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CLASSROOM TEACHING

K. V. Ramana



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CLASSROOM TEACHING

This volume constitute of various factors of learning environment in the class room, Learning environment influences the learning of the child in the classroom. It includes factors which improve the performance of the child. Some facts contributes for maximizing the learning of the child.

The modern class room has been changing now to establish conducive improvement to maximize the children learning. The techniques and ICT make the student to lead for self learning to enrich the knowledge the volume understand the readers to different learning improvement setup in schools under different managements also.

This volume is intended to serve as a reader for both graduate and post graduate students of Education and researches of engaged in its empirical investigations in the university and institutes of higher learning.

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Chapter-1

INTRODUCTION

1.1 EDUCATION

The term Education is derived from two Latin roots i.e., “E” meaning ‘out of’ and ‘Duco’ meaning ‘to lead’ or ‘to draw out’. Thus Education is a process of drawing out the best which is hidden in a child. It is also a process of all round development of the personality of a child which enables him to manifest his efficiency and efficacies leading him toward a path of perfection and excellency in work. Therefore, Education is the only instrument to build up excellent personality i.e., Integrity of human being his physical, vital psychic being. Thus the entire process of education helps a child to realise his own self and the inner most principles of Unity of knowledge and activities. It is thus, a self realisation, process of human life and the harmony of human existence i.e., the wholeness of individuality in terms of intellectual, spiritual, emotional, social and physical aspects of human being. This leads him towards his harmonious and balanced growth of personality.

The field of Education provide him full opportunities to express his personality in the way he desires to function. Therefore, it is desirable that every child should be given maximum opportunities to develop his personality in such a way that he can function well with his utmost capacities to further the interests of the society as well as the nation. Thus Education is a long term national investment in human being.

Now, India is moving toward 21st Century. National policy on education was announced in 1986. It envisages common educational structure i.e. 10+2+3 which has now been accepted in all parts of the country.

The policy also envisages that the system of education should produce self assured, more productive, more capable and more thinking type of citizens. For achieving this the foundation has to be laid at the primary stage of education.

1.2 IMPORTANCE OF THE PRIMARY EDUCATION

In the educational carrier of child the primary education plays a crucial role. It lays foundation for the development of right type of attitudes, values and interests. It puts the foundation strive for the personality development of the child.

For this the following objectives felt essential for the primary stage of education.

- to acquaint the students with the 3 Rs.
- to develop in them the tools of learning and thinking
- to provide the basic knowledge and skills that enable them to lead a decent and useful life.
- to hand them over the keys of the gates of learning to inculcate in them the love for learning.

Eswara Bai Patel Committee had recommended the following specific objectives for primary stage (classes I - VIII)

1. Acquisition of tools of formal learning, namely literacy, numeracy and manual skills.
2. Acquisition of knowledge through observation study and experimentation in the areas of Social and Natural Sciences.
3. Development of physical strength and team spirit through games and sports.
4. Acquisition of skills for planning and executing socially useful productive work with a view to making education work based.
5. Acquisition of skills of purposeful observation.
6. Acquisition of habits of cooperative behaviours within the family, school and community.
7. Development of aesthetic perception and creativity through participation in artistic activities and observation of nature.
8. Development of social responsibility by inculcating habits of appreciation of the culture and life styles of person, of other

religions, region and countries and readiness to serve the weaker and deprived.

9. Development of the desire to participate in productive and other processes of community life and to serve the community.

It is provided a primary school to everyone kilometre (Quantitative development) in the country so as to meet the educational needs of the people. Now the stress is shifted on the qualitative development of primary education.

Improvement of quality at the primary stage of education is the need of hour and the following measures are proposed for qualitative improvement.

- raising the minimum qualifications of primary teachers.
- providing professional training to teachers- preservice - inservice and extension.
- improve working and salary conditions of the teachers
- improve the curricula, text books and teaching method.
- providing such incentives as the mid-day meals, free uniforms and text books.
- formation of school improvement committee and Advisory committee.

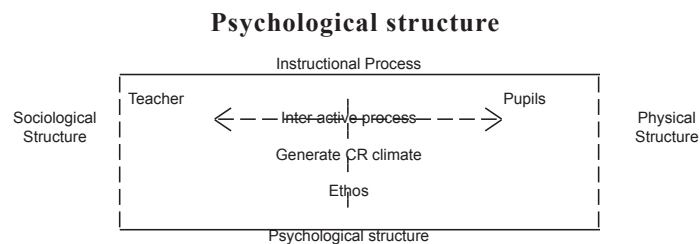
The National policy on Education 1986 on UEE suggested the following programmes at primary level.

- providing educational facilities for all.
- ensuring enrolment for all
- ensuring the successful completion of primary stage by all
- ensuring retention of all
- ensuring the quality of education for all through school improvement.
- The aim is to bring all the children to the school so as to encourage them to attend the school regularly upto the age of 14 years.

The process of all round development of the child takes place in the class rooms which should be convenient to the child to achieve the educational goals. The success of primary education depends on the classroom environment and the classroom interaction.

1.3 CLASS ROOM

The formal classroom system is a Human endeavour. The teacher's responsibility is helping pupils to acquire full knowledge which lead them towards perfection. The following diagram explains the fundamental structure of a classroom.



A famous philosopher John Wesley said,

Do all the good you can,
By all the means you can,
In all the ways you can,
In all the places you can,
At all the times you can,
To all the people you can,
As long as ever you can,

Meaning and concept of classroom defined by various researchers as following :

“Destiny of India is being shaped in her classroom”

“Classroom is a net work of interactions”

“Classroom confirms to a unique group”

“Classroom is a place o socio-cultural miliu”

“Classroom life is full of life processes”.

“Classroom is a place where various activities are going on where interactions take place social situations are enhanced and norms are build up in instructional situations”.

Different Educationists describes classroom life as follows :

Philip Jackson says that “Classroom is a place where pupils spend their most formative period of their life time. It is also a place where tests are failed and passed, where amusing things happen where new insights are stumbled upon and skills acquired. But it is also a place in which pupils sit an listen, wait and watch, raise their hands, pass out papers, stand in a line and sharpen pencils.

Jhon Dewey a Philosopher says that. “Class room consists of those conditions that promote or prevent, stimulates or checks the characteristic activities of the pupils”.

“One can also derive through research and experiments the concept as.”

“Classroom is a place where a child consolidates his learning, find support for his actions, to correct his ways to learn, to expect certain things from others to share with others to feel responsible and secure”.

1.4 CHARACTERISTIC OF CLASSROOM

As stated classroom as a formal system has its own personality. Therefore, it has distinct/unique qualities and special features to manifest their own special pattern of physical and mental traits/features to function well in the various classroom programmes and procedure. Hence classroom group has its own processes and ways of learning. These processes of teaching and learning can be organized and developed through teachers transactions in classrooms. Thus, the major characteristics / features / traits of the group of pupils differ from class to class and that can be identified through observations and examining the actual instructional processes in the class room.

In most of the class rooms the pupil behaviour in learning process remains purposive in receiving the knowledge of various subjects from teachers. Therefore, the most common characteristics of the classroom are found as described below.

- 1 Learning is the goal :** It indicates pupils wish and desire for learning. It has a value to achieve a level of proficiency in a learning task. Therefore, the classroom groups decide their learning goals which relates with their standard of performance in the class.
- 2 Participative classroom group lead toward the goals :** If the group of pupils find the learning situations are meaningful then they will respond continuously in the interactive processes of the classroom. This develops participative culture/behaviour in the class.
- 3 Classroom group of pupils select / elect / appoint their own leader in the class:** The leadership of the class is accepted by the group of pupils with the help of the teacher. Usually first, the leaders in the class who can influence the classroom group etc. in terms of personality i.e. appearance, physique, intelligence and his power of communication.

Secondly, the leader who can initiate the learning task and help the teacher in the development of the instructional process. Thirdly, the leader who is popular by his/her own capabilities and skills.

He/she knowing his good performance and have a consistent' good record of his work. Fourthly, the leader who is capable uses his authority to control the classroom group behaviour in maintaining the class discipline.

- 4 Classroom group of pupils develop relations and inter-relations among them. The interactive situations encourage the ideas of pupils, leading them toward the common goals. Here they develop feeling of oneness, dependence on one another, and sense of sentiments for the classroom group i.e., their positive attitude/behaviour toward class enhances their social as well as learning situations. This develops in them the oneness to different tasks, activities, interactions and following up the norms of the class.

School is the second institution after the family to nurture the pupils cognitive, affective and psychomotor domain and build up his personality, conduct and behaviour. Therefore, there is a close relationship between a learner, the teacher as leader in a school.

For this the school should provide optimum environment and conducive classroom climate providing them various teaching-learning activities in the classroom, so that they get motivated toward school and classroom to learn well in instructional situations. The school and classroom can play a nurturing role in the sense that the classroom activities are planned to understand pupils desires, expectations and the demands of learning various subjects. Therefore, classroom activities should be enhanced and planned to develop positive attitude in pupils for the school to help them to perform well in the classrooms. Thus pupils in own classrooms need freedom, sympathy, love and affection from the teachers. Therefore it is the utmost responsibility of a school to provide them maximum facilities in the school environment. Ultimately results into developing their physical and mental strength.

1.5 TEACHER-PUPIL INTERACTION IN CLASSROOM

Interactions occur within human setting. It is an effect of one's mind processes upon each other. It is also the mutual action i.e., one person acts on the another and the other responds to him. Therefore,

it is a two way process. The Human life process depends on human interactions. In the democratic form of social setup every body has freedom of expression and thought to act with one another. If the human interaction is more open, lively and active their human processes will be more dynamic, innovative, progressive and productive.

In classroom, the teacher communicates with the pupil and group to pupils which has a significant impact on the classroom group dynamics. Thus communication is the main base for developing interpersonal relationships and accepting and encouraging interaction promote cognitive and emotional growth of pupils. Therefore clarity of thought and communicating to another is important for the instructional process in the class. The teacher should express his ideas in the words understandable to the groups of pupils in a correct sense. In the Flanders interaction category system, the teacher should translate the pupils response and put questions into the words understandable to them so that they respond well in classroom situations. The interactions enhances the pupils performance. The democratic leadership styles of a teacher (allow the group of a teacher) allow the group of pupils to participate in the process of instruction and also in the making decisions in classrooms. Thus a system of interaction analysis have been developed by Ned A. Flander (1974) which is known as FIACA to help the teachers to assess the patterns of interaction in their classes.

1.6 ORGANISATION WITHIN CLASSROOM :

The size of the room and its overall shape will need to be taken into account when organising the learning environment. Many teachers in primary schools would dearly love to be able to have their own area such as maths reading or library corner, but are constrained by the lack of space, resources and often, facilities such as running water. Having said that even in the smallest classroom there is sample room to display books and to produce other features for exhibition such as objects to examine. Again a teachers will and imagination are the two main requirements here. Enthusiastically organised, the classroom or learning area is a potent teaching aid. Rightly, the literature on primary education puts great store on the learning environment which a teacher and the school manage to create children learn from, and with, their immediate classroom environment. The standards which a teacher sets in the organisation and atmosphere of the class provide models and

years sticks for the children own work. We believe strongly that every primary classroom should reflect the range of subjects and topics being taught through well constructed display features including examples of children's work.

Among other constraints, we must include furniture in the list. Unfortunately, too many of our primary schools have to make do with old, poorly maintained and offer inadequate and unsuitable furniture. Even in these circumstances, however imaginative and enthusiastic teachers can hardly provide the type of environment which facilitates the kind of learning they wish to promote. Happily, many primary schools do have modern lighter, more adaptable furniture which enables teachers not only to set up a particular organisational structure within the class room, but also enables teachers not only to set up a particular organisational structure within the classroom, but also enables teachers to change and adapt the system to suit different purposes.

Hence a good classroom should display several of the following features.

1. It should be a pleasant working environment which children enjoy and where they feel happy and relaxed. Attitudes towards school and learning are formed early in pupils education. Undoubtedly, the attractiveness or otherwise of the physical environment contributes towards these attitudes. By judicious use of displays of children's own work, commercial material and natural objects as well as teachers contributions, along with items from for example, museums or resource centres, a delightful environment can be created. Teachers do not need to be artistic to make use of proper paper, drapes and stands to products good displays and a pleasing environment.
2. The classroom should contain examples of good work in a variety of media, modes and curriculum areas. As well as providing a pleasant environment, this will motivate children to do well and provide examples for them to emulate.
3. The good classroom will provide interesting and stimulating experiences. The right sort of displays will include art facts and objects to handle and explore as well as things to look at and read. Properly planned, tactile and exploratory displays will not only give children interesting and valuable experiences, but will also raise

questions and encourage the beginnings of investigations. Children need to be given time and often overt encouragement, to explore the materials or situations provided. It cannot be assumed that the more presence of displays will automatically lead to productive and worthwhile experiences and investigations.

4. In the classroom it should be both the inventive and the means of finding things out. A range of reference books and resources for investigation should be readily available.
5. Any classroom should be functioned and well organised. All commonly used materials and apparatus should be accessible and organised. Children can easily be trained to look after most aspects of the provision and organisation of materials and apparatus. Such delegation of responsibility has many advantages. Children enjoy accepting responsibility. Usually they make an excellent job of it when appropriately encouraged. Feelings of worthwhileness and usefulness are engendered. Also teachers are released for more important teaching tasks. Furthermore, the items themselves are usually more effectively maintained and conceived.

Good organisation in the classroom avoids confrontation and allows the teacher to establish the warm relationships with most of his/her pupils that he/she wants. A good teacher is a good classroom manager, whatever mode or teaching he is employing and whatever subject matter or skill is being explored, a teacher has the major task of managing the classroom. This involves the control of the group, the manipulation of time, the organisation of learning materials and it also involves the teachers own voice and manner. Good relationships are to some extent an ingredient of successful classroom management, but to a considerable degree they are also the result. There is more crossness, shouting and criticism in a badly run classroom than a good one. The well organised teacher is in a better position to be pleasant to his pupils. A mastery of group management techniques frees a teacher from concern about group control.

The better things go, the better relationships will be and then the lessons will go. It is the teachers responsibility to start up this virtuous circle and his best step is to make sure as far as possible that pupils kept out of trouble in the classroom. Pupils like teachers who help them to their better selves, they dislike teachers who generate situations in

which the pupils show the worst side of themselves. Run a calm, well-ordered, active classroom, in which no one is allowed to go for wrong, and you will be rewarded by growing good relationships.

1.7 MEANING AND CONSTRUCTION OF CLASSROOM CLIMATE

Herbert Telen in (1974) has emphasized this unique type of classroom climate by saying that each classroom has its distinctive culture and way of life. It is a feeling and emotional tone of the pupils within the classroom group towards one another. Climate can be described in terms of the role of the pupil participants interacting with the socio-psychological frame work of the classroom and school as a social institution. Thelen has said that this way of life cannot be directly observed but inferred from the situations and conditions that occur which can be observed measured and analysed. This relates with what goes on, between that pupils and the teacher within classroom.

The dynamics of a classroom is a sum total of the various activities that take place therein, of which some are being positive, negative, supportive, hostile, educating and non-educative. A particular activity is positive, supportive and educative when it stimulates pupils thinking a relates to their higher mental processes, build up attitudes and leads them to be aware of to select those which interest them most and results in choices of their future life. Educative, positive and supportive activities provide pupils a motivation to learn, activate them to achieve in academic spheres, widens their self-concept and perceptions of the world around them, challenge them to better adjustment in classroom life, where as on the other hand non-educative, negative and hostile activites arouses boredom, causes fatigue, tension, conflict, stress and strain and create confusion within the classroom group which do not train them to face the realities of life. The main concern of the teacher, therefore, is a to provide the group of classroom pupils varied academic activities in such a way that they are ; of maximum benefit for the majority of the pupils in the class, if not all. Herbert Thelen has again described A.L.P. Model known as constructs of classroom climate to understand what goes on within classroom He advocated that, classroom climate can be described through understanding the three basic terms of the climate constructs. They are Authenticity, Legitimacy and productivity known as A.L.P. Model. Now let us understand each one of the construct in detail.

Authenticity (Pupil involvement)

This kind of activities indicate pupils positive involvement within classroom group to their deepest level of energy and potentials. These activities are genuine, known to be true and prove to be fruitful in pupils learning process.

Legitimacy (Pupil satisfaction)

This kind of activities serve pupils purpose of learning various academic subjects legitimate activities are those in which pupils find answer, essential and useful to solve problems. Participating in these kinds of activities pupils feeling and develop concern for learning and try to learn from their peers, adjust with each other and develop affiliation motive with the group.

Productivity (Pupil goal- attainment)

This kind of activites lead the classroom group of pupils towards qualitative learning. The productive activites unfolds and develops pupils hidden treasure of their potentiality which leads them toward the process of self guidance and self learning.

1.08 LEARNING AND CLASSROOM CLIMATE

Within the conducive classroom climate the pupils feel about themselves, about what goes on in the classroom and about others is a resource which improves or impaires learning. Thus climate of any class can add or hinder the learning process of pupils. It can nurture or block learning. Therefore, the classroom climate is largely determined by the teacher how he handles various classroom transective situations. It is judged by the way he works, the things he does, the words he uses, the looks he gives and the way he thinks are but a few the determinants of climate in classroom. The pupils in classroom often reflect their teachers attitudes toward learning and living. In classroom where teachers have vision too. Pupils treat each other well when they are well treated themselves. If there is an enthusiasm for learning, a challenge in exploration and a respect for inquiry on the part of the teacher, It is usually followed by the pupils too, who have these feelings and operate their mind accordingly.

Thus building a climate for optimum learning in classroom is planning of interactions and activities and implementing it into work situations. It is moment by moment who work with the same pupils of the class over a longer period of time. It needs patience of a teacher who is more concerned about pupils growth in learning. It comes true when a teacher cares living with same pupils a classroom like for a long while and understanding them thoroughly.

The classroom personality is born out of the classroom group in which one lives and works together, Their relationship may be warm or challenging ultimately influence pupils learning and living life in classroom.

It is, therefore to alter the pupils learning behaviour, the teacher behaviour who is nurturing protective, encouraging, appreciating, supportive, affectionate, attending to the needs, enlightening and systematic leads to maximum pupil achievement whereas controlling teacher behaviour who compels, scolds, criticises and remains a pathetic toward them hinders their achievement in learning various subjects in a class. Here, the teacher should strive to facilitate pupils growth rather than directing them into particular channels.

It is very essential to know that the earth is composed of living environment on which human organism can only live and survive. The school and classroom being social organizations can adapt to this idea which is related more with human life and its processes. The many classroom pupils positive involvement, interaction, attainment in learning activities and satisfaction of achieved goal is conducive to learning outcomes in terms of better and excellent results of the school. This is specially and particularly known as 'ethos', ultimately creates, the institutional environment or school climate. These indicates the highest values of excellence and accompaniment of the task and its intensity to receptive behaviours. The role of a teacher as manager is to manage the classroom climate with ease, well and calm on one hand and safe guard the hostile elements on the other. Thus, this pupils journey inside the classrooms will be well founded which allow them to create their own information structure and intelligence network for further learning whereas in conducive school climate the pupils develop their experience friendly feelings, relaxed atmosphere, happiness, positive attitude for one another and teachers group with understanding nature. It is this climate that nurtures self confidence and the feeling of

belongingness encouragement to each pupil to participate regardless of their inadequacies.'

1.09 IMPORTANCE OF LEARNING ENVIRONMENT

In 1960, Getzel and Thelen presented a conceptual frame work for the analysis of classroom group as a unique social system. The importance of environment of learning was emphasized when Bloom (1964) set forth the theory that the inclusion of the environment as a variable makes a major difference in the production of human characteristics such as general intelligence and school achievement. In conjunction with Bloom's theory Maslow (1970) asserted that human behaviours is intrinsically related to the situation and to other people i.e. the social environment of the class.

The classroom environment is the product of interaction between teachers and pupils in the classroom situation. The particular environment of the class may affect student of in numerous ways their perceptions, motivations, morale, adjustments and learning. The way pupils are treated by teachers in classrooms determines the character of classroom.

The classroom environment has a very strong influence on learning and the development of the children both psychologically and physically. The quality of the classroom environment depends not only on the availability of the school facility itself, but also to a large extent on the efficient classroom teacher who has considerable control in adjusting to physical environment in the classroom.

Perkin (1951) concluded that the quality of teacher pupil interaction was a major determinant of group climate. Gatzel (1960) concluded that more desirable behaviour is shown in the class where the climate is good, where the climate is poor, pupils are distant from the teacher, more disconnected as a social group have a poor attitude towards school as a whole. A learning environment consists of all those physical, sensory elements such as lighting, colour, sound, space, furniture and so on that characterize the place which should be designed so that learning may proceed with minimum stress and maximum effectiveness. Though it should promote sensory comfort and high auditory and visual activity and its dimensions and physical layout should accommodate scheduled activities, allow for people's sense of personal space and promote desirable patterns of social interaction and communication (Mevrey 1985)

In addition to support human functionary, the learning environment must accommodate the equipments, tools and materials that are used in education and training. The introduction of these media ie chalk board, audio, video or film display, inevitably alters the nature of the environment. When media prudently integrated into the learning environment, it may be effectively employed in ways that are coordinated with basic human sensory processes. However, when media technology adds glare, noise or excessive heat to the learning situation, it vitalised the design of that environment and interferes with those same processes.

Improved learning environment may facilitate the learning processes in the following ways :

- Learning environment is a pre-requisite for motivation to learner to learn.
- It provides the maximum physical facilities such as space, light, learning material etc. and also provides learning situations.
- It helps the learner in moving smoothly from informal to formal learning.
- It makes learning a joyful experience
- It elevates the heart and enlightens the mind of the learners.
- It is a continuous affair to be transmitted from generation to generation in a society.

Some enlightened scholars feel that it is better to provide favourable learning environment prior to starting teaching. The need is to create an environment conducive to learning according to the internal and external situations of the learner.

Consequently guidelines are required that will enable the facility designer to create learning environments that recognise both how the human senses function and how instructional media operate. The educator also needs to be aware of ways of managing both the equipment and physical surroundings to effectively promote his/her educational objectives. Thus the facility designer through effective media utilisation, create the learning environment.

Teacher should create an atmosphere that reflects character and the pupil, it allows pupils to use wall displays as teaching aids, it means that teacher can manage the practical supply of learning materials better, have the pupils work easily to handle, and never have to search for anything,

it means above all, that teacher can use the physical environment of the room as an ally in influencing his/her pupils. Thus efforts taken in care, arrangement, and maintenance of room, especially of you enlist the help of a small number of pupils, is a valuable investment that will repay rich dividends, put simply, not only is a well kept and aesthetically pleasing room with functional displays an education in itself, but also pupils behave better in a room which is well organised and has individual character.

It would be fair to say that the physical impression of the classroom can be an ally or an enemy in teaching and part of the art of the classroom is to use the room itself. Its arrangement can contribute to the control, the learning, the relationship and the pleasure of working together.

ENVIRONMENT : A term much used in educational discussion (eg in tack of a child' intellectual growth through interaction with his environment) it refers to things, events and people in the real world around the child that he might perceive or that might have some effect on him.

LEARNING : A long listing change in knowledge attitude or skill, acquired through experience. This experience may take the form of conditioning education, incidental learning, instruction, training and so on.

ENVIRONMENT : The term environment (Dressel 76) used in education to the conditions, circumstances, and influences which surround and effect the development of an organism or a group of organisms. Environment includes psychology, social and physical componenets as the campus moves, tradtions, rules, acceptable standard of behaviour and achievement, innovative - conservative balance; issue and controversies, group-architecture, facilites, value orientations and priorities and finally organisational structure.

Environment in the learning rprocess assurs sifnificance on the basis of fact that, one cannot alter the heredity factors and structural changes, what one can do, it to improve the environment of the learner especially those under their control such as learning material construction, using new techniques of teaching, good library services, obtaining extensive information about the needs, interests and abilities of every learner in different situations etc.

Darwins theory of Natural selection (1859) stresses the importance of environment is a more constituent of survival of not only lower living beings but mans as well. From the infants age, one can adjust

and learn from his surroundings. Different social behaviours are learnt from the surrounding social environment.

LEARNING ENVIRONMENT : On the ground of the importance of environment in learning processes, educationists and psychologists recognise the combination of the words learning and environment as learning 'environment'. Basically, a learning environment is more than what an engineer can measure in learners's immediate physical surroundings it includes everything inside and outside of the space, the learner occupies which in any way affects his behaviour during a particular routine.

Rastogi (1989) defines learning environment as the result of the interaction between man-man and man-material. A learner interacts with man and material in different settings such as 'home, community, school work place etc.

These different types of interactions which constitute the learning environment provide the corresponding learning experiences to learners, which on their part interact with each other and result into learning and education of the learners.

According to John Dewey "Learning is dependent on experience the nature and quality of educational experience are largely determined by the characteristic of the learning environment. By viewing the school atmosphere in terms of the aspects that are significant of the growth and development of the learner. We can extract and classify important portions of the environment in which the student lives.

Bloom (1968) discussed and describes this environment as follows :

.... We regarded environment as providing a net work of forces and factors which surround, engulf, and display on the individual. Although some individuals who can completely avoid a escape from these forces, the environment is a shaping and reinforcing force which acts on the individual.

The environment of the class room is defined by the shared perception of the members of a classroom along with a number of environmental dimensions the environment exercises an influence over their members (Nearsow and Knic 1974).

In the Dictionary of Education, Good environmental conditions or qualities that tend to produce a shape of feeling or emotional response,

especially the teacher-pupil and pupil-pupil relationship as environmental influences during teaching learning process.

According to Good's Dictionary of Education, Classroom environment/climate includes heat, light, seating individual differences among the members of the group, teacher personality and teacher-pupil relationships. In general, it may be said that the classroom environment/climate could include the physical, social and psychological dimensions.

According to Siclair (1970) Educational environment refers to the conditions, forces and external, stimuli that foster the development of individual characteristics.

Education environments according to Dave (1963) relates to the conditions, processes and psychological stimuli of the total environment which affect child's academic achievements. Educational environment is affected by the students variables sex, home variables - rural, urban.

The classroom psychological environment is the climate or atmosphere of the class as a social group that potentially influences what student learn. Because the classroom environment as it has been investigated, refers to the less tangible aspects of the contexts of teaching and learning, it is often inferred by asking students to perceive and rate the psychological characteristics of their classroom group on questionnaire items. These items typically concern with affective and social relation among the class members, the emphasis given to efficient completion of learning tasks, and the implicit and explicit systems of rules and organisations of the class, the purposes of their article is to (a) describe the scope of the field of research on classroom psychological environment (b) discuss its theoretical and historical understanding and (c) synthesize educational research on the measurement of empirical relationships between psychological environment and learning.

Psychological perceptions of classroom environments have important influences on student achievement. Performance and self concept as well as on other valuable educational outcomes. Climate measures are practical, inexpensive as valid. and they predict learning gains more accurately than do so called objective variables such as students social class, teacher behaviour and other characteristics, school and class sizes and educational expenditures.

Constructive educational climates may be viewed as means to valuable educational ends or as worthy ends in their own Right, information on

educational climates may be conveniently gathered and fed back to school staff for the planning, execution and evaluation of data based educational improvement programmes. Climate measure can also be included along with standardised tests and other assessments in research efforts.

Because learning environment assessments are convenient, practical and inexpensive, because of their demonstrated predictive validity and revealing, reliable sensitivity to educational innovations and because research information from them proves interesting, meaningful and suggestive to educational policy makers and practitioners. They are being used in a wide variety of evaluation and research projects in many countries. It seems likely that this thriving, young tradition of environmental assessment balances and complements the older traditions of behavioural assessments and standardised cognitive measures were continue to grow in size, theory and utility.

1.10 PHYSICAL ENVIRONMENT

Classrooms are environments for learning over a school day, a number of subsettings, and segments of environment are established to be inhabited by teachers and pupils. The classroom segments consists of physical and activity aspects joined together to support desired inhabitant behaviours and experience. The qualities of classroom segments can be identified and the effect of these qualities upon teacher and student behaviour can be determined. Effective learning and other worthwhile school experience are much conditioned by the qualities of classroom segments, presented here are the available conceptualizations and research findings regarding classroom segments and their relation to pupil and teacher behaviour.

Architecture

In the 1971 year book of the National society for the study of Education Anderson wrote "It is almost axiomatic that the physical environment of a school is important as a factor in each child's learning but solid proof of support of the proposition, especially in terms of assessing the amount of difference, the environment makes is almost non-existent.

Equipment and materials

Equipment and materials constitute an important element of the physical environment for learning. It is often assumed that the

physical environment of a school important in student learning and this assumption is implicit in many programmes intended to improve the quality of schooling. A major review of research in the field suggests that the physical environment of the school does have effects upon patterns of behaviour of students and teachers and upon the attitudes of students even though substantial effects on achievement have not been consistently detected.

There is already available a substantial amount of evidence that the physical environment of a school or classroom can affect the behaviour of people and their attitudes to school learning. This evidence is relevant to the provision of schooling not only because it is important to foster a variety of types of learning and to attend to a wide range of goals in schools, but because the development of interests through participation in varied activities may have long term effects on cognitive and affective development.

You are lucky if you are going to have a classroom of your own. A room of your own means that you can create an atmosphere that reflects your character and what you have to offer the pupils who come to you. It allows you to use wall displays as teaching aid it means that you can manage the practical supply of learning material better, have the pupils work easily to handle, and never have to search for anything, it means above all, that you can use the physical environment of the room as an ally in influencing your maintenance of your room, especially if you enlist the help of a small number of pupils, is a valuable investment that will repay rich dividends, but simply not only is a well kept and aesthetically pleasing room with functional displays and education in itself but also pupils behave better in a room which is well organized and has individual character.

It would be fair to say that the physical impression of the classroom can be an ally or an enemy in teaching and part of the art of the classroom is to use the room itself. Its arrangement can contribute to the control, the learning, the relationships and the pleasure of working together.

1.11 SOCIAL - PSYCHOLOGICAL ASPECTS OF ENVIRONMENTAL PSYCHOLOGY :

Educational psychology is concerned with the reciprocal and interactive influences that takes place between the thinking

and behaviour of an organism and the environment surround that organism.

The environment can affect the sensations, perceptions and cognitions of the experience of individual. The individual may experience contain physiological reactions and also may evaluate and adopt attitudes towards the environment and other individuals within it. His performance on tasks may be affected and more generally, many of his behaviour in that environment may be altered. These alterations may spill over in the sense that they may appear in environments other than the ones in which they initially were developed.

Environmental research has traditionally occupied itself with aspects of the Ambient Environment (AE) temperature, lights, sound etc. and spatial layouts (seating arrangement, position of doors etc).

All built interiors possess levels of sound, illumination, and Temperature and these 3 aspects of the Ambient Environment (AE) has received a great deal of alteration of environmental psychologists and ergonomists interested in creating healthy work environment. Productive school setting spatial layout refers to the ways in which objects (Furniture, machinery, door etc) are situated within a built environment of certain dimensions.)

Primary school classrooms generally course ethics informally arranged, furnished with movable furniture and other various pieces of equipment familiar to those of the open classroom persuasion or more formally arranged, with chairs in rows and standard readers available, all presided over by a traditional teacher AE, psychologists might discriminate these open and closed classroom and constant studies of the comparative learning and motivation.

Learning environment is a unique concept reflecting the socio-economic, psychological and political sub systems of the total environmental system. The learner is a part of all these sub systems. He is a product of these composite environmental culture. Very closely associated with the concept of learning environment, one the variables of learning resources, the settings, the family, society, all religious institutions, methods of teaching including the hardware and software component of educational technologies, instructional climate, peers and a host of material and social variables that are present at the place where the learning centre is located. These are the external to the learners.

There is no hierarchy of values / situations in learning, every factor can be of critical amount a occasion fresh air may be as important as fresh ideas. Environment, the place, shape and character of the facilities, all affect the amount and quality of learning. The physical factors favouring, supporting and reinforcing the individual learner are no different from those social situations. It is important to recognise that the focus of much or most learning situations for the child is the home, the place of work, means of transport etc. Once of these Environments are planned for learning. Until such environments are planned for these needs, individual learners will be obliged to arrange for appropriate learning space in their own homes and work places and organise their own equipment. The problem is to recognise the need. Once that is done solutions can be found.

1.12 FACTORS OF LEARNING ENVIRONMENT

1. **Cohesiveness** : When several individuals interact for a period of time, a feeling of intimacy or cohesiveness may develop. This property separates members of a group from non-members and has been found in research to relate the several class and course properties. For example, smaller classes were found to be more cohesive than were larger classes. Classes of teachers inexperienced with a new course were perceived as more cohesive than those taught by teachers more familiar with the course history and English were classes were found to be more cohesive than science classes (Anderson 1971). Also class cohesiveness has been found consistently to be positively related to learning centres.
2. **Diversity** : The extent of which the class provides for a diversity of pupil interests and activities is regarded important by education philosophers and curriculum developers, when the LEI was employed in an evaluation of the Harvard project physics course, it was found that classes using the experimental course were perceived as having significantly more diversity of interests and activities than those using traditional courses (Anderson & Walberg & Watch 1969). Consistent links between classroom diversity and student outcomes has not yet been established.
3. **Formality** : The extent to which behaviour within the class is guided by formal rules reveals something about the behavioural norms

of the group. Research suggests that larger classes are considered more formal than are smaller (Walberg 1969) and that mathematics classes tend to be less formal than classes in science, humanities and languages (Anderson - 1971). Relationships between formality and student learning have tended to be positive.

4. **Speed :** The rate of progress of the class ideally should be matched to the characteristics of individual pupils within it. The individual students perception of how fast the teacher covers the work tell us something about the student, whereas the class rating of speed should tell us something about how well the teachers is able to communicate with and adapt to the needs of the group. Examples of research findings are that speed was negatively correlated with the mean 1 Q score in the class, and that classes in science and mathematics were considered as having a faster pace than those in English and History (Anderson 71). But speed has not been found consistently to relate to pupil learning.
6. **Friction :** Of Thelen's (1950) three major concepts of experiencing, interdependence and conflict is considered the most significant social psychological phenomenon. Energy expended in conflict cannot be channelled in other directions and the emotional upset resulting from extensive or continued conflict can be expected to impair learning. The Friction scale in the LEI measures from the pupils viewpoint, essentially the three observational categories 'shows disagreement', shows tension, and shows antagonism of Bales (1950) interacting process analysis, past studies have revealed that friction is higher in mathematics classes than in other subject areas (Anderson 1971) is higher when the class contains a larger number of boys than girls (Walberg and Ahlgren 1970) and is negatively correlated with measures of learning.

Goal Direction : Bany Johnson (1964) in their book on classroom group behaviour, consider group goals of vital importance to individual pupil learning. The recognition of goals and their subsequent acceptance by the group serve to sanction only goal-oriented behaviour and provide an expected role or norm for class members. Anderson, Walberg and Wetch (1969) found that, as hypothesized, goal direction was higher in classes following traditional courses than in classes using an experimental physics course. Studies of learning criteria have

established positive relationships between goal direction and students learning.

Favouritism : This scale is essentially a measure of negative affect and might be used to indicate whether given pupils have a low academic self concept. As a measure of group properties, it assesses the amount of tension and quarrelling in a class. Consistent favouritism learning associations have not been found.

Difficulty : The difficulty scale can be considered important for the same reasons as for the speed scale and because it completes the depth-breath paradigm used by some educational theorists. It assesses the extent to which students find difficulty with the work of the class. Example of research findings for this scale are that classes following traditional courses (Anderson, Walberg & Wetch 1969), that mathematics classes were considered more difficult than classes in other subjects (Anderson 1971) and that larger classes were perceived as less difficult than were smaller ones (Walber 1960); Anderson & Walberg 1972). Positive relationships have been found between student perceived difficulty and student learning outcomes.

Apathy : This scale complements the cohesiveness scale and indicates whether individuals within the class feel a lack of affinity with class activities. Apathy has been found consistently to be negatively related to learning criteria.

Democracy : A large number of studies on the authoritarian democratic continuum has attempted to support or oppose democratic classroom atmospheres (i.e. situations in which students share in decision making related to the class). In research applications, this scale has not discriminated among courses, but it has been found to relate significantly and positively to pupil learning.

Cliques : Sub groups or cliques within a class can lead to hostility among members of various parts of the class. These cliques offer protection to those who are failures in the group at large and provide alternative norms which presumably lead to less than optimal group productivity. Cliques has been found to be higher in classes following traditional courses than in those following an experimental course (Anderson, Walberg & Watch 1969) and to be negatively associated with student learning.

Satisfaction : Whether or not pupils like their class can be expected to effect their learning. If students dislike the subject, the teacher or their classmates, their frustrations may result in less than optimal

performance. Furthermore, because use of this scale may help shed light on the effects of such practices as homogeneous and heterogeneous grouping, sexual and racial integration and so forth. Satisfaction has been found to be negatively related to class size (Walberg 1969) and to be consistently positively associated with student learning.

Disorganisation : This scale measures the extent to which pupils consider the class and its activities to be confusing and poorly organised. Research has revealed that mathematics classes tend to be viewed as more disorganised than in other subjects (Anderson 1971) and that greater disorganisation has been linked consistently with a reduction in pupil learning.

Competitiveness : Class emphasis on students competing with each other is a central concept in group dynamics and therefore was added to the 1969 revision of the LEI. It has been found that competitiveness tends to be greater in classes with a higher proportion of boys and girls (Walberg & Ahlgren 1970) but consistent relationships between competitiveness and students learning outcomes has not been established.

1.13 ACADEMIC ACHIEVEMENT

The achievement of the students is the foremost goal of education. The moment a child enters school, the attention of the teacher, student and parents is concentrated on a single point, that is, the achievement of the students. Higher achievement on the part of the people involved in this process the institutions may cease to play their role effectively. Therefore, the assumption that the achievement of the student in the educational programme is single important objective of all concerned appears to be true.

The achievement level of the students of an institution is an accepted indicator of its efficiency. Even in the institutions where the inputs are similar, the students' achievement is normally not found to be uniform, where the inputs vary with the variance in the students' achievement is likely to accentuate.

Achievement, appears to be the success measured at the completion of the effort in achieving a task that has been undertaken. For a farmer a good harvest is a better achievement, for a scientist the exploration of a new vista in the world of science is an achievement and for a student the attainment of new experiences, knowledge, attitudes and skills is achievement. Academic achievement is defined by Carver. V.

Good (1970) as "Knowledge attained or skills developed in the school subjects usually designated by the test scores or by marks or both assigned by teachers".

Achievement is the status of a pupil with respect to attained skill or knowledge. "By achievement we generally mean that subject is not merely executing a task without assistance, but in trying to perform well with the aim of eliciting positive reinforcement of the students demonstrated competence in the task" (Parikh, 1964).

Modern learning environments

Many of the modern learning environments being built today promote and support a range of pedagogies including, applying, creating, communicating and decision-making. They are often centred around a student home base where a lot of the teaching and learning occurs, and these bases provide access to a variety of other learning spaces. Modern learning environments support strengths-based teaching and can offer students and teachers flexibility, openness and access to resources. Providing teachers with an open, flexible learning environment where inquiries are shared, interventions devised collaboratively and reflections based on both self and peer observations, can lead to the development of a robust, continuously improving community of practice.

Modern learning environments that align better with what we know about the brain and student learning can facilitate traditional pedagogies such as direct instruction if needed, but they typically offer students and teachers much more.

- 1 Flexibility the ability to combine two classes into one for team-teaching, split a class into small groups and spread them over a wider area or combine different classes studying complementary learning areas.
- 2 Openness : modern learning environments traditionally have fewer walls, more glass and often use the idea of a learning common (or hub) which is a central teaching and learning space that can be shared by several classes. they provide opportunities to observe and learn from the teaching of others and be observed in return. They also provide access to what students in other learning areas and levels are learning.. so that teaching and learning can be complemented and enhanced.

- 3 Access to resources (including technology); typically a learning common is surrounded by breakout spaces allowing a range of different activities, such as reading, group work, project space, wet areas, reflection and presenting.. There is often a mixture of wireless and wired technology offering access as and when students need it, within the flow of their learning.

Learning Environment to Support student learning

Many of the modern learning environments being built today effectively promote and support a range of pedagogies including delivering, applying, creating,, communicating and decision making. Often they are centred around a student home base where a lot of the teaching and learning occurs but these bases also allow access to other learning spaces. Not all classes will need all spaces all of the time, but students should have access to them should the need arise.

Modern learning environments support strengths based teaching. For example, two classes collaborating on a science project that requires them to publish what they've learnt in the form of an educational poster will achieve much better results if both classes have access to one teacher who has considerable skill in graphic design and one teacher who has excellent knowledge of science and scientific inquiry.

Case study : Stonefields School, Auckland

Stonefields School is made up of a series of Learning Hubs which are larger, shared classroom areas surrounded by breakout spaces that offer students a range of different learning activities, group work, digital production, project work, reflection spaces, reading spaces, etc., Typically three teachers share each hub, and the collaboration that takes place in them mean students have access to a range of teacher strengths, and classes can be reconfigured easily to meet learner needs.

Learning environments to support teacher learning

Open and flexible spaces also create more collaborative communities of practice for teachers. Having access to the teaching practice of your colleagues to model and to be modeled to, supports the development of effective teaching practice for more than teaching in an isolated, private space. This de-privatisation of practice means that honest exploration

of teacher strengths and weaknesses can take place in an open and supportive environment.

Beginning and provisionally registered teachers have for more support around them in open learning spaces. Their progress can be monitored, supported and celebrated by their more experienced colleagues and on going low level mentoring is easy to put in place because they have seasoned professionals to the left and the right of them.

Modern learning spaces can support teaching as inquiry better than single-cell classrooms, Working in an open, flexible learning environment where inquiries are shared, interventions devised collaboratively and reflections based on both self and peer observations, leads to a more robust, continuously improving community of practice.

1.14 SIGNIFICANCE OF THE STUDY

The Government of India has been paid much attention to provide conducive environment in the classrooms for effective learning. No. of schemes and policies also laid much stress for better classroom performance of children in the schools. The classroom environment directly or indirectly influences the children for their academic growth. The dimensions of classroom environment are important factors to influence the children in the organisation of the classroom activities. In the realization of educational goals creating of effective classroom climate is an important factor. In such as situation, we can achieve the educational goals with less effort.

In the education career of the child, primary education plays a crucial role. It lays foundation for the development of right type of attitudes, values and interest. It puts the foundation stone for the personality development of the child.

Every management has to encourage the teacher or the Headmaster or the Administrator to create conducive learning environment in the classroom for better performance and achievement. The researcher has identified this problem for his study of classroom climate behaviour of its importance in achieving the learning goals.

The problem is to study the effect of classroom learning environment on the academic achievement of pupils. Most of classrooms are not organised planned and systematic. The researcher had observed number of classrooms during visits of schools and came to the conclusion

that classroom climate has an impact and he selected this problem for study. The results will help both the managements and the educational workers in realizing instructional goals.

Hence there is need to study the effect of the classroom learning environment on the academic achievement of the pupils and to suggest the component of learning environment to achieve better results. Hence the need for the present piece of research. “The effect of classroom learning environment on the academic achievement of the pupils”.

1.15 OBJECTIVES OF THE STUDY

Classroom is a place where the personality of the child will be developed through teacher pupil interaction. The positive classroom learning environment leads to better learning of the child now every classroom and its learning environment are important elements to mould the child as responsible citizen of the country.

The major objective of the present investigation is to find the effect of classroom learning environment on the academic achievement of the pupils.

The following are the specific objectives of this study

- (A) To study the components of learning environment.
- (B) To study the perceptions of teachers on learning environment.
- (C) To study the perceptions of students on learning environment.
- (D) To study the effect of learning environment on the academic achievement of the pupils.
- (E) To suggest the components of (LE) Learning Environment for high achievement.

1.16 BASIC ASSUMPTIONS

The investigator started his research with the following assumptions.

- 1 That each school has a unique learning environment based on its own characteristics.
- 2 That the learning environment can be identified by the factors of environment which are prevailing in class between the teacher and pupil for better learning.
- 3 That the learning environment can be measured.

- 4 That the personal variables of respondent teachers like age, location, sex, qualification and experience etc., influence teachers perception of classroom learning environment.
- 5 That the personal variables of respondent student like sex and location etc influence students perception of classroom learning environment.
- 6 That the school performance can be measured on the basis of its students performance in the terminal examinations.
- 7 That the classroom learning environment is that what measured by the individual classroom environment questionnaire.

1.17 HYPOTHESES

- 1. There is no significant difference of the perception of teachers on the classroom learning environment.
- 2. There is not significant difference of the perception of students on the classroom learning environment.
- 3. There is an impact of classroom learning environment on the academic achievement of pupils.

Chapter-2

REVIEW OF RELATED LITERATURE

2.01 INTRODUCTION

In the previous Chapter the problem was explained which intended to study the effect of classroom learning environment on academic achievement in primary schools.

In this chapter the research literature available in the field classroom learning environment and academic achievement is proposed to review. Some of the important works in the field are discussed in the following pages in two parts i.e. studies done in abroad and studies done in India.

2.02 CLASSROOM LEARNING ENVIRONMENT

2.2.1 Studies done outside India

More number of research studies have been conducted in the western countries in this area than in India.

A Comprehensive review of past Research in the field of classroom environment are available elsewhere. Several books (Moos, 1979, Walberg, 1979, Fraser's meta-analysis (Haertel, Walberg & Haertel 1981) a guest edited journal issue (Fraser, 1980) had numerous reviews Randhawa & Fu, 1973, Anderson & Walberg, 1974, Walberg, 1976, Walberg & Haertel, 1980, Fraser 1981 b, Fraser & Walberg 1981). These sources indicate that the strongest tradition in past research has involved investigation of the predictability of students cognitive and attitudinal outcomes from their perceptions of the classroom learning environment. In fact, a large number of studies conducted in numerous countries has provided consistent and strong support for the incremental predictive validity of students classroom perceptions in

accounting for appreciable amount of learning outcome variance, often beyond that attributable to student entry characteristics such as pre-test performance and general ability. Examples of studies supporting the predictive validity of student perceptions of their science classroom environments include those conducted in the United States (eg. Walberg 1972, Lawrenz 1976, Haladyana & Shaghnassy 1981) Canada (Walbergh & Anderson 1972), Australia (Fraser 1978, 1979 a, 1981 c) Israel (Hofstein at all 1979) and India (Walberg, Singh & Rasher 1977). Moreover, this pattern of results is illustrated in the consistent findings of a recent meta-analysis of 12 studies of classroom environment-outcome relationships involving 17, 805 students in Four national (Haertel, Walberg & Haertel 1981). Student learning was found consistently to be positively related to the levels of cohesiveness, satisfaction and task orientation in the classroom and negatively related to the levels of friction and disorganisation. These findings have important practical implications about the ways in which classrooms might be changed in an attempt to improve student learning.

We have used a criterion variables in past research classroom environment scales have provided useful process criterion of curricular effectiveness. Walberg (1975) and Fraser (1981 a) have urged curriculum evaluators, researchers and teachers more often to view psychological classroom processes as valuable ends in their own right. Moreover in evaluations of Harvard project physics (Welsch & Walberg (1972) and the Australian science project (Fraser 1979) Classroom environment variable have been found to differentiate revealingly between alternative curricula when various cognitive outcome criteria showed little sensitivity.

A series of other studies has used student perceptions of classroom environment as dependent variables in investigating factors affecting classroom environment. For example, studies of science classrooms have revealed interesting relationships between the nature of the learning environment and teacher personality (Walberg 1968), Class size (Walberg 1968), traits time (Cohen 1978), Grade level (Welch 1979) and type of school (Hofstein at al 1980). Also other studies involving samples of students in a variety of subject areas have established associations between the nature of the classroom environment and school subject matter (Anderson 1977, Hearn &

Moos 1978), Knert, 1979) and characteristics of the school level environment (Fraser & Rentoul, 1981).

The learning environment inventory (LEI)

In the late sixties a series of research and evaluation studies were exacted to determine the success of Harvard project physics (HPP). HPP was an experimental course implemented in various secondary school physics classes across the United States, HPP used a variety of new instructional media emphasizing the philosophical, historical, and humanistic aspects of physics (Walberg & Anderson, 1968). To determine the efficacy of HPP, Walberg (1969 b) devised an instrument called the classroom climate questionnaire (CCQ). The CCQ's Dimensions were based on Hemphill and Westile's (1950) Group Dimensions Descriptions Questionnaire (GDDQ), which measured general characteristics of adult behaviour. The items of the GDDQ, however, were inappropriate for the classroom group, but they did suggest a number of dimensions possibly related to learning. On the basis of those dimensions and others hypothesized to be relevant, 90 items were written for classroom climate questionnaire (Walberg 1969b p. 444). Despite the validity of the CCQ, Psychometric studies showed that the items were unreliable and redundant, thus the work began on the LEI.

According to Walberg (1969b), the Getzels and Thelen (1960) theory of the class as social system had proven useful in earlier research. The Getzels -Thelen theoretical treatise suggested that classroom, personality needs and role expectations interacted to form a climate in which group behaviour, including learning could be predicted. Hence, the Getzels-Thelen (1960) treatise was used as a theoretical guide for constructing the new LEI.

The LEI was designed to measure the social climate of learning in a classroom as perceived by the pupils (Anderson, 1973). The original form of the LEI contained 14 scales and in the 1969 revision a 15th was added. The climate dimensions or scales are (a) cohesiveness (b) diversity (c) formality (d) speed (e) environment (f) friction (g) Goal direction (h) favouritism (i) cliqueness (j) satisfaction (k) disorganisation (l) difficulty (m) apathy (n) democraticness and (o) competitiveness. Each of the scales contains seven items. To ensure homogeneity of item content, all 34 items that had been misclassified by the judges were

either revised or replaced. Six of those items with poor scale correlations were modified also. All items described typical school classes, and the respondent expressed his or her agreement or disagreement with each item on a 4 point Likert scale. In addition to measuring the social climate of learning as perceived by its pupils, the LEI was devised to assess a student's perceptions of his or her class. That is, if the concern was for variables such as pupil sex, self concept or personality, then the individual scores could be used to assess the perceptions of the individual students in his or her classroom.

Learning environment inventory studies

The first studies to be reviewed used data from HPP. The subsequent studies reviewed used various and distinct data bases. Walberg & Anderson (1968) investigated whether individual student satisfaction with the climate of a classroom would enhance learning. Their hypothesis that the student achievement and interest in the subject could predict structural and affective aspect of classroom climate was confirmed, the climate measures of the personal relations between class members did predict learning. The variables that accounted for 12 correlations with the criteria were personal intimacy, friction and satisfaction. This, it is not the identification with the group that correlates with learning but the perception that the class is personally gratifying and without hostilities among the members (Walberg & Anderson 1968, P. 148).

The following year Anderson, Walberg and Welch (1969) explored potential determinants of the social climate itself in an effort to gain insight into the matter in which classroom climates evolved. Anderson et al (1969) administered the LEI to students of HPP where the teachers of these students belonged to one of three groups, in experienced experimental group, experienced experimental group, and experienced control group. It was hypothesized that (a) students would perceive significant differences in the learning climate of the three teacher groups (b) students' perceptions of the two experimental groups would be similar when compared to the control (c) the experimental classes would be perceived as more diverse than the control, and (d) students would perceive the experimental course to be less difficult because of the diversity of instructional approaches. Anderson et al (1969) found significant differences in the climates of classes receiving different course and teacher treatments and that teacher experience with a

course has less effect on climate than the course itself. These findings supported hypotheses and (b) the data also supported hypotheses. (c) and (d) of interest in study was that course effect appear to account for appreciably more variance than teacher selection and experience in teaching a course.

Because the above study found that the course effects as perceived by students viz the LEI accounted for more variance than the teacher and his or her experience in teaching, Walberg (1969 b) questioned of a side from course effects, social environments influenced classroom learning. After correlating the LLEI scales with six post tests and an IQ test taken by students, Walberg asserted that the measures (i.e.-LEI) of the social environment of learning as perceived by student predict learning criteria before and after relevant control variables such as post-test and IQ test are statistically removed from the criteria (P.448). Moreover in replicating his own work. Walberg (1969 a) affirmed that student perceptions of the classroom learning environment could be measured reliably with a high inference measure such as the LEI and that environmental measures were valid predictors of learning.

Another study using HPP data was conducted by Walberg and Ahlgren 1970. They investigated the predictability of the environment scales from a variety of teacher, student and class characteristics. Six cognitive tests, the LRI seven potentiality scales, an IQ test and a biographical questionnaire were administered within a span of a year to obtain some measurable characteristics. In brief, based on the various correlational relationships that could result from all the above criteria, "the present study showed, that the class room climate could be predicted from a number of variables (i.e. cognitive test personality measures etc) (P. 165). They noted that it was not their purpose to introduce complex interpretations of all the significant findings until this study could be replicated however, the study data did imply (because of the various measures that were used) that cognitive and non-cognitive learning might be affected by manipulation of variables that effect classroom climate, moreover, positive information on predictors of classroom climate, the possibility of manipulating the predictors and demonstrating a valid way for assessing climate, replicating and extending the method into other causes and classrooms all became viable considerations.

Thus for this review studies by the Walberg and Anderson (1968). Anderson et. al 1969, and Walberg (1969 a) (1969 b) has shown that high

school social environments, of HPP demonstrated validity of student perceptions of their classrooms, vis-a-vis the LEI in predicting cognitive, affective and behavioural learning and the the social environments of classes randomly assigned to different physics classes differed significantly. Further more, in a correlational study Walberg and Ahlgren 1970 found that the social climate in high school HPP classes could be predicted from cognitive and non-cognitive pretests, student biographical characteristics, teacher experience and other variables. Hence there was research evidence that the use of a high influence measure, the LEI was indeed useful for investigating various occurrences in high school classrooms, cognitive and otherwise with reliability.

Because the above research from Harvard project physics had established that students perceptions could be measured reliably using the LEI researchers initiated studies on other areas with various types of classrooms under diverse conditions. Anderson (1971) studied the effects of course content and teacher sex in the social climate of learning. Differences in four high school classroom climates (Science, Mathematics, French and humanities) were found. The data illustrated that French and humanities, classes were easier going compared to the "Hard" sciences. No relationship was found between teacher's sex and pupils perceptions of the learning climate in the classes.

In an evaluation of mathematics achievement, O Reilly (1975) examined the relationship between certain social and personal characteristics of pupils, the climate (a) measured by the LEI of 9th and 10th grade mathematics classes and students mathematics achievement. Data were collected from 1,100 students in 48 classes equally divided between the 9th and 10th grades from 12 secondary schools. He found that the scales of the LEI accounted for 67% of the variance in achievement. Variables such as parents education were related to the LEI scales of goal direction, difficulty and apathy dislike for schooling was related to the favouritism, apathy and democratic scales and student achievement was positively related to the cohesiveness environment, satisfaction, difficulty and democratic scales. Five scales were negatively related Friction, favouritism, cliqueness, disorganisation and apathy (O. Reilly, 1975). Because of these data, (Reilly 1975) suggested that a supervisory programme for teachers could be designed for monitoring classroom climate and to assist those teachers to change the climate accordingly to affect achievement positively.

Most studies using the LEI had been done in Urban or sub urban settings Randhawa and Michayluk (1975) changed that by examining the learning environments of classrooms in grades of and in rural as well as urban settings. They studied 47 classrooms from the rural settings and 49 from the urban setting with an approximately even distribution between 8th grade and 11th grade students. Mathematics, Science, Social studies and English courses were represented. Randhawa and Michaylule found that course content did not affect the learning environment of the classrooms. However, results did indicate that course content affected only the cohesiveness of the classroom significantly. They also found that mathematics and social studies classrooms had significantly higher perception means on cohesiveness than English rooms. In addition, "rural classrooms were characterized by cohesiveness, cliqueness, disorganisation and competition; where as urban classrooms were characterized by environment, difficulty and satisfaction. Based on these findings, Randhawa and Michayluk asserted that urban classrooms offer better physical environment are intellectually stimulating, and seem to meet the needs of the learners, in such a way that they (students) perceived their learning experiences sufficiently satisfying urban classes would seem to have better learning orientation than the rural classes.

As noted, the LEI had been used for a variety of research and evaluative purposes. All the same, crosscultural generalizability of students perceptions to the social environments of learning and had been omitted. Walberg, Singh and Rasher 1977 corrected that omission by conducting an experiment in the State of Rajasthan India. The LEI (translated into Hindi) and IQ measures were correlated with the mean end of course achievement scores of 166 groups of studios and non-studios" members of 83 general science classes and 134 similar groups in 67 social studies classes, which were randomly sampled. Walberg at all found that the patterns of the correlation for general science and social studies were generally comparable. Also multiple correlations of IQ plus all the LEI scales went considerably beyond the correlations with IQ along in both the general science and social studies groups.

In another study, the LEI was used to investigate of the stability of student perceptions of the classroom climate would change over a short time (Lawrenz 1977). For this investigation, Lawrenz (1977), proposed three questions : (1) Are class mean scores for the LEI scales stable over time, (2) Are the individual student scores for the LEI scales

stable over time, (3) Do individual students who take the LEI more than once have different perceptions of the classroom environment than their class mates who take it only once. In response to these questions, Lawrens found that LEI class mean scores were stable over time. LEI individual scores were stable over time and no difference was found to exist between students who took the LEI once and those who took the LEI twice. Lawrenz concluded that student perceptions of the classroom environment as measured by the LEI were consistent over time moreover, previous research on the classroom learning environment was strengthened because the implicit assumptions of stability had been verified.

Coat tailing on the Lawrenz (1977) study, which verified classroom climate stability over short periods welch (1979) contended that stability in educational environments over larger periods had not been investigated.

Welch's (1979) study (based on a stractified random sampling technique of 15 Western states) included 563 classes in 1972 and 558 classes in 1976 with similar subject matter treatments in those 4 years (i.e. Science and Mathematics). Teachers administered a modified version of the LEI (10 scales instead of 15) in early spring 1972 and again in 1976 to all students. Class means from the LEI were obtained and submitted to a three way multi variate analysis of variance. The main effects due to year (72-76) subject (science, mathematics) and grade level (junior, senior high) indicated that the 10 LEI scales taken together over the 4 years were significant. Welch suggested that ime, curriculam and age would have an effect on the students perceptions of the learning environment. Also there were significant multivariate intereactions between grade and subjects, suggesting that on some LEI scales the junior-senior high perceptions changes were different for science and mathematics. However, no interactions were noted for the effcts of time the primary concern of this study. Other results suggested that a more conservative environment and more student satisfaction were perceived to be goal directed, difficult, and democratic, whereas science classes were disorganised, formal and cliquish with students perceiving more disorganised, formal and cliquish with students perceiving more friction and favouritism, Next, the student and activity centered environments were more prevalent in junior high classes than in senior high classes. Finally the LEI results of this study lend strong support to the claims

by teachers and administrators that the educational scene is shifting the perceptions of students seem to reflect the gathering momentum of a back to basics movement.

Other important studies reviewed are the investigations by Fraser (78, 79). Fraser (78) modified the LEI for use in individualized junior high school classrooms, The modified LEI informed a battery of nine classroom climate scales suitable for science classrooms and the seventh grade. In addition, the LEI provided dependent and independent variables to be evaluated in the individualised seventh grade classroom. The LEI as a dependent variable would reveal differences in student perceptions of the classroom environment. The LEI as an independent variable would predict student cognitive and affective learning outcomes, using the LEI as a dependent variable, Fraser (1979) found the experimental science 6 months after the beginning of the school year significantly more favourable than control students perceptions on several dimensions. Using the LEI as an independent variable, Fraser (1979) found that the experimental science students experienced more favourable changes in attitude toward science than control students. It was also found that all dimensions of the learning environment considered together accounted for a significant increase in variance accounted for in five of the science learning post tests.

The study is a meta-analysis by Haertel, Welberg and Haertel 1981. They focused on the predictability of end of course cognitive, affective and behavioural learning from mid course social psychological perceptions with the without statistical control for beginning of course measures for ability or both. The quantitative synthesis yielded 12 LEI studies of 10 data sets reporting 734 correlations calculated from a total of 17, 805 students in 823 classes from the United States, Canada, Australia and India. Three questions were proposed :

1. Which perceptions (of the 15 sub scales within the LEI) are most productive.
2. What learnings (cognitive, affective or behavioural) are most predictable.
3. How does the predictability vary across such factors as grade level of students subject matter and methodological characteristics of the (12) studies.)

In response to these questions Haertel et. al (81) found the following :

1. The positive sub scales were cohesiveness, satisfactions, task difficulty, formality, goal direction, democracy, environment and competition, the negative subscales were cliqueness, speed, apathy, favouritism, disorganisation and diversity.
2. Perceptual aspects of the social-psychological environment of learning were consistent in the direction of their relationship to cognitive, affective and behavioural learning, outcomes, with or without statistical controls for ability, protest or both.
3. Correlations differed significantly across perceptual scales, units of analysis, nations and grade levels.

It is important to note that the final differences need to be investigated further. Nevertheless the theoretical possibility and the incremental predictive validity of the LEI scales when measuring student to sub group to class to school as units of analysis (Fraser 1981) offer a positive approach to further research and evaluation procedures (Haertel et al 1981).

In a study, classroom learning environment of city and kibbutz Biology classrooms in Israel, Solomo Sharan and Duba Yaa Kobi (1981), compares the social climate in 10th grade biology classrooms and found two different kinds of schools in Israel. It revealed that seven out of nine scales used yielded main effects, revealing significantly higher scores of Kibbutz pupils on the three scales indicating positive classroom relationship. (Cooperation, cohesiveness, satisfaction) and consistently over scores for these pupil on four scales reflecting negative relationships and perceptions (competiton, cliquishness, favouritism and difficulty). The two scales of Apathy and classroom Disorganisation did not yield significant differences between the two groups. The competiton, favouritism and cliquishness scales revealed interaction effects indicating that kibbutz giles perceived their classrooms as more positive on these scales than did any of the other three groups. (Kibbutz boys, city boys and city girls). There were not other interactions.

The data for main effects were transformed into standard scores to permit inter scale comparisons, Kibutz pupils perceived their classroom as far more cohesive, much less characterised by the presence of

peercliques and less subject to teacher favouritism than did pupils in urban classrooms. A substantial difference between city and Kibutz classrooms also emerged on the scale assessing pupil satisfaction. Avi Hofstein, Rita Gluzman, Ruth Ben-zvi and David Samuel (1980) found in their study of chemistry students perception of the learning environment in high schools and vocational schools in Israel that future lab, technicians perceived their learning environment to be significantly more satisfying, formal, goal directed, organised, difficult and democreatci and less competetive and apathetic, than did high schools students. The most pronounced difference between the two groups is the type of laboratory activites they conduct and the amount of time they spend in the laboratory, There fore, it is suggested that these differences were mainly the result of this instructional treatment. It does appear however, that the laboratory is and satisfying environment in which students can work and learn freely and less competitively.

Although the future lab, technicians found the learnig environment more satisfying and goal directed they found this environment more difficult. It is seen that future lab, technicians found their learning environment less competitive than the group of high school students. The future lab, technicians who study chemistry for their future carrier found their learning environment to be significantly more goal-directed and less apathetic.

Learning Environment

Bloom 1964 setforth the theory that the introduction of the environment as a variable makes a mojour differences in man's ability to predict the nature status of human characteristics. His review of the research led him to both general intelligence and school achievement among these variables influenced by the environment. Here speciafically, by hypothesised that while environments colud block and reord certain developments in a individual, it was likely, althourh less clear, that environment also could facilitate and acelerate these developments. Further, it was impossible for him to cite any study in which the impact of the environment was identical for all individuals in the environment. However, he did find evidence for the contention that environments exert the greatest effect on a characteristics at their periods of most rapid change.

Maslow (1970) Similarly recognised the importance of environmental forces as determiners of behaviour, asserting that human motivation rarely actualizes iftself in behaviour except in relation to the situation and to other people. He furthe suggested that individuals create their barriers as well as their values. Thereby setting limits to their behaviour as a point of view highly compatible with Brock overs' concept of the functional limit.

Research concerned with the effects of environments in school achievement exhibited a variety of approaches to the environment. Among the most frequent where those which dealt with the physical environment only or with various organizational or social pattern within the school such as open space VS self-contained facilites, old VS new schools buildings, segregation VS integration. However, none of these stressed the concept of the school class as a social system. Kristssire (1972) reported varification of the relationship between achievement of sixth grade students and environments perceived as being favourable. Both cuniff (1971) and Sallade (1972) explored relationships between self esteem and perceptions of the educational environment and both reported generally positive results. Sussman (1972) employed a modified version of the LEI to establish correlation between certain environment scales and the self concepts of junior high school students with learning and adjustment problem.

2.2.2 Studies done in India

J.S. Padhi made "A comparative study of classroom environment in 4 types of schools".

The study is aimed at comparing the classroom environment in schools under different types of management i.e., Aided schools, unaided schools, Government schools, Central and State and Municipal Corporation Schools.

In this study, the tools ICEQ developed by Rental and Frazer (1982) was used for measuring the student perception of their classroom environment. The schools sample consisted of 15 secondary schools of Orissa. The schools were selected using stratified random sampling procedure. The student sample included 636 (379 boys and 257 girls) of IX of aided schools (173), unaided schools (116), State Government Schools (224) and municipapl corporation schools (123). The study was cross sectional in nature and adopted the descriptive research method of causal comparative type.

comparative type findings

1. The difference in CES scores of the students coming from municipal schools with unaided and aided are not significant.
2. T: values of personalisation, scores are significant at 0.01 level irrespective of all the schools except municipal and unaided school students.
3. All the four schools students differ in their participation scores at 0.01 level.
4. In independence scores student of (i) Municipal (ii) unaided schools do not differ significantly.
5. Investigation scores are significantly different among all the 4 types of school students at 0.01 level.

Rampal Singh (76) made a study on the “Achievement as a function of pupil perceived learning environment of the class”.

The Objectives of the study are

1. To study the kind of socio-emotional climates of some higher secondary schools.
2. To explore the degree of relationship between socio emotional climate of the classrooms and pupils academic achievement.
3. To ascertain the predictive power of learning environment.

The tools used for the study are (1) LEI (2) academic achievement of students was assessed by an objective type test in Hindi language the marks secured by these students at their final examination in Hindi subject conducted by Board of Secondary Education. (iii) Group test of Mental

Abilities

This study covered higher secondary schools of 83 sections of class IX. From each section 9 students were again selected. It included 50 male and 33 female teachers, 78 urban and 5 rural teachers, 70 Government and 12 private management teachers, & 512 students.

Findings

1. It is inferred from the results that students learn more if the class is more cohesive.

2. It indicates a significant relationship between diversity and variable pupil achievement.
3. Formality is also positively related to pupil academic achievement.
4. It reveals the physical environment of the class significantly contributes to pupil learning.

Petal B.N. did a study on dimensions of classroom environment in 1987.

The objectives of the study were (i) to find out the different dimensions (factors) responsible for building classroom environment (ii) to prepare a scale to measure the classroom environment of different classrooms of secondary schools of Gujarat state and (iii) to classify the classroom environment such as open environment, Intermediate environment and closed environment on the basis of obtained score on a prepared classroom environment scale.

A pilot study was carried out on 200 students studying in Std. X of 4 secondary schools of Surat for item analysis. In the final draft there were 102 statements. It was administered to 2594 students of Std VIII, IX and X of 22 secondary schools of five districts of Gujarat State.

The major findings were

1. Classrooms were classified as open, intermediate and close in terms of the environment of the classroom, Data analysis supported variation of number of classrooms in different categories of classroom environment.
2. Data did not support the association among different categories of classroom environment with respect to area, that is rural and urban.
3. Open classrooms were maximum in South Gujarat and minimum in North Gujarat. The proportion of intermediate classrooms was almost the same in all the regions.
4. The mean C.E. scores of students of different standards differed.
5. There was a significant difference between boys and girls on C.E. scores.
6. The difference obtained on mean C.E. scores of pupils of different levels of parents education was significant.

7. The difference on mean C.E. scores of pupils whose parents occupation was service and students whose parents occupation was business was not significant.

8. There was a significant difference in mean C.E. scores of pupils belonging to 3 categories of achievement.

Kumar V. made on "A study of perception of classroom social climate with reference to prediction of Dimensions of Academic motivation of high school students in 1984.

The objectives of the inquiry were

1. To study the relationship between perception of dimensions of classroom climate and dimensions of academic motivation in high school students.
- (ii) To predict each of the 16 dimensions of academic motivation and total academic motivation on the basis of perception scores on a combinations of the dimensions or classroom social climate.
- (iii) To adapt the tools - The C.E. scale and the academic motivation inventory in Hindi.

The hypothesis of the study was that there existed a significant correlation between 9 dimensions of classroom social climate and 16 dimensions of academic motivation.

The sample of the study consisted of 1251 students of class X out of which 808 were in Government managed schools and 443 from privately managed schools. The sample included 971 boys and 280 girls. The sample students were administered the following tools. The Tricket and Moos CE scale and Moen and Dyla Academic motivation Inventory. Both these tools were adapted and then Hindi versions prepared. The data so collected were analysed with the help of multiple correlation and multiple regression techniques.

The finding of the study were

1. There were positive and significant correlations between the 9 dimensions of social climate and 14 dimensions of academic motivation.
2. There was significant correlation between total social climate and total academic motivation scores.

3. Multiple correlation of each of the 16 dimensions of academic motivation with the combinations of 9 dimensions of social climate were positive and significant.

Desai S.D. made "A study of classroom climate, pupils motivation and Academic achievement in 1979.

The major objectives of the investigation were

- (i) To study the level of classroom climate and its components.
- (ii) To measure pupils motivation, academic achievement and non-academic achievement.
- (iii) To study the relationships between classroom climate, pupils motivation, academic and non-academic achievement and socio-economic status.
- (iv) To prepare profiles with respect to classroom climate, pupils motivation and their achievement.

The sample consisted of 1555 pupils selected from 41 classes of 26 secondary schools. The research tools for data collection used in the study were the C scale of thelem, Junior index motivation of Prymier, socio-economic status scale and non-academic achievement, Rating scale constructed by the investigator. Descriptive statistics, t-test, and product moment correlation were used for data analysis.

The major findings of the investigation were

1. The level of classroom climate was positively related to pupils motivation and their academic achievement.
2. Pupils academic motivation was positively related to academic achievement.
3. Socio-economic status had no relationship with pupils classroom climate or pupils motivation with academic achievement.
4. Non-academic achievement had no relationship with classroom climate and pupils motivation.
5. Boys were higher than girls in the level of classroom climate, pupils academic motivation and pupils academic achievement.
6. Boys schools had higher mean scores of classroom climate, pupils motivation and academic achievement than mixed and girls schools.

Hirunval A, made “A study of pupils self-concept Academic motivation, classroom climate and Academic performance in 1986.

Objectives

1. To measure the levels of academic motivation self concept, classroom climate, academic performance of pupils.
2. To find out the relationships between academic motivation, self concept, classroom climate and academic performance.
3. To study the influence of age, sex, location, management types of schools on academic motivation, self concept, classroom climate and academic performance of pupils.

The sample consisted of 1031 pupils of IX of the Central schools, Missionary schools and aided schools located in ten centres of Gujarat. The tools for data collection consisted of a test for measuring self concept (who am I technique), Junior Index or Motivation for measuring academic motivation, classroom climate scale.

Findings

1. Classroom climate bore a positive relationship to pupils performance.
2. Classroom climate in urban school was better than that in rural schools.

Desales M, made “An investigation into the factors affecting classroom climate in relation to pupils development in 1978.

The main aim of the study was to investigate the factors affecting classroom climate in relation to pupils development. The sample of the study consisted of 15 English medium schools of Gujarat, Maharashtra and Goa namely, 10 schools of Apostolic Carmel, 3 schools of the convent of Jesus and Mary and two schools managed by private bodies. The tools used for the study were C scale, the C.R. trust schedule, students adjustment scale, students dependency scale, students expectancy scale, socio-scale. Socio-economic status scale, Flanders interaction analysis category system and academic and non-academic performance. The data was analysed by computing the means and S.D. of the dependent and independent variable, applying t-test to each of the variables in order to investigate the significance of the difference of the means and computing the correlation matrix so as to study the inter relationships between various variables.

Findings

1. Every classroom had a unique climate. The mean climate scores of the thirty classrooms ranged from 104 to 166.
- (ii) Classroom having the same climate scores had different authenticity, legitimacy and productivity scores.
- (iii) Pupils from a higher class climate were better adjusted than pupils from a lower class climate.
- (iv) Pupils in high class climate were more independent than those in low climate.
- (v) A classroom with a better climate had fewer stares and isolates and consequently a lower class integration index.
- (vi) The better the social relationships in a class, the higher was the class climate.

Saxena, A.B. made a study of the influence of some selected aspects of school learning environment on student characteristics, 1983.

The major objectives of the study were

1. To explore those learning environment variables which have a bearing on the development of selected student characteristics and to study the influence of these variables on student characteristics namely general mental ability, school achievement, achievement motivation and the extent of their participation in co-curricular activities.

A sample of 1200 students was randomly drawn from 24 higher secondary schools of class XI of Bhopal division which comprised 700 boys and 500 girls. The influence of 17 learning environment variables was studied on student characteristics.

The five tools used for the collection of data were

- (i) Jyoti's (1972) General Mental ability test
- (ii) Prayag Mehita's (1969) Achievement motivation Inventory
- (iii) Anderson's (1973) LEO consisting 17 LE variables
- (iv) The co-curricular activities index provided and
- (v) The co-curricular activities participations.

Major findings of the study were :

1. The environmental variables of cocurricular activities provided, educational facilities provided, coherence, environment democratic climate, satisfactions, competitiveness and speed correlated significantly at 0.01 level with student characteristics.
2. T. ratios indicated that rural girls obtained significantly higher mean scores on general mental ability, school achievement and achievement motivation as compared to the rural boys on all these characteristics.
3. The analysis in respect of pupils participation in cocurricular activities indicated the main effects of the variables of residence.
4. The learning environment variables were categorized into 4 components by factors analysing the data. The four learning environment variables included class organisation, democratic principles and group functioning while these three components contributed to the growth of specified student characteristics, the fourth component that is, alienation from school appeared to be affecting adversely the development of student characteristics which were studied.

Saxena S.B. made a study of the influence of environment handicaps upon the logical thinking ability of children in 1985.

The main objectives of the study was to find out whether advantaged environmental conditions facilitated and disadvantaged environmental conditions interfered with the development of logical thinking ability of children. The environmental factors included for this study were parents education, occupation and income and the provisions of certain physical facilities to their children in their schools. The main focus of the study was on logical thinking ability but, in addition to this, three other reasoning abilities, namely additive classification ability, logical reasoning ability and creative thinking ability were also studied in order to obtain the factors structure of the logical reasoning abilities for the advantaged and disadvantaged categories of children.

The study was conducted on 400 students (200 boys + 200 girls) studying in classes III to VI and in the age range of 8 to 11 year. These sample was randomly drawn from 10 school of M.P. with varying degrees of physical facilities. The tests used for the collection of data were.

- (i) Logical thinking ability test.
- (ii) Piaget's tests of additive classification ability.
- (iii) Mehdi's test of creative thinking ability.
- (iv) Raveri's progressive matrices.

Statistical techniques included correlational analysis including canonical correlation analysis of variance and factor analysis to determining the factor structure of logical reasoning abilities.

Conclusion of the study were

1. Logical thinking ability was found to be correlated with additive classification ability, logical reasoning ability and creative thinking ability.
2. The environmental handicap significantly differentiated the advantaged and disadvantaged children in respect of their LTA, ACA was found to be in favour of the advantaged group.
3. No significant sex difference were found between the advantaged and disadvantaged groups with respect to their LTA, ACA and CTA.

Munstry N.S. made "An investigation into the classroom climate of secondary schools in the context of pupils with the following objectives worked in 1986.

1. To study the class room climate of the different schools of Khada District.
2. To study the classroom climate components in relation to sex, cognitive, attitudinal and behavioural characteristics of pupils and
3. To study the effect of interaction among these various independent variables (sex, cognitive ability, attitudinal and behavioural traits) on classroom climate.

The tools used for collecting the data were the General ability test by M.T. Patel, the JIM scale (Junior index Motivation scale), the Extroversion - Introversive Inventory by Anderson and Walberg adapted in Gujarat.

The 2 x 2 x 2 x factorial design was used for study and analysis of variance was used for verifying hypotheses.

Findings of this study were

1. The low intelligence group of student scored higher than the high intelligence group of student on cohesiveness.
2. Extroverts and highly motivated group of pupils scored higher in the cohesiveness dimension than introverts and low motivated pupils.
3. The lower intelligence group showed higher score on diversity than, the higher intelligence group.
4. The high intelligent group scored significantly higher on the speed dimension of classroom climate than the low intelligent group.

J.S. Malik (1988) - Learning environments of successful science teachers - A study of student perception.

Objectives of the study are

1. To identify successful and unsuccessful science teacher on the basis of criteria evolved by the investigator.
2. To compare the learning environments of successful and unsuccessful science teachers as perceived by their students.

Sample of this study consisted by 255 science teachers drawn from seventy two higher secondary schools of 7 major cities of Rajasthan. The student sample consisted of 3450 boys and girls who were having their studies in class XI under the guidance of these science teachers.

The following two research instruments used

1. Science teaching success Rating scale.
2. Learning environment inventory.

Finding of the study are

- (a) The classes of successful teachers were more cohesive than the classes of unsuccessful teachers.
- (b) Successful science teachers were regulated by some formal rules.
- (c) The classes of successful science teachers were perceived to have better physical environment than the classes of unsuccessful teachers.
- (d) The successful science teacher has goal clarity in the classes.

- (e) Students show enjoyment with class work.
 - (f) Unsuccessful science teachers have scored higher than successful teacher on speed and friction revealing thereby that their classes were fast moving and there was tension and awarding among students.
 - (g) Higher scores of unsuccessful teachers than successful teachers on certain LEI dimensions, Favouritism, Difficulty, Cliques, Disorganisation and Apathy.
- Dholakia B.B. made a study of classroom climate and pupil growth, construction of tools and survey in 1985.

The broad objectives of the study were

1. To construct a tool to measure classroom climate and battery of tools to study pupils growth.
2. To survey the classroom climate
3. To study pupils growth at the macro and micro levels.
4. To draw cumulative profiles, for classroom climate
5. To identify parameters for diagnostic and prognostic utility and
6. To enunciate a practical instructional strategy for a typical Indian classroom.

The sample consisted of 75 pupils of class Xi of two secondary schools of Baroda. The sample size varied in the case of construction of various tools. For surveying the classroom climate, the sample was drawn from class X of 14 Secondary schools of Baroda. The researcher constructed tools to measure pupils anxiety, motivation, adjustment, fulfilment and a tool to measure classroom climate.

The major finding of the study were

1. The traits of Anxiety and motivation in pupils did not change with time where adjustment and fulfilment with time.
2. Pupils felt that their teachers performed their duties with no sense of belongingness and did not one for than pupils expectations and aspirations.
3. Pupils were found to be punctual but learnt the subject rather mechanically without knowing the underlying purpose.
4. Parents seldom made a serious inquiry into pupils growth.

5. The pupils complained that properly drawn assignments were not given, examinations were not systematic, laboratory experiments were absent.
6. The school authorities did not recognise the value of projects and identification of talent.
7. Pupils showed confirmed trust in classroom teaching and they enjoyed going to school.

The tools developed in this study can be fruitfully used by schools to study classroom climate, pupils motivation, anxiety, adjustment and the feeling of fulfilment and to apply remedial measures.

Verma O.P. made a sociological study of four major districts in Delhi schools in 1982. The objective of the study was to find out various districts related to classroom climate.

Sixty senior schools of Delhi were selected for the study. For the purpose of collection of data, Tools and techniques employed were questionnaires, interviews, case study, observation and critical incidents technique.

The findings of the study were

1. Clique formation was multi dimensional, teachers professional organisations were not effective because of their political affiliations.
2. The urban schools had a better classroom climate than the rural schools, indifference on the part of principals, teachers and parents, being responsible for it.
3. The male and female teachers were equally unable to provide a conducive climate.

Verma RPS made a study of school learning as function of socio-emotional climate of the class in 1977.

The objectives of the study were

1. To compare the socio-emotional climate prevailing in the schools of rural and urban areas so as to develop more objective knowledge and understanding of the schools functioning in urban and rural areas.
2. To compare the socio-economic climate of the classes taught by male and female teachers so as to identify the effect of sex on the class room climate.

3. To examine the effects of classroom climate on the behavioural activities of students in the classroom
4. To investigate the relationship between the socio-emotional climate of classroom and the academic achievement of pupils.
5. To identify and analysis the patterns of classroom climate.
6. To develop pupils perception rating scale for measuring the socio-emotional climate of the classroom as generated by certain patterns of teacher behaviours.

The sample consisted of forty one higher secondary schools selected randomly from 46 districts of Rajasthan. From the sampled schools, 1294 students (974 boys 430 girls) were selected by the stratified random method. The tools used were Jalota's verbal group test of general mental ability, Teachers, classroom, Behaviour social matrix test, Attainment tests in social studies, and General Science and socio-economic status scale, Mean, S.D. Skewness, Kurtosis, product moment correlations, analysis of variance, multiple correlation, partial correlation, multiple correlation, were employed to analysis the data.

The findings of the study were

1. Mean difference for emotional warmth, fairness, acceptance, trustfulness, communication, achievement and IQ variables were significant.
2. The rural school's classes showed slight superiority over the urban schools classes as far as acceptance, trustfulness, adaptability and emotional relationship, dimensions of the classroom climate were concerned. The academic achievements of the urban-rural schools were at par but there was significant difference in the intellectual standards of the rural and urban pupils.
3. The mean difference for all the eight dimensions of the classroom climate to adaptability and emotional relationship were significant in favour of the classroom of the primary schools. The classes of privately managed schools had a more learning - conducive climate.
4. The socio-emotional climate of the classroom not only predicted and influenced the pupils academic achievement but also affected his classroom behavioural development. The classroom climate

was positively correlated with studiousness factor of the socio-metric test. The classroom climate was negatively correlated with the behavioural development of the pupils in the class and also with the mischievousness factor.

5. The pupils classroom behaviour was positively correlated with their academic achievement. All the components of the studiousness factor were positively correlated and the mischievousness factor and its components were negatively correlated with the pupils academic achievement.

Sundaralakshmi T.K. made a study on Instructinal stratigies effects osn classroom climate in 1981.

The objectives of the study the classroom climate in terms of variations in group characteristics caused by each of the instructinal strategies.

1. To find out the relative effects of the strategies on the classroom climate.
2. To study the effects of each strategy on the pupils growth in terms of academic performance, need, development, test anxiety, social relationships initiative and classroom trust, and to findout the relative effects of the starategies on the pupils growth when interchanged.

The experiment was conducted on two matched groups of IX standard in Vidya Kury High School, Baroda. The study was conducted for one full academic year consisting of two terms. In the first term one group consisting of thirty five pupils was treated with the teacher facilitator strategy and another group consisting of forty pupils was treated with the teacher - initiator strategy. In the second term the strategy was interchanged. Data was collected with the help of social acceptance scale, classroom trust scale, adolescent initiative questionnaire and achievement motivation inventory.

The major findings of the investigations were

- (a) Both the strategies, tended to have positive influences on certain attributes of the classroom climate and the pupils growth as academic performance, initiative, classroom cohesiveness and acceptability and classroom trust through in varying degress.
- (b) Both the strategies did not affect need achievement significantly.

- (c) The teacher - initiator strategy had a positive and greater influence on academic performance and initiative than the teacher facilitator strategy.
- (d) The teacher facilitator strategy had comparatively greater positive influence on classroom trust, acceptability and cohesive-ness.
- (e) Both the strategies indicated variations in their influence on test anxiety each group.

Ekambaram. B made a study of an experiment in creating an effective school climate in 1980.

The major objectives of the investigations were

1. To study the effectiveness of the inputs in bringing about changes in respect of organisational climate leadership behaviour and teacher morale.
2. To study the effects of changed teachers behaviour on vaiables such as pupils academic motivation, classroom trust, adjustment, dependency, independency, initiative, activity level, classroom integration and classroom climate.

The study employed pre test, post test experimental control group desing. The sample consisted of three groups of teachers (two experimental group and once control).

The major findings of the iventigation were

- (i) Pupils academic motivation level was significant at 0.01 level in the experimnetal group.
- (ii) The classroom climate components such as productivity legitimacy, authenticity and total classroom climate showed significant mean gain scores with respect to experimnetal group.

Thangam. N made an Experimental study of classroom climate in 1980.

The objectives of the investigations were

1. Study the effects of changed behaviour on varieties such as pupils academic motivation, classroom trust, adjustment and expectancy and to study the effectiveness of the psychological education inputs in bringing about the change with respect to the major components

of psychologies development namely, goal setting behaviour, risk taking behaviour and perception of self image.

The sample for the study included 21 teachers 304 pupils belonging to the same age group, academic level and socio-economic status. The study employed pre test - post test design with tow experimnetal group and one control group.

The tools used to collect data were FIACS adjustment sclae, classroom trust scale, student dependency sclae, students Activity scale, pupils academic motivation scale classroom climate scale and achievement tests.

The major findings of the investigations were

1. In both the experimental groups pupil academic motivation level, adjustment, classroom treust, activity level, adjustment, students expectancy level were increased.
2. There was positive gain the classroom climate components, namely, productivity, legitimacy and authenticity and in total classroom climate too, in both the experimental groups.
3. The change in teachers verbal behaviour led to an increase in pupils academic achievement in all the subjects and in the average achivement. The increase was more in experimental group-I. The post test measures indicated that the students recongnised the teacher as a competent person who could help and guide them to learn they perceived their role as learners placed in a specific environment and the school as a place for social interaction among themselves. Upadhyay S.N. made the study of student satisfactions in classrooms.

The objectives of the study were to findout

1. Whether there were any differences in environemtnal and satisfaction patterns of various categories of classes.
2. Whether there was any significant relationship between certain dimensions of classroom environment and some aspects of students satisfaction.

The sample consisted of 465 classes of all the colleges Ravishankar University. The unit for the sample was the class not the student about twenty five students were selected from each class and wherever the

number enrolled was lecs, the entire class was sampled. The tools used a classroom environmental scale and the students satisfaction scale developed on the basis of the ideas of Moon and Trickett by the investigator.

The study releaved

1. There were no significant differences in the environmental as well as satisfaction pattern of Government and private colleges, co-educational and girls colleges, undergraduate and post graduate classes and rural and urban colleges.
2. When classes from all types of colleges were treated together, all the nine dimensions of classroom environment were correlated to eight aspects of students satisfaction, which implied that there was no special relationship between a specific dimnesion of environment and a specific aspect of satisfaction.
3. There was not much difference in the correlation patterns of Govt. and Private Colleges.
4. Classes from Co-educational colleges did not differ from all the classes taken together in respect of classroom environment and students satisfaction.

Saints, made an experiment on open learning in 1980

The objective was to rpovide and open learning environment to children to enable them to develop at their own face.

Children from waying back grounds were enrolled the entire school met in a large hall which contained a variety of play equipment as well as display material for differenct subjects. Though the children were encouraged to participate in the activities organized by the teacher, they were allowed to work in their own.

The principiles on which the experiment was under takne were : great freedom to the learn and to teachers to plan learning experience, self pacing in learning, individual attention, co-operative effort in learning, ungraded structure, encouragement of self learning, less emphasis in teaching and more on learning, bilingual programme, the child's progress to be evaluated according to his own ability rather than on the basis of examination and close to involvement of parents.

The case studies of the children released

1. There were marked differences in their interest and participation in activities, those who earlier disliked school and had even left the previous schools began enjoying coming to school.
2. There was significant development as regard social skills both in the school as well as home.
3. Streaming to other schools was smooth in the case of children who had been in the open learning environment.

By reviewing all the studies mentioned in the above pages. It revealed that the works dealt with classroom environment on the high school +2 level - college level. A few studies are done at the primary stage. The researcher identified the area which is not covered by the above studies and felt it is needed to take up this present study at the primary stage.

What we know about learning has increased dramatically over the last 20 years. MRI scanning that allows us to see inside the brain as learning occurs, and landmark studies such as John Hattie's Visible Learning (Hattie, 2008) mean that we now have a much better idea of how learning occurs.

As a result of these developments and others, we know that quality learning is a combination of the following elements.

1. Personalised learning no two individuals learn in the same way, nor do they bring the same prior knowledge to a learning experience. The way we learn is as unique as our fingerprint.
2. Socially constructed learning (Johnson, 1981) the collaboration peer tutoring and reciprocal teaching that occurs when students work together results in a deeper understanding of the material being covered.
3. Differentiated learning (Bloom, 1974) the prior knowledge we all bring to a task means individuals require different levels of challenge, pace, content and context.
4. Learning that is initiated by students themselves (Ramey & Ramey 2004), typically when a student initiates a learning experience or exploration they learn more.
5. Learning that is connected to the physical world and authentic contexts, children learn through interaction with others and the

physical world (Malone & tranter, 2003). Learning about pond ecosystems is more powerful if students visit a pond in addition to learning about them in a classroom or textbook.

Most of New Zealand's school buildings were built in a time when direct instruction was considered the only pedagogy that resulted in effective learning. Factory style learning (where all students learn the same things, at the same time, in lock step fashion) has largely disappeared from our classes. However the actual classrooms largely remain as they were originally designed, and still retain the suggestion of factory style learning.

Chapter-3

Procedure and Methods

3 INTRODUCTION

As discussed earlier the research was concerned with the effect of classroom learning environment on the academic achievement of the pupils. The study was also intended to find out the relationship between students perceptions and teachers perceptions on learning environment and its impact on academic achievement. The present chapter is devoted for a discussion of the research procedure adopted for the study. The method of this study, the sample selecteds the tools employed for the collection of data and statistical devices aplied for processing the data are discussed in the following paras.

3.1 METHOD OF RESEARCH

The present research was intended to study the effect of classroom learning environment on the academic achievement of pupils in upper primary classes VII. The researcher adopted survery type of method to study this problem. The survey type of research method is suitable for this study. It is a method for collecting and analysing data obtained from large number of respondents representing a specific population collected through highly structured and detailed questionnaire. So, the researched identified and adopted this method of research among other types of research methods.

3.2 POPULATION

The population of reserach consists of teachers and students of upper primary classed in West Godavary District of Andhra Pradesh. All types of schools managed by Government, Zilla Parishad Municipality and Aided High Schools have been included in the sudty.

The following table shows the number of High Schools run by the different managements in West Godavary Dist.

Table-1: Table showing the number of High Schools in West Godavary.

S.No.	Name of the Management	No. of Schools
1.	Government	38
2.	Zilla Parishad	235
3.	Municipality	31
4.	Aided	52
		356

The schools were spread over in the district of West Godavary. The schools again are classified into rural and urban. Almost all the schools run by Govt, Aided are located in the Urban Centres while over 80% of Zilla Parishad schools are located in rural areas.

3.3 SAMPLE OF RESEARCH

In view of the complexity of the sample which was at more than one level i.e. the district, management, the rural / urban and sexwise etc., the method of Random sampling was adopted.

For the purpose of stratification a list of schools was obtained from the office of the District Educational Officer, West Godavary District. Then the schools were seperated management wise and the number of schools under each category taken into consideration for stricking out the percentage of each category to the total number of schools in the area.

The following table gives the total number of schools selected for samples. The list of schools chosen under the sample is presented in the Appendix - 1.

Table-2: Table showing the No. of schools selected for the sample.

S.No.	Management	Total No. of schools in the category	Total No. of schools	% of schools chosen
1.	Government	4	49	13.76%

S.No.	Management	Total No. of schools in the category	Total No. of schools	% of schools chosen
2.	Zilla Parishad	31		
3.	Municipality	6		
4.	Aided	8		

13.76 percent of the schools were selected from all the managements for the collection of data.

In view of the constraints of the time and resources the investigator select 49 High schools, from different managements out of 356 high schools for the present study thought it is appropriate to select 49 schools representing various managements as the sample for the present study. There are 356 high schools handling VII classes in the area. 13.76 percentage of 356 would come to 49. So it was decided to select 49 schools representing all the four managements. The sample schools covered the entire district including Towns and Villages, there by covering urban and rural parts of the district. The data was collected from teachers of 49 schools and from students of 39 schools in West Godavary District.

3.4 SAMPLE OF TEACHERS

Two seventh class teachers Social studies & english from different managements were selected for the investigation.

The following table shows the number of schools and teachers under different managements.

Table-3: Table showing the number of schools and teachers.

S.No.	Name of management	No. of Schools	No. of teachers
1.	Government	4	6
2.	Zilla Parishad	31	51
3.	Aided	8	13
4.	Municipality	6	10
		49	80

An attempt was made to include lady teachers in the sample, but as far as the co-education institutions were concerned the proportion of lady teachers were not maintained because most of the Zp High schools are co-educational institutions but they seldom have lady teachers in their schools. The following table gives the total number of schools taken as sample with teachers management wise and sexwise.

Table-4: Table showing the sample of teachers management wise.

S.No.	Management	No. of	Male	Female	Total
1.	Government	4	3	3	6
2.	Zilla Parishad	31	41	10	51
3.	Municipality	6	5	5	10
4.	Aided	8	6	7	13
		49	55	25	80

The sample covered the teachers with graduation and postgraduation qualification. The following table shows the No. of teachers graduates and post graduates.

Table-5: Table showing the sample of teachers qualification wise.

S.No.		Graduates	Post Graduates	Total
1.	Teachers	57	23	80

The sample also covered the teachers who had different age groups i.e. below 30 years of age and above 30 years of age.

Table-6: Table showing the sample of teachers - Age wise.

S.No.		Above 30 years	Below 30 years	Total
1.	Teachers	72	8	80

The sample also covered the teachers who have experience below 5 years and above 5 years. The following table gives their details.

Table-7: Table showing the sample of teachers- Experience wise.

S.No.		Above 30 years Experience	Below 30 years Experience	Total
1.	Teachers	72	8	80

The sample also covered the teachers who handled classes having strength of below 40 students and above 40 students.

Table-8: Table showing the sample of classrooms in which class strength is above 40 and below 40

S.No.		Above 40	Below 40	Total
1.	Teachers	37	12	49

Sample of teachers also covered the teachers in different cadres. The following table gives the details of teachers designation wise.

Table-9: Table showing the sample of teachers designation wise.

S.No.	Designation	Total
1.	Secondary Grade	50
2.	BED Ass.	30
	Total	80

The sample of teachers also covered the teachers working in rural and urban areas the following table gives the details of teachers locality wise.

Table-10: Table showing the sample of teachers locality wise.

S.No.	Locality	Total
1.	Rural	32
2.	Urban	7
	Total	49

3.5 SAMPLE OF STUDENTS

From each of the school selected for the study, 20 students who selected for the study duly taking roll no' in order 1, 3, 5 or 1, 5, 10

from the attendance register. Both boys and girls who included from each school from the collection of data. Researcher applied random sampling technique in which orderly selected the pupils.

The following table gives the number of schools and students included in the sample.

Table-11: Table showing the sample of Boys and Girls students

S.No.	Sex	Total
1.	Boys	356
2.	Girls	416
	Total	772

The sample of students thus covers all the categories of managements and boys and girls.

Thus the sample of students covered the entire gamut of schooling system covering urban and rural areas and also boys and girls. The following table shows the number of schools and students included in the study.

Table-12: Table showing the sample of students and schools in Rural and Urban Areas.

S.No.	Category	No. of Schools	Students
1.	Urban	14	269
2.	Rural	25	503
		39	772

3.6 TOOLS EMPLOYED

Three tools were employed in this research for the collection of data one for teachers and other two for students. The teachers were issued with learning environment inventory questionnaire while students were issued the learning environment inventory questionnaire and a format for collection of marks of the pupils involved in the study.

3.6.1 Learning environment Inventory questionnaire for Teachers, (LEI)

LEI questionnaire was prepared and used by the Barry J. Fraser and Gary J. Anderson who are experts in this kind of works. The tool for the present study was taken from their works presently used tool was prepared by the researcher basing on the said questionnaire. It was modified according to the conditional prevalent in the schools of Andhra Pradesh. Fraser & Anderson's LEI questionnaire was adopted for the present study. The researcher has made appropriate modifications for the above LEI to suit the local conditional. This tools was administered to the teachers are handling VII class in these schools.

This tools was first tried out by issuing twenty teachers. This tool consisted of 115 items under 15 dimensions.

The researcher took care to have 7 items in every dimension. 10 items were removed from the questionnaire due to lack of validity. Then the questionnaire was administered to the teachers handling to VII class english and social studies subjects. A three point scale was used and marks were awarded 1,2,3 to the positive items and 3,2,1 to negative items.

3.6.2 Learning Environment Inventory Questionnaire for students

This tool was also prepared by the researcher basing on the questionnaire of the fraser and Anderson keeping in view of the local conditions prevalent in the area. The tool consisted of 120 items by the a pre-test was conducted with the VIIth class students. After the pre-test 15 items were deleted from the LEI due to lack of validity. The researcher took care to maintain equal (7) items in each dimension. It had 15 dimensions. Later it was administered to the students of VII class. Twnty questionnaires were given to each class from the school selected. These questionnaires were issued to the students of VII class according to their roll nos. In order 1,3,5,7 or 1,5,10 to a maximum of 20. The details of dimensions and no. of items are given in the table given.

Table-13: Details of the Dimensions and No. of items

S.No.	Name of the Dimension	No. of items	Example of the items
1.	Cohesiveness	7	All students knwo each other very well
2.	Diveristy	7	The class has students with many different interest
3.	Formality	7	The class in rather informal and few rules are imposed
4.	Spped	7	Students do not have to hurry to finish their work
5.	Material environment	7	The books and quipment student need or want are easily available to them in the classroom
6.	Friction	7	Certain students in the class are responsible for petty quarrels.
7.	Goal Direction	7	The class knows exactly wthat it has to get down
8.	Favouritism	7	Every member of the class enjoys the same previlages
9.	Difficulty	7	Students in the class tend to find the work hard to do
10.	Apathy	7	Members of the class do'nt care what the class does
11.	Democracy	7	Class decision tend to be made by all the students.
12.	Cliqueness	7	Certain students works only with their close friends
13.	Satisfaction	7	There is considerable dissatisfaction with the work of the class.
14.	Disorganisation	7	The class is well organised and efficient.
15.	Competetiveness	7	Students seldom compete with one another.

3.6.3 Achievement Test - Marks

Marks of those students who filled the questionnaire were collected from the school involved in the study. Marks of social studies and English subject were collected in the proforma given. Half yearly examinations marks of pupils of VII class were collected from the schools.

3.7 ADMINISTRATION ON TOOLS

The researcher personally visited the sample school to observe classroom situation in the schools and talked to the teachers and students about the research work. The questionnaires were given to the teachers and students for filling in. Then the researcher collected the half yearly examination marks by getting the permission from the Head master for this study.

Thus the tools were administered and data collected for analysis and interpretation.

3.8 THE STATISTICAL TECHNIQUES USED:

The data collected from different variables involved in the study is treated statistically by computing mean values standard deviation values, mean deviation, critical ratios, correlations and percentages of acceptance to draw suitable conclusions.

The statistical measures of means, standard deviation, mean deviation and critical ratios were used for finding the difference in the opinion of teachers with regard to such variables as sex. Locality, age, qualification, experience, strength of students, Designations subject and management in classroom learning environment, on the problem of investigations. Again to study the variable dimensions of classroom learning environment, the opinions of teachers and students were converted into percentages item wise and dimension wise.

To know the effect of classroom learning environment on academic achievement of pupils, the investigator planned to apply the product moment coefficient of correlation.

By applying the above statistical techniques the collected data was analysed and interpreted to draw certain conclusion on the study.

3.9 LIMITATIONS OF THE STUDY

The present research is designed to study the effect of classroom learning environment on the academic achievement of the pupils. The

study was restricted to teachers and students perceptions on various dimensions of classroom learning environment. The perceptions of other members in the school system such as administrators, inspectors of schools and parents, environment of tribal schools, the impact of various schemes implemented in Andhra Pradesh on classroom learning environment, Role of Head masters for better classrooms environment are not taken into account in this study.

The study confined only to see the relationship of dimensions of classroom learning environment with academic performance only, other indicators of classrooms success were not studied.

The present investigation covered only Government, Municipality, Zillaparshad and Aided High Schools in West Godavari District Private Unaided high schools were also needed to be studied. The elementary schools and upper primary schools under different management were not included in the present study. Most of the upper primary schools did not have sufficient staff members to handle classes. So high schools having sufficient members were selected.

The above mentioned elements of school system are not covered due to lack of sufficient time and resources.

Further the sample of the study is limited to VII class of 49 High schools of West Godavari District

Chapter-4

ANALYSIS AND INTERPRETATIONS

In the chapter III the researcher gave a detailed account of the type of study, tools of study and administration of tools. After the collection of the data the next step is to analysis the data and arrive at the findings. In this chapter the data collected through the three tools is analysed tool wise and presented below :

4.1 DISCUSSION ON LEI FOR TEACHERS

The data collected through this inventory from teachers is shwon in the follwoing table by giving statistical treatment.

Table-14: Table showing the mean, MD, SD and CR of the sample.

S. No.	Variables	AM	SD	MD	SE	CR	Signi-ficance	
1.	Sex	Male	235.3	13.44	1.	3.34	0.359	not sig
		Female	236.5	14.07				
2.	Locality	Rural	234.1	11.93	1.9	3.11	1.61	not sig
	Urban	236	11.45					
3.	Age							
	Above 30 yrs	235.3	12.58	2.42	5.50	0.44		not sig
	Below 30 yrs	215.5	15					
4.	Qualification							

S. No.	Variables	AM	SD	MD	SE	CR	Signi-ficance	
	Graduate	235.63	11.5	2.2	3.08	0.71		not sig
	Post Graduate	233.43	12.85					
5.	Experience							
	Above 5 yrs	234.7	12.29	0.45	5.32	0.08		not sig
	Below 5 yrs	234.25	17.70					
6.	Strength							
	Above 40 std	235.82	12.29	4.49	3.73	1.2	not sig	
	Below 40 std	231.33	14.38					
7.	Designation Sec	236.4	14.05	5.9	2.6	2.26	not sig	
	BED	230.5	9.28					
8.	Subject	Eng	234.33	14.05				
	S.S	237.52	15.93	3.19	3.49	0.9	not sig	
9.	Management							
(i)	Municipality	233.5	16.36					
	Aided	231.04	15.73	2.46	6.78	0.36	not sign	
(ii)	Municipality	233.5	16.36					
	Aided	231.04	15.73	2.46	6.78	0.36	not sign	
(iii)	ZP	234.47	14.11					
	Aided	231.04	15.73	3.43	4.78	0.72	not sign	
(iv)	ZP	234.47	14.11					
	Govt.	237.16	10.30	2.69	4.64	0.57	not sign	
(v)	ZP	234.47	14.11					
	Govt.	237.16	10.30	2.69	4.64	0.57	not sign	
(vi)	Aided	231.01	15.73					
	Govt.	237.16	10.30	6.12	6.05	10.0	not sign	

The CR values of above said variables i.e., sex, locality, age, Qualification, Experience, strength, Designation, Subject and

management are not significant at 0.05 level. It shows that there is not significant difference in opinions expressed by teachers with regard to the variables concerned classroom learning environment. Both the groups under each variable expressed similar opinion on the classroom learning environment.

4.2 DISCUSSION ON LEI FOR STUDENTS

The data collected through this inventory from the students is shown in the following table with statistical treatment given :

Table-15: Table showing the Mean, SD, MD and CR of the sample

S.No.	Variable	AM	SD	MD	SE	CR	Significance
1.	Locality						
	Rural	234.31	11.8	0.22	0.25	not sig	
	Urban	231.53	11.7				
2.	Sex						
	Boys	234.94	11.29	1.29	0.84	1.54	not sig
	Girls	233.65	11.97				

CR values of above said variables i.e., locality and sex are not significant at 0.05 level. It shows that there is no significant difference in the opinion expressed by students with regard to the variable concerned on the classroom learning environment. Both the groups under each variable expressed similar opinions on the classroom learning environment.

Table-16: Table showing the Mean, SD, MD and CR values of teachers & students

S.No.	Variable	AM	SD	MD	SE	CR	Significance
1.	Teachers	48.5	6.3				
	Students	49.3	10.3	0.8	0.8	1.00	not sig

The obtained CR value of 1.00 is not significant at 0.05 level. It shows that there is not significant difference of opinions expressed by teachers and students about classroom learning environment. Both teachers and students expressed similar opinions on classroom learning environment.

4.3 PRESENTATION OF RESULTS AREA WISE AND ITEM WISE

To study the various components of CLE the investigator converted opinions expressed by the teachers and students in terms of % area wise and item wise and prescribed in the following tables. Basing on the % of acceptance and rejection, the researcher made certain observations and presented them under.

1. Cohesiveness

Table-17: Table showing the percentage of acceptance expressed by the teachers sample on the area cohesiveness.

S.No.	Statement	A	N	D
1.	Teachers provide help to backward students in completing the work	90	6	4
2.	Students of the class do favours for one another	84	11	5
3.	All the students know each other very well	65	23	11
4.	All the students of the class are friends	58	27	15
5.	Each student knows the other students of the class by their first names	40	30	31
6.	All the students of the class not organised the work together	26	26	48
7.	Students of the class are uncooperative to one another	21	17	62

Table-18: Table showing the percentage of acceptance expressed by Students sample on the area cohesiveness

S.No.	Statement	A	N	D
1.	I am close to others in my class	98	1	1
2.	Students of the class do favour one another	96	1	3
3.	All the students in the class like one another	80	5	15
4.	I know the first name of other students well	48	41	11
5.	Students of my class are uncooperative to one another	33	7	60
6.	All the students of the class are not organized the work together	24	8	68
7.	Teachers do not assist the backward children in completing the work	22	12	66

Observations

As seen from the above tables, High acceptance is observed on the following items in respect of teacher sample.

1. Assist the backward children in completing the work
2. Students of the class do favour for one another

It shows that special attention provided towards under achievers and favourable attitude among the pupils themselves respect in better classroom learning environment.

Further high acceptance is observed on the following items in respect of students sample.

1. Students are close to others
2. Students do favour for one another
3. All the students like one another

It shows that friendly relations and mutual cooperation among the pupils result in better classroom learning environment.

2. Diversity

Table-19: Table showing the percentage of acceptance expressed by the teacher sample on the area Diversity

S.No.	Statement	A	N	D
1.	The class has students with many different interests	90	10	-
2.	Some students are interested in completely different things than other students	73	15	12
3.	Students of the class has different kinds of problems	72	19	9
4.	Same type of work is allotted to all the students	49	19	32
5.	There is not difference between the groups	44	14	42
6.	Programmes are not organised properly due to differences among the students	42	16	42
7.	There is not difference in learning levels among the students	37	12	51

Table-20: Table showing the percentage of acceptance expressed by the students sample on the area Diversity

S.No.	Statement	A	N	D
1.	Teacher allotted same work to all the students	81	2	17
2.	The class has students with many different interests	78	12	10
3.	There is no difference between the groups	5	10	15
4.	Some students are interested in completely different things than other students	72	12	16
5.	There is no difference in learning levels among the students	60	16	24
6.	students of the class had different kinds of problems	56	11	34
7.	Programmes are not organised properly due to differences among the students.	30	15	55

Observations

As seen from the above table, high acceptance is observed on the following items in respect of teacher sample.

1. The class has students with many different interest.
2. Some students are interested completely different things than other students.

It expressed that students with many different interest and students interested in different things contribute to effective classroom learning environment.

This shows that students having different interests develop competitive spirit among themselves which help in better learning and better classroom learning environment.

High acceptance is observed on the following items in respect of student sample.

1. Teacher allot same work to all the student
2. The class has students with many different interests
3. There is no difference between the groups.
4. Some students are interested completely different things than others.

It is expressed that same work is allotted to all students. It is observed that students with diverse interests help in better classroom learning environment.

Observations

As seen from the above tables, high acceptance is observed on the following items in respect of teachers sample.

1. The student would be provided to show the classroom to visitors. Negative opinion is observed in case of the following item.
2. The teachers do not have understanding to make the classroom attractive.

This shows that visits by outsiders and attractive classroom help in better classroom learning environment.

Further high acceptance is observed on the following items in respect of students sample.

1. The class is bright and comfortable.
2. The teacher and we make the classrooms attractive.
3. The classroom is convenient to display.
4. The student would be provided to show the classroom to visitors.

From this it is observed that bright and comfortable classroom with display facilities and seating arrangement will help in better learning and provided better classroom learning environment.

3. Formality

Table-21 Table showing the percentage of acceptance expressed by the teachers sample on the area formality

S.No.	Statement	A	N	D
1	It is impossible to achieve classroom goals without rules	90	9	1
2.	Rules made the classroom work most successful	85	9	6
3.	The class has rules to guide the activities	83	9	6
4.	Students who break the rules are penalised	64	20	16
5.	Certain students do not observe the rules of the class	43	36	21

S.No.	Statement	A	N	D
6.	Rules are not favourable for students to follow	17	27	56
7.	The class has firm and rigid rules	11	28	61

Table-22 Table showing the percentage of acceptance expressed by the students sample on the area formality

S.No.	Statement	A	N	D
1.	We follow the rules of the class in doing the work	95	1	4
2.	Rules made the classroom programme most successful	87	8	5
3.	Students who break the rules are penalised	83	3	14
4.	We achieve the classroom goals properly by following the rules	78	10	12
5.	Certain students do not observe the rules	59	8	23
6.	The class has firm and rigid rules	35	11	55
7.	Rules are not favourable for students to follow	18	12	70

Observation

As seen from the above tables, high acceptance it observed on the following items in respect of teacher sample.

1. It is impossible to achieve goals without rules.
2. Rules make the classroom work most successfully.
3. The class has rules to guide the activities.

It reveal that classroom rules as formalities, help in realizing the goals successfully and help in better classroom learning environment.

As mention in the above table high acceptance is observed on the following items in respect of student sample.

1. We follow rules in doing the work.
2. Rules make the class work done most successfully.
3. Students who break the rules are penalised.
4. We achieve the goals properly by the following rules.

This also shows that classroom rules and formalities help in completing work successfully.

4. Speed

Table-23 Table showing the percentage of acceptance expressed by the Teachers sample on the area speed

S.No.	Statement	A	N	D
1	There is little time for day dreaming	80	10	10
2.	The students made mistakes in doing their work with speed	68	25	7
3.	Back ward students of the class are trying to do the work in time	68	21	11
4.	The work allotted to students in class in finished in time	61	22	17
5.	Students of the class concentrated on their classwork	58	25	17
6.	Most of the students could not finish their work in time	46	49	35
7.	The course material is not covered in time	17	18	25

Table-24 Table showing the percentage of acceptance expressed by the students sample on the area speed

S.No.	Statement	A	N	D
1	We do the work allotted in time	93	3	4
2.	Backward students of the class are trying to do the work in time	89	5	6
3.	We concentrated fully on the work in class	84	4	12
4.	Course material is covered in time	83	8	9
5.	There is little time for day dreaming	77	5	18
6.	Students made mistakes in doing the work in time	76	5	19
7.	It is difficulty to do some class work	36	8	46

Observations

As seen from the above table, high acceptance is observed on the following items in respect of teacher sample.

1. There is little time for day dreaming.

This shows that the entire class time is profitably used for interaction. From this it can be stated that keeping the class active in academic work help in better learning.

As mentioned in the above table, high acceptance is observed on the following items in respect of students sample.

1. We do the work allotted in time.
2. Backward students are trying to do the work in time.
3. We concentrated fully on the work.
4. Course material is covered in time.

This shows that allotted work is done in time, backward students are trying to do the work in time. Concentration on the work, covering of syllabus in time contribute for effective classroom learning environment.

5. Environment

Table-25 Table showing the percentage of acceptance expressed by the teachers sample on the area Environment

S.No.	Statement	A	N	D
1	The students would be provided to show the classroom to visitors	73	20	7
2.	The classrooms are convenient to display	65	16	9
3.	The classroom is bright and comfortable	63	21	16
4.	The equipment students need are available to them in the class	44	20	36
5.	The classroom is not convenient to do experiments	42	16	42
6.	The classroom is not sufficient to sit the students	36	15	49
7.	The teacher do not have understanding to make the classroom attractive	7	18	75

Table-26 Table showing the percentage of acceptance expressed by the students sample on the area environment

S.No.	Statement	A	N	D
1	The classroom is bright and comfortable	85	5	10
2.	The teacher and we make the classroom attractive	81	5	14

S.No.	Statement	A	N	D
3.	The classroom are convenient to display	74	5	21
4.	The students would be provided to show the classroom to visitors	73	10	17
5.	The equipment students need are available in the class	58	7	35
6.	The classroom is not convenient to do experiments	50	11	39
7.	The classroom is not sufficient to sit	21	3	76

Observations

As seen from the above tables, high acceptance is observed on the following items in respect of teachers sample

1. The student would be provided to show the classroom to visitor. Negative opinion is observed in case of the following item.

2. The teachers do not have understanding to make the classroom attractive. This shows that visits by outsiders and attractive classrooms help in better classroom learning environment.

Further high acceptance is observed on the following items in respect of students sample.

1. The class is bright and comfortable.
2. The teacher and we make the classroom attractive.
3. The classroom is convenient to display.
4. The students would be provided to show the classroom to visitors.

From this it is observed that bright and comfortable classroom with display facilities and seating arrangement will help in better learning and provide better classroom learning environment.

6. Friction

Table-27 Table showing the percentage of acceptance expressed by the Teachers sample on the area friction.

S.No.	Statement	A	N	D
1	There is less opportunity to come differences among the members of the class	67	22	11
2.	Certain students are responsible for petty quarrels	56	28	16

S.No.	Statement	A	N	D
3.	It is difficult to organise the programme due to difference among the students	47	22	31
4.	The clever students disturb the class works due to lack of sufficient work.	43	21	36
5.	Certain students do not like to do the work with others	38	25	37
6.	Certain students have no respect for others	37	27	36
7.	There is a quarrel among the students	17	32	51

Table-28 Table showing the percentage of acceptance expressed by the student sample on the area Friction

S.No.	Statement	A	N	D
1	There is less opportunity for difference among the members of the class	75	5	20
2.	Certain students do not like to do the work with others	49	5	46
3.	Certain students are responsible for petty quarells	47	6	47
4.	Failure of the class is due to difference among the students	42	12	46
5.	Some students do not treast the others properly	41	6	53
6.	The clever students disturb the class work due to lack of sufficient work	40	5	55
7.	There is a quarrel among the students	35	4	61

Observations

As seen from the above tables, low acceptance is observed in case of the following items in respect of teachers sample and students sample.

1. Certain students are responsible for petty quarrels.
2. The clever students disturb the class work.
3. Certain students do not like to work with others.

This shows that the petty quarrels mutual distrust tamper classroom learning environment.

7. Goal Direction

Table-29 Table showing the percentage of acceptance expressed by the Teachers sample on the area Goal Direction

S.No.	Statement	A	N	D
1	We encourage the students to achieve goals	88	6	6
2.	We give importance in teaching affective domain and psychomotor domain along with cognitive domain	82	6	12
3.	The students know exactly what it has to get done	81	14	5
4.	It is easy to achieve objectives through doing and experiments	75	21	4
5.	The class realises exactly what is required to achieve	68	23	9
6.	Students of the class do not know what he is required to do	28	25	47
7.	The objectives of the class are not clearly recognised	25	17	58

Table-30 Table showing the percentage of acceptance expressed by the student sample on the area Goal Direction

S.No.	Statement	A	N	D
1	The teachers tried well to make the students comprehend the content	95	2	3
2.	The teacher encourage the students to learn more	94	2	4
3.	The teacher tries to develop skills among children	91	5	4
4.	It is easy to learn through experiments	89	4	7
5.	The students know exactly what it has to get done	70	10	20
6.	Student cannot recognise the important content items in teaching	42	12	46
7.	Students of the class do not know what he is required to do	38	12	50

Observations

As seen from the above tables, high acceptance is observed on the following items in respect of Teacher sample.

1. We encourage the students to achieve goals.
2. We give importance in teaching affective domains and psychomotor domain along with cognitive domain.
3. The students know exactly what it has to get done.
4. It is easy to achieve objectives through doing and experiment.

This shows that goal directed activities for cognitive, affective and psycho motor development help in better learning environment. Doing and experimentation help in better classroom learning environment.

As mentioned in the above tables high acceptance is observed on the following items in respect of students sample.

1. The teacher tried well to make the students comprehend the content.
2. The teacher encourage the student to learn.
3. Teacher tries to develop skills among children.
4. It is easy to achieve through experiments.

The students are also of the same opinion that doing & experimenting activities help in better learning environment.

8. Favouritism

Table-31 Table showing the percentage of acceptance expressed by the Teachers sample on the area Favouritism

S.No.	Statement	A	N	D
1	All the students of the class enjoy same privileges	66	20	14
2.	The better students questions are more sympathetically than those of average students	37	20	43
3.	The better students are granted special privileges.	33	40	27
4.	The class is controlled by the work of a few members who are favoured	30	30	40
5.	All the students of the class are not equally treated	17	22	61
6.	There is no opportunity to every student to participate in the class	17	19	64
7.	The teacher abused the backward children	17	16	67

Table-32 Table showing the percentage of acceptance expressed by the students sample on the area Favouritism

S.No.	Statement	A	N	D
1	All the students of the class are equally treated	85	5	10
2.	All the students of the class enjoy same privileges	74	5	21
3.	The class is controlled by the work of a few members who are favoured.	62	13	25
4.	The better students questions are more sympathetically than those of average students.	54	7	39
5.	The better students are granted special privileges.	50	6	44
6.	The teacher abused the backward children	42	7	51
7.	There is no opportunity to every student to participate in the class	27	7	66

Observations

As seen from the above tables, high acceptance is observed on the following items in respect of Teacher sample.

1. All the students of the class enjoy same privileges.

High acceptance is observed on the following items in respect of students sample.

1. All the students are equally treated.
2. All the students enjoy same privileges.

This shows that equal treatment to all the students and providing equal privileges to all help in better classroom learning environment.

9. Clique**Table-33 Table showing the percentage of acceptance expressed by the Teacher sample on the area Clique**

S.No.	Statement	A	N	D
1	We explain the work to be done by group	90	5	5
2.	Students cooperate equally well in the group	80	14	6
3.	The leader of the group controlled the group	72	14	14
4.	Certain students work only with their close friends	50	27	23

S.No.	Statement	A	N	D
5.	Some groups of students work together regardless of what the rest of the class is doing	41	32	27
6.	Some students refuse to mix with the rest of the class	37	26	37
7.	Group work is not organised efficiently	22	19	59

Table-34 Table showing the percentage of acceptance expressed by the Students sample on the are Clique

S.No.	Statement	A	N	D
1	Group work is organised efficiently	84	6	10
2.	We explain the work to be done by group	83	7	10
3.	Students cooperate equally well in the group	83	5	12
4.	Group leader controlled the group	62	12	26
5.	Centain students work only with their close friends	55	6	39
6.	Some groups of students work together regardless of what the rest of the class is doing	54	16	30
7.	Some students refuse ot mix with the rest of the class	37	26	37

Observation

As seen from the above table high acceptance is observed on the following items in respect of Teacher sample.

1. We explain the work to be done by the group.
2. Students cooperate equally well in the group
3. Leader control the group.

High acceptance is observed on the following items in respect of student sample :

1. Group work is organised efficiently
2. We explain the work to be done by the group.
3. Students cooperate equally well in the group.

This reveal the fact that group work will help in better classroom learning environment students learn better in groups.

10. Satisfaction

Table-35 Table showing the percentage of acceptance expressed by the Teacher sample on the area satisfaction

S.No.	Statement	A	N	D
1	The students enjoy their class work	77	16	7
2.	Students look forward to come to class meeting	74	19	7
3.	The student are dissatisfied with the physical facilities of the class	45	17	38
4.	Some students are dissatisfied with the work of their friends	30	40	30
5.	Many students are dissatisfied with what the class does	27	25	48
6.	Students are dissatisfied with the work of the large classes	27	56	17
7.	The relationship between the student and teacher is dissatisfied	15	19	66

Table-36 Table showing the percentage of acceptance expressed by the students sample on the area satisfaction

S.No.	Statement	A	N	D
1	Teachers treats well all the students	91	3	6
2.	The students enjoy their class work	85	5	10
3.	Students look forward to come to class meeting	83	15	12
4.	Some students are dissatisfied with the work of their friend	43	16	42
5.	The student are dissatisfied with the physical facilities	41	13	46
6.	Students are dissatisfied with the work of the learning classes	38	17	45
7.	Many students are dissatisfied with what the class does	35	12	53

Observations

As seen from the above table, high acceptance is observed on the following items in respect of teacher sample

1. The students enjoy their class work
2. Students look forward to come to class meeting.

High acceptance is observed on the following items in respect of students sample.

1. Teacher treat well all the students
2. The student enjoy their class work.
3. Students look forward to come to class meeting.

This opinion reveal that effective teaching will help the students enjoy their class work and help in attending the class regularly. Further equal treatment for all will result in better learning environment.

11. Disorganisation

Table-37 Table showing the percentage of acceptance expressed by the Teacher sample on the area Disorganisation

S.No.	Statement	A	N	D
1	The class is well organised	88	5	7
2.	If the class is well organised students can learn more	86	10	4
3.	If the class is well organised, interest is created among the students	85	11	4
4.	If the class is not organised properly, it leads to drop out	80	11	9
5.	If the class is not organised properly, equipment and time become waster	72	16	12
6.	Failure of the class would mean little work to individual member	50	24	26
7.	There are long periods during which the class done nothing	24	40	36

Table-38: Table showing the percentage of acceptance expressed by the Students sample on the area Disorganisation

S.No.	Statement	A	N	D
1	If the class is well organised, interest is created among the students	95	2	3
2.	The class is well organised	88	5	7
3.	If the class is well organised students can learn more	6	10	84
4.	If the class is organised properly, it leads to drop out	60	19	30
5.	Failure of the class would mean little work to individual member	60	11	29
6.	If the class is not organised properly, equipment and time become waste	44	16	40
7.	There are long period during which the class does nothing	36	11	53

Observations

As seen from the above tables high acceptances is observed on the following items in respect of teacher sample.

1. The class is well organised
2. If the class is well organised, students can learn more
3. If the class is well organised, interest is created among the students.
4. If the class is not organised properly, it leads to dropout.

High acceptance is observed on the following item in respect of students sample.

1. If the class is well organised, interest is created among the students.
2. The class is well organised
3. If the class is well organised, student can learn more.

These opinions reveal that well organised classrooms help in better learning among pupils, physically and academically sound classrooms help in better learning environment.

12. Difficulty**Table-39: Table showing the percentage of acceptance expressed by the Teacher sample on the area difficulty**

S.No.	Statement	A	N	D
1	We pay special attention on the difficult concepts	93	5	2
2.	We identify the difficult concepts	85	6	9
3.	The subject presentation is too elementary for many students	57	26	17
4.	Student in the class tend to find hard work to do	53	26	21
5.	Most students do not agreed to do the difficult work	48	28	24
6.	Most of the student feel the lessons are easy	47	25	28
7.	Student feel the work of the class is difficult	23	37	40

Table-40: Table showing the percentage of acceptance expressed by the Students sample on the area Difficulty

S.No.	Statement	A	N	D
1	All the students tend to find hard work to do	88	3	9
2.	Most of the student feel the lessons are easy	85	5	10
3.	Teacher pay special attention on the difficult concept	84	5	11
4.	Teacher identify the difficult concept	68	8	24
5.	Most of students agreed to do difficult work	65	7	28
6.	The subject presentation is too elementary for many students	49	17	34
7.	We feel that the work of the class is difficult	24	5	21

Observations :

As seen from the above tables, high acceptance is observed on the following items in respect of teachers sample.

1. We pay special attention on the difficult concepts.
2. We identify difficult concepts

Further, high acceptance is observed on the following items in respect of students sample

1. All the students is tend to do hard work.
2. Most of the students feel that lessons are easy.
3. Teachers pay special attention on the difficult concepts.

From this, it can be stated that paying special attention on difficult concepts and identification of difficult concept by the teacher contribute to better class room learning environments.

13. Apathy

Table-41: Table showing the percentage of acceptance expressed by the Teacher sample of the area Apathy

S.No.	Statement	A	N	D
1	We always encourage backward students	90	9	1
2.	Failure of the class would mean little work to individual members	64	16	20
3.	Some students do not participate actively in class work	58	19	23
4.	Some backward students sit lonely in the class	52	22	36
5.	Some students do not care what the class does	42	12	46
6.	All the students do not care about programme of the class	35	25	40
7.	Some students have not concern for the progress of the class	20	19	61

Table-42: Table showing the percentage of acceptance expressed by the Student sample of the area Apathy

S.No.	Statement	A	N	D
1	Teacher encourages backward students	83	5	12
2.	Failure of the class would mean little work to individual members	60	11	29
3.	Some students do not participate actively in class work	50	10	40

S.No.	Statement	A	N	D
4.	Some student don not care what the class does	42	11	47
5.	Some backward students sit lonely in the class	35	10	55
6.	All the students do not care about programme of the class	36	10	54
7.	Some students have not concern for the progress of the class	30	18	52

Observations :

As seen from the above tables, high acceptance is observed on the following items in respect of teacher sample.

1. We always encourage backward students.

High acceptance is observed on the following items irrespective of students sample.

1. Teacher always encourage backward students.

This shows that encouragement given to backward student helps in creating effective CLR environment.

14. Democracy

Table-43: Table showing the percentage of acceptance expressed by the teacher sample on the area Democracy

S.No.	Statement	A	N	D
1	Certain students have more influence on the class than the others	86	9	5
2.	The opinion of the students are not neglected in the class	83	10	7
3.	Student of the class share the experience of the another	82	9	9
4.	Students freely discuss the doubts	80	13	7
5.	Decisions are taken favourably to the students	76	14	10
6.	All the students of the class discuss the difficult lessons	74	12	14
7.	All the student are equally participated in the programme of the class	73	17	10

Table-44: Table showing the percentage of acceptance expressed by the students sample on the area Democracy

S.No.	Statement	A	N	D
1	All the students are equally participated in the programme of the class	85	5	10
2.	We freely discuss the doubts	82	5	13
3.	Decision are taken favourably to students	77	11	12
4.	Students of the class share the experience of one another	76	8	16
5.	All the students of the class discuss difficult lessons	76	9	5
6.	Certain students have more influence on the class than other	72	12	16
7.	The opinion of the student are not neglected in the class	62	10	28

Observations:

As seen from the above tables, high acceptance is observed on the following items in respect of teacher sample

1. Certain students have more influence on the class than others
2. The opinion of the students are not neglected in the class
3. Students of the class share the experience of one another.
4. Students freely discuss doubts.

This reveal the fact that given, consideration to students opinions, sharing of experience free discussion of doubts leads to better CRL environment.

As mentioned in the above Tables, high acceptance is observed on the following items in respect of students sample.

1. All the students are equally participated in the progress of the class.
2. We freely discuss the doubts.
3. Decisions are taken favourable to students
4. Students of the class share the experience of one another
5. All the students discuss different lessons.

This reveals that equal participation, free discussions on doubts, favourable decision towards students issues, sharing of experiences, result in better CRL environment.

15. Competitiveness**Table-45: Table showing the percentage of acceptance expressed by the Teacher sample on the area Competitiveness**

S.No.	Statement	A	N	D
1	Most of the students want their work to be better than their friends work	79	19	2
2.	Students compete to see who can do the best work	77	15	8
3.	Students of the class always compete each other	71	15	14
4.	Girls compete more than boys in the class work	64	22	14
5.	Most of the students of the class cooperate one another than compete	48	28	24
6.	It is difficult to develop competition spirit among the backward students	42	21	37
7.	Most of the student of the class do not have competitive spirit	33	42	25

Table-46: Table showing the percentage of acceptance expressed by the Student sample on the area Competitiveness

S.No.	Statement	A	N	D
1	All the students in the class compete each other to do the work well	82	3	15
2.	Most of the students of the class cooperate one another than compete	78	8	14
3.	Students of the class always compete each other	72	7	21
4.	Most of the student want their work to be better than friends work	57	3	40
5.	Girls compete more than boys in the class work	54	12	34
6.	Most of the students of the class do not have competition spirit	52	12	36
7.	It is difficult to develop competitive spirit among backward students	50	13	37

Observations :

As seen from the above tables, high acceptances is observed on the following items irrespective of Teachers sample

1. Most of the students want their work better than their friends work
2. Students compete to see who can do the best work.

It shows that desire of doing their work better than others and competition among the students in doing the best work contribute to effective CRL environment.

As seen from the above tables, high acceptances is observed on the following items irrespective of students sample

1. All the student compete each other to do the work
2. Most of the students cooperate one another well than compete

It shows that competition among the students in doing their work and mutual cooperation in doing class work contribute to effective CRL environment.

4.4 PRESENTATION OF A.M. AND S.D. VALUES OF TEACHERS AND STUDENTS DIMENSION WISE :

With a view to find out the dimensions which contribute to effective class rooms learning environment the researcher calculated the mean and S.D. values dimension wise from the acceptance of teacher sample and presented in the following table.

Table-47: Table showing the acceptance of teachers sample in terms of means and standard deviation - Dimensions wise.

S.No.	Dimension	A.M.	S.D.
1.	Cohesiveness	17.3	21.9
2.	Diversity	15.95	14.02
3.	Formality	16.26	15.2
4.	Speed	15.91	14.42
5.	Environment	16.43	17.95
6.	Friction	13.66	9
7.	Goal Direction	17.58	24.03
8.	Favouratism	11.86	17.79

S.No.	Dimension	A.M.	S.D.
9.	Clique	19.47	17.53
10.	Satisfaction	15.54	13.26
11.	Disorganisation	15.01	10.39
12.	Difficulty	15.12	11.1
13.	Apathy	13.59	11.26
14.	Democracy	17.86	27.65
15.	Competition	16.66	17.47

The above table reveals the fact that from the point of view of teachers, democratic practices, Clique information, goal direction, cohesiveness, competitive spirit and suitable environment contribute to effective class room learning environment.

With a view to find out the dimensions which contribute to effective class room learning environment, the researcher calculated the means and S.D. values dimension wise from the acceptances of students sample and presented in the following table.

Table-48: Table showing the acceptance of students sample in terms of AM and standard deviation dimension wise.

S.No.	Dimension	A.M.	S.D.
1.	Cohesiveness	17.95	87.84
2.	Diversity	13.83	26.79
3.	Formality	17.30	53.64
4.	Speed	17.38	69.69
5.	Environment	17.19	73.61
6.	Friction	12.99	53.06
7.	Goal Direction	18.01	88.45
8.	Favouratism	12.94	40.62
9.	Clique	15.06	29.11
10.	Satisfaction	16.49	58.47
11.	Disorganisation	12.11	42.14

S.No.	Dimension	A.M.	S.D.
12.	Difficulty	14.96	31.7
13.	Apathy	14.35	38.5
14.	Democracy	17.91	95.21
15.	Competition	15.24	27.84

As in the case of teachers, from the point of view of students also such factors as democratic practices, goal direction cohesiveness, Competitive spirit and suitable environment contribute to effective class room climate.

4.5 PRESENTATION OF A.M. AND S.D. VALUES OF STUDENTS DOMAIN WISE

Numerous analysis (Freser 1980) confirms that classroom perceptions cluster into dimensions of task orientation or completion of educational and personal tasks, affective and social relations among class members and organisation of the classroom work. The following table shows the classification of variables in three domains and acceptance of students on each dimension in terms of AM and SD.

Table-49

S. No.		Type of Domain	Dimensions in each domain				
	Speed	Difficulty	Competitiveness		Goal Direction		
1.	Task	Am	17.38	14.96	15.24	18.01	
		Cohesiveness	Friction	Favouratism	Clique	Satisfaction	Apathy
2.	Affective						
	AM	17.95	12.99	12.94	15.06	16.49	14.35
	SD	87.84	53.06	40.62	29.77	58.47	38.49
3.	Organisation						
	AM	13.83	17.295	17.19	12.11	17.91	
	SD	26.79	53.64	73.61	47.14	95.71	

It further confirms that goal direction is very essential for the completion of educational and personal tasks in the classroom. Cohesiveness among the pupils in the classroom is also contribute to classroom learning environment under affective domain. Democratic practices and physical environment also boosts classroom learning environment under the domain of organisation.

4.6 RELATIONSHIP BETWEEN LEARNING ENVIRONMENT AND ACHIEVEMENT

In order to study the relationship between the learning environment and achievement. Correlations coefficient were computer and presented in the following table.

Table-50: Table showing the relationship between student opinions on classroom learning environment and marks obtained.

No. of Classroom	No. of Students in 39 Classrooms	Relationship
39	772	0.385

The relationship between students opinion and marks obtained by students in the 39 classrooms are positively significantly correlated.

Table-51: Table showing the relationship between English teachers opinion on classroom learning environment and marks obtained in English

No. of English classroom	No. of Teachers	The Relationship
39	39	0.56

The relationship between opinion of english teachers and marks achieved are positively significantly correlated.

Table-52: Table showing the relationship between S.S. teachers opinion on classroom learning environment and marks obtained in S.S.

No. of English classrooms	No. of S.S. Teachers	The Relationship
36	30	0.408

The relationship between opinion of social studies teachers and marks achieved are positively correlated classification of schools.

4.7 CLASSIFICATION OF SCHOOLS

Using on the acceptance expressed by the students sample the schools under study were classified into there categories High, moderate and low environment schools. The same is presented in the following table.

Table-53: Table showing the acceptance expressed by the students sample

S.No.	Name of the school	Average opinions	Average marks
High			
1.	S.R.R.R.K.S. Dommeru	267.4	145
2.	Z.P.H.S. Dharmajudem	255.00	84.6
3.	Z.P.H.S. Makapalli	248.7	95
4.	Z.P.H.S. Kara	248.6	57.65
5.	R.C.M.S. Dharbhajudem	246.6	91.55
6.	Z.P.H.S. Narayanapuram	243	72.7
7.	Z.P.H.S.T.P. Gudem	242	132.5
8.	Z.P.H.S. Rangapuram	241.5	74.9
9.	G.G.H.S. TP Gudem	241.2	117.63
10.	Z.P.H.S. Kovvur	240.2	82.05
11.	Z.P.H.S. Tadiparru	239.5	118.3
12.	Z.P.H.S. Veeravaram	238.5	92.65
13.	Z.P.H.S. Dharmavaram	237.2	136.7
Moderate			
14.	P.S.M.G.H.S. Bhimavaram	236.9	86.6
15.	Z.P.H.S. Kanuru	236.7	73.5
16.	Z.P.H.S. Somisrigudem	236.7	79.05
17.	Z.P.H.S. T. Narayanapuram	236.1	57.05
18.	Z.P.H.S. Chagallu	235.9	73.5

S.No.	Name of the school	Average opinions	Average marks
19.	G.H.S. Kovvur	234.9	75.4
20.	Z.P.H.S. Pothavaram	234.9	72.94
21.	A.P.S.S.R.H.S. TP Gudem	234.6	125.52
22.	Z.P.H.S. Chityala	234.4	91.7
23.	Z.P.H.S. Mortha	234.3	67.7
24.	Z.P.H.S. Kamavarapukota	234	105.65
25.	B.S.H.S. Polavaram	233.8	72.6
26.	MARAMHS, Eluru	233.4	92.58
Low			
27.	PMMHS Kovvur	232.3	76.9
28.	G.H.S. Koyyalagudem	232	64.89
29.	Z.P.H.S. Nidadavolu	231.6	97.86
30.	SPGROHS Bhimavaram	231.3	54.94
31.	Z.P.H.S. Nidrakolanu	230.4	74.1
32.	Z.P.H.S. Polavaram	229.5	119.55
33.	DSOMHS Nidadavolu	229	86.7
34.	Z.P.H.S. Mupavaram	227	71.3
35.	Z.P.H.S. Gangannagudem	226.1	97.5
36.	SKPMHS Palkol	225.8	85.55
37.	Z.P.H.S. Duddukurru	224.5	79.15
38.	Z.P.H.S. Pippara	224.5	47.2
39.	JGMHS Bhimavaram	223.6	86.9

4.8 EFFECT OF CLASSROOM LEARNING ENVIRONMENT ON ACADEMIC ACHIEVEMENT :

The scores of each of the dimension of classroom learning environment were summed up to a composite score for each student. Students were split into three groups on the basis of each of their

environment scores. To identify the mean difference 't' test was applied and the results were shown in the following table.

Table No - 54: Table showing the significance of difference in mean scores of High, Moderate and Low classroom learning environment group

S. No.	CRLE Group	No. of Schools	MEAN	S.D. Groups	Comparison	T. Value
1.	High	13	250.04	2.4	1 & 2	19.6
2.	Moderate	13	234.35	0.66	1 & 3	18.09
3.	Low	13	227.38	0.55	2 & 3	29.43

The 't' value reveal the fact that there is a direct relation between learning environment and academic achievement of pupils. In case of schools with low learning environment the academic achievement of pupils is low, where it is moderate the achievement is moderate where the classroom learning environment is high, the academic achievement of pupils of such schools is high.

Chapter-5

SUMMARY AND CONCLUSIONS

5.1 INTRODUCTION

Education is a process of drawing out of the best which is hidden in a child. It is also a process of all round development of the personality of child which enables him to manifest his efficiencies and efficacies leading him toward a path of perfection and excellency of work. Therefore education is the only instrument to build up excellent personality and integrity of human being in physical, vital and psychic being. Thus the entire process of education help a child to realise his own self and the inner most principles of unity of human life and the harmony of human existence i.e., the wholeness of individuality in terms of intellectual, spiritual, emotional, social and physical aspect of human being. His leads him towards his harmonious and balanced growth of personality.

The field of education provide him full opportunities to express his personality in the way he desires to function. Therefore, it is desirable that every child should be given maximum opportunities to develop his personality in such a way that he can function well with his utmost capacities to further the interests of the society as well as the nation. Thus education is a long term national investment in human being.

Now India is moving towards 21st century. New policy on education was announced in 1986. It envisages common educational structure i.e., 10+2+3 which has now been accepted all over the country. The policy also envisages that the system of education should produce self-assured, more productive, more capable and more thinking type of citizens. For achieving this the foundation has to be laid at the primary stage of education.

In the education carrier of the child primary education plays a crucial role. It lays foundation for the development of right type of attitude, values and interests. It puts the foundation stone for the personality development of the child.

The success of primary education depends on the classroom learning environment and the classroom interaction.

Classroom is a place where a child consolidates his learning, find support for his actions, to correct his ways to learn, to accept certain things from others, to share with others to feel responsible and secure.

The classroom environment is the product of interaction between teachers and pupils in the classroom situation. The particular environment of the class may effect students in numerous ways, their perceptions, motivations, moral, adjustments and learning the way pupils are created by teachers in the classroom determines the character of classroom.

The physical, psychological and sociological aspects of classroom environment effects the learning of child. The conducive environment of the classroom improves the performance of the child when as the poor environment of the classroom results in poor performance of the child. So there should be a desirable environment for the child to learn effectively in the classroom. Following are the components of the learning environment which influence the learning of the child. There are 15 components which includes the positive and negative components also.

1. Cohesiveness 2. Diversity 3. Formality 4. Speed 5. Material Environment 6. Friction 7. Goal Direction 8. Foundation 9. Clique 10. Satisfaction 11. Disorganization 12. Difficulty 13. Apathy 14. Democracy 15. Competitiveness

5.2 SIGNIFICANCE OF THE RESEARCH PROBLEM

The Govt. of India has been paid much attention to provide conducive environment in the classroom for effective learning. Number of schemes and policies also laid much stress for better classroom performance of the children in the school. The classroom environment directly or indirectly influences the children for their academic growth. The dimension of classroom environment are important factor to influence the children in the organization of the classroom activities.

Every management has to encourage the Head Master or the Administrator or Teachers to create conducive learning environment in the classroom for better performance and achievements. The researcher

has identified this problem for his study of classroom climate because of its importance in achieving the learning goals. The problem is to study the effect of classroom learning environment on the academic achievement of the pupils. Most of the classrooms are not systematically organised and planned. The researcher had observed number of classrooms during his visits to schools and come to a conclusion that classroom climate has an impact on learning. To make an in-depth study he has selected this problem for the study. The results will help both the management and the educational worker in realising instructional goals. However there is a need to study the effect of the classroom learning environment on academic achievement of the pupils and to suggest the components of learning environment to achieve better results. However the need for the present piece of research.

“The effect of classroom learning environment on the academic achievement of the pupils”.

5.3 OBJECTIVES OF THE PRESENT STUDY

The major objectives of the present investigation is to find the effect of the classroom learning environment on the academic achievement of the pupils.

The following are the specific objectives of the study :

1. To study the components of classroom learning environment
2. To study the perception of teachers on classroom learning environment.
3. To study the perception of students about classroom learning environment
4. To study the effect of classroom learning environment on the academic achievement of the pupils.
5. To suggest the components of learning environment for high achievements.

5.4 HYPOTHESIS

The study is based on the following hypothesis

1. There is not significant difference in the opinion on the classroom learning environment in respect of teachers and students with regard to variable viz sex, locality, age, qualification, experience, strength of the student in the class, designation, subject and management :
2. There is an impact of classroom learning environment on the academic achievement of pupils.

5.5 BASIC ASSUMPTIONS

The researcher started his investigation with the following assumption.

1. That each school has a unique learning environment based on its own characteristics.
2. That the learning environment can be identified by the factors of environment which are prevailing in class between the teachers and the pupils for better learning.
3. That the learning environment can be measured.
4. That the personnel variable of respondents teachers like age, qualification and experience influence teachers perception of classroom learning environment.
5. That the school performance be measured on the basis of its student performance in the terminal examinations.
6. That the classroom learning environment is that which is measured by questionnaire.

5.6 LIMITATIONS OF THE STUDY

The present research is designed to study the effect of classroom learning environment on the academic achievement of the pupils. Classroom environment of tribal schools, the impact of various schemes implemented in Andhra Pradesh on CRL environment, Role of supervisors and administrators for effective environments, classroom environment of science and maths classes and other classes I to V are not taken into the study.

Further, the sample of the study is also limited to social studies and English classes of VII classes of 40 schools of West Godavari of Andhra Pradesh.

5.7 REVIEW OF LITERATURE

The researcher reviewed the research studies on the topic of present study. More number of research studies have been conducted in the western countries in the area classroom learning environment than in India. The review of the studies revealed the fact that most of the works deal within the classroom learning environment at High Schools, +2 level and college level. A few studies were done at primary stage both in India and abroad. Researcher identified the

area which is not covered by the studies reviewed and felt that there is need to take up present study at the primary stage on classroom learning environment.

5.8 METHOD OF RESEARCH

The present research is intended to study the effect of classroom learning environment on the academic achievement of pupils. The research adopted survey type of method to study this problem.

5.9.1 Population of the Sample

Forty-nine schools were selected from all the managements for collection of data.

In view of the constructs of the time and resources the investigation thought it appropriate to select forty-nine schools representing various management as the sample for the present study. There are 356 schools in these areas 13,576 of 356 would come to 49. So it was decided to select 49 schools representing all the four managements in proportion to their strength of numbers. Sample schools covered the entire district including towns and villages there by covering urban and rural parts of district. The data will be collected from teachers of 49 schools and from students of 39 schools of West Godavari.

5.9.2 Sample of Teachers

In each school selected for investigation two teachers who taught English and Social studies for VII class were selected irrespective of management to which the school belongs.

5.9.3 Sample of Students

From each of the school selected for study, 20 students were selected for the study duly taking roll numbers 1,3,5 or 1,5,10 from the attendance register. Both boys and girls were included from each school for the collection of data.

This sample of teachers and students covers entire management of schooling system covering urban and rural areas and also boys and girls.

As already mentioned, the sample covers the teachers who handled English and Social studies subject for VII class. The researcher selected one subject from language and one from non language.

5.10 TOOLS EMPLOYED

Three tools were employed in this research for collection of data one for teachers and other two for students. The teachers were issued with learning environment inventory questionnaire while students were administered with the learning environment inventory questionnaire and a format for collection of marks of pupils involved in the study.

5.10.1 Learning Environment Inventory Questionnaire for teachers

Learning environment inventory questionnaire developed by the Barry J. Fraser and Gary J. Anderson was used for the present study. It was modified according to the conditions prevalent in the schools of Andhra Pradesh. This tool was administered to the teachers working in the High Schools handling VII class.

This tool was first triadout by administering to twenty teachers. This tool consisted of 115 items under 15 dimensions. The researcher included 7 items in each dimensions, 10 items were removed from the questionnaire due to lack of validity. There the questionnaire was administered to the teachers handling english and social studies subjects to VII class. Three points sclae was used and marks 1,2,3 were awarded to the positive items and 3,2,1 to negative items.

5.10.2 Learning Environment Inventory Questionnaire for students

This tool was also prepared by the researcher basing on the questionnaire of the Fraser and Anderson, keeping in view of the students to find the actual environment items. It was also tried by administered it to VII class students. 15 items were removed from the questionnaire due to lack of validity. There researcher took care to maintain equal (7) items under each dimension. It had 15 dimensions, later it was administered to the students of VII class. Twenty questionnaires were given to each class from the school selected. These questionnaires were administered to the students of VII class according to their roll numbers in order of 1,5,10 at a maximum of 20.

5.10.3 Achievement test - Marks

Marks of those students who filled the questionnaire were collected from every school involved in the study. Marks of social studies and english subject were collected in the proforms given. Terminal examination marks of pupils of VII class were colelcted from the schools.

5.11 ADMINISTRATION OF TOOLS

The researcher personally visited the sample schools to observe classroom situation in the schools and talked to the teachers and students about the researchwork. The questionnaires were than administered to teachers and students. Then the researcher collected the half yearly examination marks by getting the permission from the Head master of their school for the study.

Then the tools were administered and data collected for analysis and interpretation.

5.12 CONCLUSIONS

The following are the findings of the study.

1. Similar opinions on the classroom learning environment were expressed by the both groups under each variable i.e., sex, locality, age, qualification, experience, strength, designation, subject and management of the teachers sample.
2. There is no significant difference in the opinions expressed by the students sample with regard to variable to locality and sex and classroom learning environment.
3. Teachers and students expressed similar opinions on the classroom learning environment.
4. It is found that friendly relations and mutual cooperation among the pupils under cohesiveness component result in better classroom learning environment.
5. Under diversity students having different interests develop competitive spirit among themselves which help in better learning and better classroom learning environment.
6. Classroom rules and formalities help in realizing the goals successfully and help in better classroom learning environment.
7. Keeping the class active in academic work helps in better learning.
8. Bright and comfortable classrooms with display facilites and seating arrangements will helop in better learning.
9. Bright and comfrotable classroom with display facilities and seting arrangement will provide better classroom learning environment.
10. Petty quarrels and mutual distrust under friction, tamper the classroom learning environment.

11. Learning by doing and experimentation help in better classroom learning environment.
12. Equal treatment for all the students and providing equal privileges to all help in better classroom learning environment.
13. Group work will help in better classroom learning environment.
14. Students learn better in groups.
15. In satisfaction area, effective teaching will help the students enjoy their class work and help in attending the class regularly.
16. Well organised classrooms help in better learning among pupils.
17. Physically and academically sound classrooms help in better learning environment.
18. Paying special attention on difficult concepts and identification of difficult concepts by the teachers contribute to better classroom learning environment.
19. Encouragement to backward students result in effective classroom learning environment.
20. Free discussions on doubts, sharing of experiences and giving consideration to students opinions under democracy leads to better classroom learning environment.
21. Competition among the students in doing their work and mutual cooperation in doing class work contribute to effective classroom learning environment.
22. It reveals from the teachers acceptance that the dimensions democratic practices, Clique formation, goal direction, cohesiveness, competitive spirit and suitable environment contributes to effective classroom learning environment.
23. As in the case of teachers, from the point of view of students also such dimensions as democratic practices, goal direction, cohesiveness competitive spirit and suitable environment contribute to effective classroom environment.
24. It further confirms that (A) goal direction is very essential for the completion of educational and personal tasks in the classroom. (B) Cohesiveness among pupils in the classroom is also contribute to classroom learning environment under affective domain. (C) Democratic practices and physical environment also contribute to classroom learning environment under domain of organisation.

25. The relationship between students opinion and marks obtained by students in the 39 classrooms are positive significantly correlated.
26. The relationship between the opinion of english teachers and marks achieved are positive significantly correlated.
27. The relationship between the opinions of social studies teachers and marks achieved are positively correlated.
28. Basing on the acceptance expressed by the students sample, the schools under study were classified into three categories high, moderate and low environment schools.
29. The 't' values of high, moderate, low environment schools reveal the fact that there is a direct relation between learning environment and academic achievement of pupils.
30. In case of schools with low learning environment the academic achievement of pupils is low.
31. Where the classroom learning environment is moderate the academic achievement is moderate.
32. Where the classroom learning environment is high the academic achievement of pupils of such schools is high.

SUGGESTIONS FOR FURTHER RESEARCH

Keeping in view of the present study and finding there on the investigator suggest the following issues relating to the present problem for further study.

1. An attempt may be made to study the effect of classroom learning environment on academic achievement of pupils in other states of the country.
2. A comparative study can be taken up on classroom learning environment of Govt. Schools and Residential Schools.
3. Study the perceptions of teachers, students, administrators, supervisors and parent on classroom learning environment.
4. A study can also be taken up on the impact of various schemes of Govt. which are implemented for better classroom learning environment.
5. A study on the dynamic role of teachers in the classroom for creating better classroom learning environment can also be taken up.

Appendix-I

List of Schools

1. Z.P.H. School, PIPPARA
2. Z.P.H. School, POTHAVARAM
3. Z.P.H. School, MORTHA
4. Z.P.H. School, TADIPARUU
5. Z.P.H. School, T. NARAYANAPURAM
6. Z.P.H. School, RANGAPURAM
7. Z.P.H. School, GANGANNAGUDEM
8. S.P.G.R.O. School, BHIMAVARAM
9. Z.P.H. School, PEDANINDRAKOLANU
10. J.G.M.H. School, BHIMAVARAM
11. D.S.O. Mpp. H. School, NIDADAVOLU
12. P.S.M.G.H. School, BHIMAVARAM
13. Z.P.H. School, NIDADAVOLU
14. Z.P.H. School, D. MUPAVARAM
15. Z.P.H. School, KANURU
16. Z.P.H. School, SAMISRIGUDEM
17. Z.P.H. School, KAZA
18. S.K.P. Mpl. H. School, PALAKOL
19. Z.P.H. School, DHARMAJIGUDEM
20. Z.P.H. School, TADEPALLIGUDEM
21. G.G.H. School, TADEPALLIGUDEM
22. A.P.S.S.S.R.H. School, TADEPALLIGUDEM

23. Z.P.H. School, KAMAVARAPUKOTA
24. M.R.K.Z.P. School, VEERAVASARAM
25. R.C.M.H. School, DARBHAGUDEM
26. Z.P.H. School, KOVVURU
27. P.M.M.M. Mpl. H. School, KOVVURU
28. G.H. School, KOVVURU
29. Z.P.H. School, CHAGALLU
30. Z.P.H. School, CHITYALA
31. Z.P.H. School, POLAVARAM
32. P.M.P.B.H. School, POLAVARAM
33. M.A.K.A.M.H. School, ELURU
34. Z.P.H. School, DHARMAVARAM
35. Z.P.H. School, DUDDUKURU
36. Z.P.H. School, MALAKAPALLI
37. S.P.V.R.K.R. School, DOMMERU
38. Z.P.H. School, NARAYANAPURAM
39. G.H. School, KOYYALAGUDEM
40. R.C.M.H. School, AAKIVEEDU
41. K.R. Aided H. School, AAKIVEEDU
42. Z.P.H. School, KARUGORUMILLI
43. Z.P.H. School, ADAVIKOLANU
44. Z.P.H. School, GOPALAPURAM
45. M.H. School, NARASAPURAM
46. Z.P.H. School, DUBACHERLA
47. Z.P.H. School, ERNAGUDEM
48. Z.P.H. School, DEVARAPALLI
49. Govt. H. School, POLAVARAM

Appendix-II

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