

CHAPTER ONE

Introduction

- 1.1 Introduction
- 1.2 Concept of Classroom Environment
- 1.3 Elements of Classroom
- 1.4 Aspects of Classroom Environment
- 1.5 Assessment of Classroom Environment
- 1.6 Achievement
- 1.7 Researches on Achievement
- 1.8 Need and Significance of the Study
- 1.9 Statement of the Problem
- 1.10 Objectives of the Study
- 1.11 Hypotheses of the Study
- 1.12 Delimitations of the Study

1.1 Introduction

Education is a process of human enlightenment and empowerment for the achievement of a better and higher quality of life. Sound and effective system of education results in the unfoldment of learner's potentials, enlargement of their competencies and transformation of their interests, attitudes and values.

Education in India has continued to evolve, diversify and extend its reaches to longer number of students from different socio economic status. In addition to provide deeper knowledge and understanding in the subject areas, it is expected to promote socio cultural identity.

The National Policy on Education (1986) comments: In the Indian way of thinking a human being is a positive asset and a precious national resource which needs to be cherished and developed with tenderness and care.

The National Education Commission (1964-66) commented :

“The destiny of India is being shaped in its classroom”. Here the term the classroom has a broader meaning encompassing the learners' environment. Classroom is a place where students get together, share instructions and social interaction which is fundamental to shape their habits, attitudes and interests and are like the hidden curriculum. The classroom climate is therefore an essential input into the building of an effective

learning environment. It could act as a catalytic agent in the promotion of achievement of the learners. In the context of providing "Quality Education for all" environment existing in our institutions and classroom has a crucial role.

1.2 Concept of Classroom Environment:-

Environment:-

Environment is anything immediately surrounding an object and exerting direct influence on it. Environment is an external force which influences us.

According to Goods "Environment is a general term designating all the objects, forces and conditions that affect individual through such stimuli as he is able to receive."

Classroom Environment:-

In the dictionary of education Goods refers to the sum total of all the physical, social, emotional and mental factors that contribute to the total teaching learning situation as classroom environment. Flander (1964) view the climate of a class is usually reflected through the activities performed in the classroom. In this context classroom climate may be said to be the general characteristics of a class which is the outcome of interactions among the teachers and pupils in teaching learning situations. There interactions

create an environment that affects both attitude and achievement of students. These interactions occur in a classroom between the teacher and pupil on the one hand and among the pupil on the other.

The theoretical basis of the concept of classroom climate has been worked out by several social scientists and educationists.

The following characteristics of classroom may be described

- A group that comes together for the purpose of learning.
- A group where the participants are randomly selected and required to be group members.
- A group where formal leadership is given by law to one of the group members.

“Classroom Environment”, the term is used to refer to the students’ perception of the psycho social characteristics of their classrooms. Those characteristics are:

- **Personalization:** It is the emphasis on opportunities for individual students to interact with the teacher and concern for the personal welfare and social growth of the individual.
- **Participation:** It is the extent to which students are encouraged to participate rather than being passive listeners.

- **Independence:** It is the extent to which students are allowed to make decisions and have control over their own learning and behaviour.
- **Investigation:** It is the emphasis on the skills and processes of inquiry and their use in problem solving and investigation.
- **Differentiation:** It is the emphasis on selective treatment of students on the basis of ability, learning style, interests and rate of working.

Modern behavioural sciences of Kurt Lewin have been constructed on dual premise that the socio psychological environment or climate of a work group strongly influences outcomes and that this climate is influenced by the group leadership.

The school exists for the modifications of the behaviour of the student and because the environment is a determinate of behaviour it is desirable that it be manipulated to achieve the desired goal.

1.3 Elements of Classroom:-

Elements of classroom include:

- **Multidimensionality:** This refers to the large quantity of events and tasks in classrooms.
- **Simultaneity:** This refers to the fact that many things happen simultaneously in classrooms.

- **Immediacy:** This refers to rapid pace of classroom events.
- **Unpredictability:** This refers to the fact that classroom often take unexpected turns.
- **Public ness:** This refers to the fact classrooms are public place and what events, especially those involving the teacher are often witnessed by a large portion of students.
- **History:** This refers to the fact that classes meet for 5 days a week for several months and thus accumulate a common set of experiences, routines and norms which provide a foundation for conducting activity.

1.4 Aspects of Classroom Environment:-

Cheng (1994) describes two aspects of classroom environment

- Physical
- Psychological

The physical environment of the school and classroom includes facilities, spaces, lighting, ventilation provides safety and comfort to promote learning and student development. The psychological environment often refers to the social quality of the school and classroom especially the

aspects related to perceptions and feelings of social relationship among members.

The teacher's behaviour pattern sets the pattern of pupil's behaviour in a classroom and tends to create an atmosphere which is described as classroom climate. Teacher's classroom behaviour can be classified into two categories-Dominative and Integrative. When a teacher talks, commands, restricts pupils' freedom to talk, he is dominative. When he allows pupils to talk, ask questions, accepts their ideas and stimulates their participation in class activities, he is integrative.

Hussen, The International Encyclopedia of Education, defines the term, psychological environment is the climate or atmosphere of the class as social group that potentially influence what students learn.

1.5 Assessment of Classroom Environment:-

Study of classroom had always deserved the attention of research workers and, as a result, it was in the late 1930's they became interested in analyzing classroom interaction. One of the earliest approaches to the analysis of teaching behaviour was that used by H.H Anderson. He was interested in developing reliable technique for the "measurement of domination and of socially integrative behaviour in teacher's contacts with children."

Although classroom observation has been there in our training programme for long time now, objective and reliable scales of observation are of recent origin. Traditional observation relied on subjective estimates and could not be quantified. The observational scale should not only serve the purpose of observation but should also have mechanical devices against subjective examination by the observers.

Classroom observation is a systematic observation in a set of procedure which uses system of categories to code and quantity classroom behaviour of teachers and students. These procedures require that observed behaviour be classified by the use of non-evaluate relatively objective set of categories which describe specific behaviour or actions.

The Classroom Environment Study (CES) was a cross national observational study of classroom teaching and school learning conducted under the auspicious of the International Association for the Education of Educational Achievement (IEA) during the years from 1981 to 1991. The CES has two primary aims. First it was intended to identify the similarities and differences in teaching practices and the conditions of learning as they occurred in a variety of countries. Second it was intended to identify those particular aspects of the classroom environment that are likely to influence students achievement and attitude.

Researches on classroom environment have taken into account the teaching learning process involving interactions between teacher and students.

Most classroom environment research has involved students in western countries. The field originated in the United States with pioneering work using the Learning Environment Instrument (LEI) and the Classroom Environment Scale (CES); that was followed by work in the Netherlands, with the Questionnaire on Teacher Interaction (QIT) and in Australia with the Individualized Classroom Environment Questionnaire (ICEQ). Although those instruments have been used and validated in a number of countries many of the questionnaire overlap in what they measure some contain items that might not be pertinent in current classroom settings.

1.6 Achievement:

Achievement is the end product of all educational endeavors. The main concern of all educational efforts is to see what the learner achieves. Quality control, quality assurance and total quality management of achievement have increasingly gained the attention of researchers in education. After exploring the concept of achievement in the cognitive, affective and psycho motor aspects of human behaviour, researchers have probed further and have attempted to understand the black box of achievement.

According to Good, Achievement is the knowledge attained or skills developed in the school subjects usually designated by test scores or by marks assigned by teachers or by both.

Achievement is a general term for the successful attainment of some goal requiring:

- A certain effort
- The degree of success attained in a test
- The result of a certain intellectual or physical activity defined according to individual and/or objective prerequisite i.e. proficiency.

Academic achievement is of paramount importance, particularly in the socio economic and cultural context. Obviously in the school great emphasis is placed on achievement right from the beginning of formal education. The school has its own systematic hierarchy which is largely based on achievement and performance rather than ascription or quality. Thus the school tends to emphasis achievement which facilitates, among other things, the process of role allocation for the social system. The school performs the function of selection and differentiation among students on the basis of their scholastic and other attainments and opens out avenues for advancement again primarily in terms of achievement.

A considerable number of students from school go to colleges and institutions of higher learning. It is very important to ensure that such students acquire the requisite competence so as to benefit most out of higher education. Setting the stage for the achievement of the youth is thus a fundamental obligation of the educational system at the school stage.

David McClelland (1961) believes that in the course of development individual acquires a need for achievement and he has conducted researches to demonstrate the degree to which this need varies among individuals.

Atkinson (1964), hypothesizes, that difference in the strength of the need for achievement can be explained by postulating a need to avoid failure. Through experimentation Atkinson and George Litwin (1960) showed that success oriented individuals are likely to set personal goals of intermediate difficulty, whereas anxiety ridden person set goals that are either very low or very high. Atkinson (1964) believes that the tendency to achieve success is influenced by the probability of success and attractiveness of achieving it. Weiner (1950) proposes that many adolescents who seek counselling because of academic performance problems express resentment about parental demands, which they cannot meet. If the resentment is strong enough, the high school student may retaliate by deliberately earning low grades.

Academic success depends upon persistent effort and self confidence. However at some point they have to be supplemented by effective cognitive skills.

There are several methods designed to measure an individual's achievement against a specific achievement norm, e.g. Achievement Batteries, Achievement Quotient, Thematic Apperception Test and so on.

1.7 Researches on Achievement:-

The effectiveness of any educational system is gauged to the extent the pupils involved in the system achieve, whether it is in cognitive, co native or psychomotor domain. In general terms, achievement refers to the scholastic or academic achievement of the students at the end of an educational program. To maximize the achievement within a given set up is therefore the goal of every educationist - a teacher or an educational administrator.

Research has come to our aid by looking into what variables personal, home, school, teacher, etc. promote achievement and what are deterrents to it. It has been thus indicated that a good number of variables such as personality characteristics of the learners, the socio economic status from which he comes, the organizational climate of the school, curriculum planning etc. to mention a few, influence achievement in different degree. These variables are generally referred to as correlates of achievement and

others who are involved in the task of helping students to achieve better would like to have a knowledge of the extent of these correlates exert on achievement. Further a synoptic view of the researchers did would be of utmost importance to the educational researcher to enable him to explore greater depths in this rather important area of achievement.

1.8 Need and Significance of the Study:-

The main function of educational research is to improve the educational procedure through the refinement and extension of knowledge. Each research is taken to improve the existing educational process and systems.

The classroom is the basic structural unit of our educational system and environment plays a crucial role in the all round development of child. Classroom environment includes teaching-learning process, teaching learning material and teacher-pupil interaction. This environment is where a wealth of interaction occurs among students, teachers, peers and curriculum and is where learning takes place. These interactions create an environment that affects achievement of students.

In India each and every educational policy emphasizes on the good and proper educational environment to obtain better achievement from learners.

This study tries to investigate whether the classroom environment is related with the achievement or not. The study focuses on the relationship between achievement of learners and classroom environment provided to them.

1.9 Statement of the Problem:-

“Study of Classroom Environment and Achievement in Science of Grade VIII Students”

1.10 Objectives of the Study:-

This study is an attempt to explore the relationship between classroom environment and achievement in science. Following specific objectives were kept in view while conducting this investigation:-

- To study the classroom environment.
- To assess the achievement of boys and girls in science studying in grade VIII.
- To study students' perception of classroom environment.
- To compare perceptions of high and low achievers.
- To find the relationship between classroom environment and achievement in science.

1.11 Hypotheses of the Study:-

The objectives stated above helped the investigator to formulate the major hypotheses of the study. They are presented here in the null form.

H₀1 - There will be no significant relationship between classroom environment and performance of students of grade VIII in science achievement test.

H₀2 - There will be no significant relationship between classroom environment and performance of students of grade VIII in half yearly exam.

H₀3 - There will be no significant difference between achievements of boys and girls of grade VIII in science.

H₀4 - There will be no significant difference between achievements of the students of grade VIII in science achievement test and half yearly exam.

H₀5 - There will be no significant difference between perceptions of boys and girls of grade VIII about classroom environment.

H₀6 - There will be no significant difference between perceptions of high achievers and low achievers of grade VIII about classroom environment.

1.12 Delimitations of the Study

- The study is delimited to secondary schools of Bhopal.
- It is further restricted to students studying in grade VIII.
- The study is delimited to the achievement in science subject.
- The sample includes 70 students consisting of 41 boys and 29 girls.