamil Nadu and the second being time factor. However the sample has been so chosen as to include different types of secondary schools that exist in the State, like schools managed by the Government, the Municipality and Private bodies.

A study of this type cannot successfully be conducted without the co-operation of the teachers concerned and headmasters. The study involves observation of teacher behaviour in classroom setting. A few teachers were rather reluctant and felt embarrassed at a request to observe their classes. There was no option but to leave them. This has been a limitation in the present study and it is very difficult to predict how the results are biased by this. However such cases were only few in number.

No other limitations were imposed on other variables as far as possible except those inherent in the tools and the procedures adopted.

11. ORGANISATION OF THE THESIS

The thesis is presented in five chapters. In this chapter, the problem has been introduced and the need for the study has been established.
The second chapter presents a review of studies conducted in India and other countries, which may have a bearing on the present investigation. It also contains a review of a few systems of observation suggested for observing classrooms and teacher behaviour.

The third chapter details the procedure adopted in this investigation. The development of the various tools used in the study, their reliability and validity are discussed in this chapter.

The fourth chapter presents the results of the investigation. This chapter is divided into three parts. Part I discusses the six primary variables which form the basis for the development of the Classroom Climate Index. Part II presents the development of the two models, the Cross-product Model and the Additive Model, used for computing Classroom Climate Index. Part III contains the results of differential and correlational studies and other miscellaneous findings.

The last chapter gives a summary of the findings and recommendations that flow from them.

The bibliography is presented next.

The appendices include copies of the various tools used in the study, computer programmes used and an illustrative calculation of reliability of observation.

The tables, giving full particulars of classification, are presented separately at the end of the thesis.