CHAPTER-II

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Review of related research provides evidence of adequate familiarity with the work done previously in the same area and what is still unknown and untested. The step helps the investigator to sharpen and define understanding of existing body of knowledge in the problem area. For the present study, review of related literature has been given under:

2.1 REVIEW RELATED TO SCHOOL EFFECTIVENESS
2.2 REVIEW RELATED TO EMOTIONAL INTELLIGENCE
2.3 REVIEW RELATED TO COMMUNICATION SKILLS
2.4 REVIEW RELATED TO CHANGE PRONENESS

2.1 REVIEW RELATED TO SCHOOL EFFECTIVENESS

The school effectiveness research paradigm has had an enormous impact upon both educational policy and the educational research community in the UK, the USA and Australasia, and has begun to make a real impact on educational communities and policy makers in developing countries. Its importance has been such that at times it has almost seemed heretical to challenge the approach. School effectiveness studies have then attempted to identify those factors, which would be expected to produce better schools, irrespective of particular context. In the USA, Edmonds’ (1979) research led to the suggestion that there are seven factors, which may be identified a key characteristics in school’s success:

- Strong administrative leadership
- A climate of higher expectations
- An orderly yet non-expectations atmosphere;
- The prioritization of the acquisition of basic skills over other activities.
- The ability to divert school energy and resources into pursuing fundamental objectives when necessary.
The frequent monitoring of pupil’s achievements.

In the UK, Mortimore (1993) suggested the following eleven factors as key variables in this process:

- Purposeful leadership of the staff by the head teacher.
- The involvement of the deputy head
- The involvement of teachers.
- Structured sessions.
- Intellectually challenging teaching
- Work-centered environment
- Limited focus within session;
- Maximum communication between teachers and pupils
- Record keeping
- Parental involvement
- Positive climate

Similarly, the following common element in effective schools amount to:

- A positive attitude towards the pupils by teachers and the principal.
- Strong and competent leadership
- Highly committed teaching staff.
- Higher expectations and standards
- An emphasis upon high achievement in academic subjects.
- Intensive and personal support services for artists students.
- Stable leadership and public support in the catchment area of the school for the period of years sufficient to implement new policies were also listed.

Most school effectiveness studies have focused on academic achievement in terms of basic skills in reading, science and mathematics or examination results. However, a few studies have also provided evidence of important differences in social/effective outcomes such as attendance, attitudes, and behavior (Mortimore, 1988b; Scheerens, 1992; Clark & Fuller, 1996)
It is now widely recognized that there is no simple combination of factors, which can produce an effective school. In many ways every school is unique "each has its own characteristics which are shaped by such factors as its location, pupil intake, size, resources and, most importantly, the quality of its staff" (Reid, Hopkins & Holly; 1987). To this list we can add its particular history as well as Governing Body, Local Educational Authority (LEA) and national influences.

In the International Seminar on "School Effectiveness and Learning Achievement at Primary Stage" organized by NCERT from 17-19 July, 1995 emphasized the various focal themes related to school effectiveness. These are:

- Classroom factors and learning achievement;
- School cost of effectiveness;
- Home and community factors;
- Student learning, school participation and attitudes;
- Methodological issues in research at primary stage.

II Seminar on "Classroom process and school effectiveness" and the III Seminar addressed to the "Teacher empowerment and school effectiveness at primary stage" organized by NCERT from 24-26 July, 1996 and 23-25 July, 1997 respectively. The aim of both the seminars were to share researches and studies conducted at primary school stage under different socio-cultural contexts in India and abroad in order to understand the functioning of variables related to learning achievement classroom process, teacher empowerment and their contribution to school effectiveness.

The school effectiveness studies conducted in India indicate that the level of infrastructure facilities provided in the school played an important role in improving the teaching learning environment and consequently, the learners achievement level as well as overall school quality (Buch 1983; Govinda and Varghese, 1993; Kamat, 1998). Besides, the teacher, the physical environment in the school and teaching learning materials also have positive associations with the school effectiveness (Saxena, 1995; Varghese, 1995; Rath and Rajesh, 1997).
Some school effectiveness studies also reveal that the school effectiveness is determined by the degree of autonomy given to the head of the school and staff. Factors, which enhance school effectiveness, are supervision, structure of the school, effective management and weekly plan of lessons. The nature and type of curricular and co-curricular activities directly make for more effectiveness in school.

In the year 1998, the NCERT conducted the IV International Seminar on "Researches in Learning Organization, Community Participation and School Effectiveness at Primary stage". All the sub-themes of Learning Organization and Community Participation and their implications for School Effectiveness were main focus of this seminar.

In the V International Seminar on "Researches in School Effectiveness at Primary Stage" Organized by NCERT, from 14-16 July 1999. The aim of the seminar was to draw on the expertise from researches conducted at the primary stage of schooling under different socio-cultural contexts in India and abroad. The sixth International Seminar focused on Indicators of Quality Education at Elementary Level was also organized by NCERT from Dec 13-15, 2000.

Conley (2000) studied, “Teacher role stress, higher order needs and work outcomes” observed that role stress related to individually and organizationally value outcomes among both elementary and secondary teachers. In examining the role stress-outcome relationship, research suggests the importance of taking into consideration of work orientation of individuals as possible moderators of the role stress-outcome relationship, using a sample of elementary and secondary teachers, this study empirically examined, first whether three role stresses-role ambiguity, role conflict and role overload are related to individual and organizational outcomes.

Mayer (2000) in his study examined the perceptions of middle school principals’ performance skills that are practiced and those that should be practiced. Data was collected from 24 selected middle schools principals and 440 of the 822 teachers for analysis, the skills were organized in the categories of leadership,
interpersonal relationship skills. Significance level of each skill was measured by
data. teachers and principals do not agree on the recommended skills that should be practiced by instructional leadership and administrative service areas.

Research in school effectiveness recognizes that the most important aspect
of the "success" and "failure" of schools can be assessed by the academic
attainment of their student. Now there is an extensive academic literature on
school effectiveness and school improvement but, according to a recent review,"evidence concerning the outcomes from specific approaches to school
effectiveness/improvement remain in relatively short supply". The majority of
effectiveness studies have focused exclusively on students' cognitive outcomes in
area such as reading, mathematics on public examination results. Only a relatively
few studies have paid attention to social/effective outcomes (Saxena 1995;
Varghese, 1995). Because of this focus the results of review, inevitably, tell us
more about the correlates of academic effectiveness. As Reynolds (2001) has
pointed, we have less evidence about school and classroom process that is
important in determining schools success.

Thrupp (2001) in his study ‘Recent School Effectiveness counter-critiques:
Problems and possibilities’ examined the recent responses of several effectiveness
researches to the concerns of their critics. Issues examined the complexity of the
debate over SER, the value of Pragmatism, the impact of social class, the
significance of methodological problems, the value of current attempts to theorize
SER, the relationship of SER to educational politics and policy-making, the
politics of doing SER, and the claimed achievements of SER, the discussion
highlights a number of continuing tensions surrounding SER but also suggests
that, if taken at face value, the counter-critiques are often not taking the arguments
of critics seriously.

Styron and Disher (2003) conducted a study ‘Improving school
performance and career preparation with a wireless computer lab’, to explore the
role of technology integration to raise school performance success as related to
accountability programming. A lab of 32 computers was established. This lab not
only helped improve the writing and research skills of the ninth-grade students, but also improved its overall performance.

Mcewan (2003) in his book ‘Ten traits of highly effective Principals ‘ explored Ten traits of highly effective Principals contains ideas, reflections, behaviors, habits and stories from the trenches to guide and inspire Principals’ effectiveness. Each chapter in this resource describes an essential component of personal effectiveness. A highly effective Principal should be-

• Communicator - listen, empathize and connect.
• An educator – with a depth of knowledge; motivates intellectual growth.
• An envisioned – focused on the vision of what schools can be.
• A facilitator – building strong relationships.
• A change master – flexible, futuristic and realistic, and can motivate change.
• A culture builder – communicating and modeling a strong, viable vision.
• An activator – with motivation, energy and enthusiasm to spare.
• A producer – building intellectual development and academic achievement.
• A character builder – whose values are trustworthiness, respect and integrity.
• A contributor – whose priority is making contributions to the success of others.

Griffith in his study (2004), “Relation of principal transformational leadership to school staff job satisfaction, staff turnover, and school performance” found that Principal transformation leadership was not associated directly with either school staff turnover or school-aggregated student achievement progress. Finally, higher levels of school staff job satisfaction were associated with smaller achievement gaps between minority and non-minority students. Survey data were obtained from elementary school staff and students, and school-aggregated student achievement test scores were obtained from school archives. Results are discussed in relation to the role of transformational leadership in school performance and in recruiting, training and evaluating school principals.
Dinham (2005) conducted a study ‘principal leadership for outstanding educational outcomes’ to explore the role of principals in producing outstanding educational outcomes in years 2007 to 2010 in New South Wales (Australia) government schools using a variety of data including performance in standardized tests, public examinations, various value added measures and nominations from various stakeholders. A total of 50 sites across NSW from 38 secondary schools were studied. With both subject departments and team responsible for cross-school programs, leadership was found to be a key factor in the achievement of outstanding educational outcomes. This article has implications for principal selection, training, appraisal and professional development.

Firestone (2008) in his study ‘Social capital and school performance’, found that social contacts affect the productivity of individuals and group theory in his studies of Italy and the United States. Students score higher on statewide tests in schools districts.

Mulford and Ewington (2008) in their study examined the role principals in successful school principalship in the Australian state of Tasmania. Data was collected from 195 Government schools in Tasmania. Surveys sought responses in areas such as demographic characteristics (including a measure of school Poverty), leadership characteristics, values and beliefs, tensions and dilemmas, learning and development, school capacity building, decision making, evaluation and accountability and perceptions to school success. The data analysis revealed that the research on successful principalship in high performance schools in high-poverty communities needs to be given greater priority.

Gigante (2008) in a study ‘Administrative support and teacher leadership in schools implementing reform’ reviewed how teacher leaders help teachers to improve their teaching. Research focused on purposive sample of seven teacher leaders selected to vary in their time allocated to teacher leader work and their content knowledge. Each teacher was interviewed, as were two teachers and at least one administrator working with that teacher leader. He found that support
tasks helped teachers to do their work but did not contribute to teacher learning. Developmental tasks did facilitate learning.

The Workshop on ‘Leadership programme for School Principals and Leaders’ organized by TISS from 19-20 September, 2009. The aim of the workshop was to understand the leadership challenges of School Principals, TISS have developed a leadership programme for the school principals and school leaders. The objective of the program were to enhance school effectiveness and leadership qualities as well as to introduce a co-operate perspective.

Daly (2010) emphasized that systematic reform is a way to support instructional conference. Efforts are layered to existing social relationships between school staff that were rarely taken into account when enacting reform. Social network theory posits that the structure of social relationships may influence the direction, speed and depth of organizational change and may provide valuable insights in social forces that may support or constrain reform efforts. The mixed methods exploratory case study examined five schools within one under-performing school district as it enacted a system wide reform. Quantitative survey data were collected to assess social networks and teacher work perception of five schools enacting the reform. Qualitative data were gathered through individual interviews from educators within representative grade levels as a way to better understand the diffusion and implementation of the reform.

The finding indicated significant variance within and between schools in terms of reform-related school networks. These networks were significantly related to the uptake depth and spread of the change. Ensley connected grade levels were also associated with more interactions focused on the teaching and learning and an increased sense of grade level efficacy.

Agezo (2010) in her study ‘Female leadership and school effectiveness in junior high schools in Ghana’ examined female principal leadership practices that are considered critical in the effectiveness and improvement of schools and school administration in Ghana junior high schools. The study was qualitative and interpretive. Five principals of junior high schools were interviewed, their schools
observed over a period of three months, and schools’ records examined. The findings of the study indicated that the principals created a work environment that encouraged creative thinking; designed and implemented new and cutting edge programs; and challenged the status quo.

Ajayi and Ekundaya (2011) examined the factors determining the effectiveness of secondary schools in Nigeria. The study was descriptive. The population comprised all the teachers, principals as well as parents of students in public secondary schools in South-North Nigeria. The sample comprised 1200 teachers, 300 parents and 60 Principals from 60 secondary schools. Multi-stage random sampling technique was used to select the sample. Three sets of instruments were used to collect the data for the study. The data collected were analysed using frequency counts. Percentage scores and multiple regression analysis. The study revealed that the secondary schools were effective in the affective and the psychomotor domains but not effective in the cognitive domain. The study further revealed that learning environment, monitoring of students’ progress, school facilities and teachers’ quality made significant contributions to school effectiveness.

Learning environment was the best predictor of school effectiveness. It was therefore recommended that the government and school administrators should intensify efforts towards improving the level of cognitive achievement while more emphasis should be placed on institutional factors such as teachers’ quality learning environment, school facilities and monitoring of students’ progress in order to improve the effectiveness of schools.

2.2 REVIEW RELATED TO EMOTIONAL INTELLIGENCE

Dominguez (2003) in his study ‘Relationship of leadership orientations to emotional intelligence of public principals in Puerto Rico’ examined the school principals’ leadership orientations and their emotional intelligence. Two instruments were used to assess emotional intelligence of school principal. The results of the study indicated that there is positive relationship between leadership and emotional intelligence.
Reed (2005) in his study explored specific leadership behaviors and openness of education organizations and the effects of both on student achievement. This exploratory study considers distinctions between two competing emotional intelligence constructs, attempts to refine and extend a more focused leadership model, and probes theoretical, empirical and structural relationships among teachers’ perception of principal emotional intelligence, principal leadership behavior, and principal openness in elementary schools throughout. This work offers tentative findings that suggest self and social awareness of principals’ competencies in managing self and others are critical to the development of enabling structure and open interpersonal processes in schools and reveals important questions that guide more extensive research related to principal emotional intelligence leadership style, openness and other variables presumed related, either direction or indirectly, to student achievement.

Calderin (2005) in his study ‘Emotional intelligence in public elementary school principals: Building collegial relations’ found that the success of a learning organization such as a public school may be affected by the principal’s emotional intelligence. The naturalistic inquiry examined the emotional connection five suburban elementary school principals have established among the faculty within learning organizations with a majority minority student population. The researcher used methods consistent with naturalistic inquiry of human interactions such as participant observation, non-participant observations and review of archival materials, memos, interviews, and unobtrusive dues.

Interviews with open-ended questions were conducted with research participants to understand the thinking building principals have in developing emotional connections in their collegial interactions. The major findings of study revealed that collegial relations are influenced by the emotional intelligence of the building principal, explored the role good collegial relations plays in creating an emotionally intelligent learning environment, and concluded that effective public elementary school leaders are emotionally intelligent.

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Barent and Marie (2005) conducted a study ‘Principals’ levels of Emotional Intelligence as an influence on school culture’ to explore the role of emotional intelligence of a school principal and the influence that has on a school culture. This study measured the EI of 15 Principals willing to participate from randomly selected school districts in Wyoming. Using the Mayer-Salovey-Caruso EI Test (MSCEIT), which measures four categories of EI: a) managing emotions, b) assessed using the emotional management task and social management task, c) Using emotions, assessed using the sensations task and facilitation task, and d) Perceiving emotions, assessed using the face task and pictures task. All the teachers from the participating schools were questioned using the David C. Anchin school culture quality survey. This survey measures teachers’ perceptions of 1) having a shared vision, 2) facilitative leadership, 3) Teamwork and cooperation of staff, and 4) nurturing a learning community. This instrument is designed specifically to measure the work culture of teachers, which enables them to do their job well. Data analysis included a hierarchical linear model of the current status of teachers’ perceptions of the school culture’s four categories (shared vision, facilitative leadership, teamwork and cooperation, and nurturing a learning community) and the current status of the four categories of emotional intelligence of the principal (managing emotions, using emotions, understanding emotions and perceiving emotions).

Kumar (2006) in his study ‘Emotional intelligence for better work place emotions’ investigated dimensions of intelligence by measuring related concepts, such as social skills, interpersonal competence, psychological maturity and emotional awareness, long before the term ‘Emotional Intelligence’ came into use. Emotional Intelligence is a part of health and well-being. It is widely accepted around the world as a key element in our success, family life, physical fitness, self-esteem and creativity. Emotional Intelligence is increasingly relevant to organizational development and developing people, because the EQ Principals provide a new way to understand and assess people’s behaviors, management styles, attitudes, interpersonal skills and potential. Emotional intelligence is an important consideration in human resources planning; job profiling, recruitment
interviewing and selection, management development, customer relations, customer services and more.

In the year 2007, the NCERT published ‘A professional guide-Emotional Intelligence at Work’. In which a collection of personal experiences of the author on emotional management, personal and interpersonal management, self-satisfaction and career perfection in the fields of management, administration etc. taking care of social and psychological dimensions of emotional intelligence. In the seven chapters of the book, the author begins with the conceptual framework of emotional intelligence, professional success followed by its relationship with personality and I.Q. development of EQ, personal and inter-personal emotion management skills. It also tries to reflect upon the empirical evidences in the field through case-studies, example from various fields, EQ requirements for various fields of emotional intelligence and the stress management. It has given a three phase training and development model for development of EQ. The book ends with an EQ test for knowing one’s own EQ.

Malhotra (2007) in his study ‘A study of Principals’ decision making style and its relationship with teachers’ professional growth and organizational health, in government and private schools’ investigated that the Principals perceive themselves to be different in their decision-making styles, 42% of all school Principals perceive themselves to be heuristic decision makers, 24% routine decision makers and 34% perceive themselves to be compromise style decision makers.

It was hypothesized that there is no significant difference between decision making style of the Principals of government and private schools. However, the results show that amongst Government schools’ Principals, 38% follow heuristic style, 27% follow routine style & 35% follow compromise style of decision making, whereas amongst the private schools’ Principals, 46% follow heuristic style, 21% follow routine style & 33% following compromise style of decision making.
It is implied that the Principals of private schools are somewhat more creative in their decision making compared to government schools. There is no rigid hierarchical structure in their schools. There is freedom for the faculty and the emotional and social tone in their schools is relatively relaxed.

Speath (2007) in his study ‘School administrator’s leadership and Emotional Intelligence’ examined Emotional Intelligence and School Principals. He interviewed 6 Principals and asked questions about how they handled various situations they encountered in the course of their jobs as elementary school Principals. The data showed that Principals routinely used all or most of the emotional intelligence competencies when dealing with difficult issues. Principals suggested that conflicts or problems occurred in their dealings with other people and interpersonal skills and communication were vital to successfully manage interpersonal relations and to solve problems. In order to manage relations and solve problems the Principals felt they needed good knowledge of self to be flexible and adapt at Problem-solving. General mood and stress management contributed to job satisfaction and personal well-being.

Singh and Manser (2008) in their study ‘Relationship between the perceived emotional intelligence of school principals and the job satisfaction of educators in a collegial environment’, found that after empirical investigation that teachers wish to be led by school principals who are confident in their collegial leadership role and who maintain self-control, are adaptable and flexible and who face the future with optimism.

Craig & John (2008) interviewed three public schools principals using a critical incident protocol and teachers from those schools were asked to complete section VII of the schools and survey (National Center for Education Statistics. 2004). The survey measured teacher job satisfaction, while the responses to the principal interviews were coded for behaviours that correspond to fundamental competencies of emotional intelligence as defined by Goleman, Boyatzis and Mckee. This study found a positive relationship between the competencies related to emotional intelligence: optimism, emotional self-awareness, Empathy and
Achievement orientation. These are fundamental competencies of emotional intelligence which create resonance in the school.

Williams (2008) in his study ‘Characteristics that distinguish outstanding urban principals; Emotional intelligence, social intelligence and environmental adaptation’ examined the emotional and social intelligence competencies that distinguish outstanding from typical urban principals. A criterion sample of 12 outstanding and eight typical principals was identified from a large Midwestern Urban School district. Data from critical incident interviews and written questionnaires were collected. Significant differences were found in both area of inquiry. The study found differences in how outstanding and typical principals conceptualize and adapt to their external organizational environment.

Moore (2009) in his study suggested that to cultivate a culture that challenges the status quo and expect excellence, school leaders to learn, develop and demonstrate high levels of emotional intelligence. Studying emotional intelligence provides leaders with the awareness necessary to meet the needs of a staff that is engaged in developing a common vision for their school, maintaining a focus on high achievement for all students, and creating school cultures of trust and respect. Leadership continues to be a focal point for school reform, so policymakers and institutions of higher education need to act on the research that shows the relationship between emotional intelligence and effective leaders.

Stephens and Hermond (2009) in their study ‘The level of emotional intelligence in Principals of recognized and acceptable schools’ explored that new educational system demand even more sacrifices from teachers, students and Principals as expectations rise and pressures increase for educational improvements. Successful schools need educational leaders who have the abilities to facilitate sustained and lasting change.

All practicing Secondary school Principals from the state of Texas were the target population, two different groups of thirty five Principals were selected. The first sample was randomly selected from all Principals of ‘recognized’ secondary schools in Texas. Only Participants who had been in the same recognized schools
for at least two years were included. The comparison group of Principals were selected randomly from recognized campus but from schools which were rated ‘acceptable’.

The study found that new educational leaders will need to have a strong sense and moral purpose for direction and great emotional intelligence as they build relationships.

The first international conference on ‘Emotional intelligence’ was organized in Malaga from 16th to 19th September, 2007. 350 leading scientists and experts contributed in it from the perspective of their different specialties and areas of research, by analyzing important theoretical, empirical, and practical aspects of Emotional Intelligence.

The second International Emotional Intelligence conference took place in the city of Santander (Spain), organized by Marcell Brown foundation on the 16th - 18th September, 2009. 400 scientists and experts took place. The aims of this conference were reviewing, analyzing and demonstrating the impact of EI in practice, in health, education and organizations.

Flores (2009) in his study ‘The relationships between Emotional Intelligence and the effectiveness of school Leaders’ explored the emotional intelligence of Public school Principals. He surveyed students’ standardized reading and mathematics test scores from public elementary, middle and high schools in Hawaii. He examined if there is a relationship between the emotional intelligence of school Principals first. co-relational analysis determined that there was a little or no relationship between the emotional intelligence of school Principals and school quality surveys of Principals’ respective schools. Secondly, the analysis also showed little or no relationship between the emotional Intelligence data and the reading and mathematics scores of the students from Principals’ schools.

Cerrius (2011) in his study ‘Emotional Intelligence and school leadership’ explored that there are poor relations between the Principal and many of his/her
staff. In more than one school, his national equity project coach was hired to work with the Principal and team on instruction. The Principal was new and had quickly set about establishing ambitious instructional targets for the school, many of which were explicitly tied to equity and the performance of the students of colors, but soon realized that many teachers, who had of course been there much longer than this Principal, were not adopting the new practices. The Principal was demoralized by this ‘resistance’ and the attitude among some teachers that their job was to teach students who were ready to learn, It wasn’t there job to deal with students who were ‘resistant’ in learning. A lot of so-called resistant being dealt by shutting down, anger, frustration and dismissal etc.

Kalra and Nisha (2012) in their study ‘Emotional intelligence and personality among school students’ explored the emotional intelligence and personality’s big five factors among school students of Sirsa, Haryana. For the present studies, Mangal emotional intelligence namely inter-personal awareness, intra-personal awareness, inter-personal management and intra-personal management had been chosen. And for personality’s big five factor i.e. neuroticism, extraversion, openness, agreeableness and consciousness. NEO personality inventory had been taken. It included 100 statements from government and private schools of Sirsa district.

There were three hypotheses formulated. The study concluded that five factors of personality showed the impact on the three aspects of emotional intelligence i.e. inter-personal awareness, intra-personal awareness and inter-personal management had a positive relationship with consciousness. On the contrary, agreeableness exhibited negative relationship with intra-personal management.

2.3 REVIEW RELATED TO COMMUNICATION SKILLS

Saunders & Mills (1999) in conference in Melbourne ‘The knowledge of Communication Skills of Secondary graduate Student teachers and their understanding of the relationship between communication skills and teaching’ found that effective communication skills are essential to good teaching practice.
The paper discusses how these skills are integrated during a teacher education course. The base information was established by interviewing a sample of secondary student teachers to assess their knowledge prior to entering the course.

Yeeyeung (2000) presented a paper on the conference of AARE, Sydney on 6 December, 2000. ‘The role of Educational leaders.’ The paper aims at exploring effective educational leadership through examining the management and leadership styles of a group of Primary and Secondary school Principals in Australia. A modified Q-short and in-depth interviews were used in the study, the principals being asked to share their perceptions of their leadership role with particular reference to the importance of interpersonal skills. The main emphasis of the paper was on the interview responses rather than results of the Q-short findings from the qualitative research indicated that although the majority of the Principals understood the importance of interpersonal (counseling-related) skills in school administration, they did not regard empathy as being as important as communication, authenticity and respect and they generally regarded strategic management skills as being more important than one of the interpersonal skills. Implications for the role of Principals as counselor in schools and effective leadership were discussed.

Lynn, Hansford, Brain, Enrich and Lisa (2001) in their study ‘Conversations a means of learning, growth and change examined’ University Collaborative grant in which the role of leaders in managing cultural change across an industry site was investigated. The focus of the study concerns the leadership of a district director in a rural setting in queensland. The study was shaped by the interests of the district director who sought feedback on her leadership style and influence on principals in the district. A team of researchers from the school of professional studies in the faculty of education at Queensland University of technology conducted semi-structured interviews with a sample of six principals. A key finding of the research was that well-led conversations can be effective processional development strategy for learning, growth and change in educational leaders.
Teachers' satisfaction with school discipline policy is related to their relationship with the principal. Good communication and shared values are important elements in this relationship. Student achievement is likely to be greatest where teachers and administrators work together (Morrison, 2002). Ideally, a principal should be able to create consensus among staff on rules and their enforcement. The principal must have knowledge and understanding of effective communication strategies. Creating a collaborative environment and open communication has been described as the single most important factor for successful school improvement initiatives. Good communicators are good listeners. Experts in communications rate poor listening as the number-one problem in human relationships. Principals may want to improve their communication by improving their listening skills.

School climate affects principal's effectiveness. It also interferes with outcomes for teachers and students. Improvement in school climate enhances the principal's effectiveness, teacher's performance, and students' achievement and behavior. This improvement, however, only occurs if the principal, teachers, and students are empowered. Principals must model behaviors consistent with the school's vision and develop a clear purpose in the school, so that student achievement can improve. They must identify and implement instructional strategies that will result in achieving the school's vision and mission.

Johansson (2004) in his study 'A democratic, learning and communicative leadership' observed the relationship between the national curriculum in Sweden and the training of head teachers. The aim of this programme introduced in that head teachers should develop and use a democratic, learning and communicative form of leadership that has its starting-point in the national curriculum.

Kuzma (2004) in his study 'The characteristics of effective middle school principals as perceived by middle school teachers and the principals for whom they work.' explored the congruence, in order of importance, concerning what middle school teachers and school principals value regarding the behavioral characteristics of effective middle schools. Principals. The indications and
suggestions of the research were based on the data collected from three middle schools, representing three different states and three different geographical areas. Information was obtained by distribution of a survey published through the National Middle Schools Association (NMSA) using predetermined characteristics associated with effective leadership. In endeavoring to determine the findings and implications obtained via data, various statistical analyses were done using the SPSS software. Testing included correlation studies, ANOVAs testing with post hoc testing, and other mean analysis tests. Participants were given the opportunity to expand upon the information presented in the survey by using two open-ended questions. Demographic data was also obtained from the 76 voluntary participants. The research suggests that the importance placed on various characteristics of an effective principal is in conflict among participants in the study.

The areas of manager and problem-solver proved to be statistically significant as well as the differences in the value of instructional leader to be noteworthy. With the lowest mean score given this year by the teacher respondents, the data, combined with the responses of the open ended responses. Response of decision maker, strongly suggests that the need for administrators think quickly and can think on their feet. Open-ended responses also reveal that staff was looking for an intelligent, supportive, good communicator who is a consistent person, who makes decision in a timely way and offers an excellent example to all. This is all while he or she demonstrates excellent leadership skills and gets the job done.

George(2005) presented a paper on ‘what are the principal’s skills in school communications’ at the meeting of management institute, Hilton head, Sc. February 17-21. This paper summarizes research regarding the changing role of the principal and methods for assessing school-communication skills within a competency based educational administration program. It examined the leadership-competency areas of the principal ship and describes how expanding school-communication skills may enhance the Principals’ capability for meeting new demands. A comprehensive system for assessing principals’ school communication was presented. An assessment scale, exhibit interview questions
and acceptable answers for assessing whether the assessee has knowledge of communication skills of the principal, case scenarios, evaluation form an case studies are included.

Halawah (2005) in his study ‘The relationship between effective communication of high school principal and school climate’ found that effective schools and instructional leadership emphasizes the impact of Principal leadership on creating safe and secure learning environment and positive nurturing climate. Two instruments were used to measure School climate and communication effectiveness between principals and teachers. Participants were 555 students (293 males and 262 females) and 208 teachers (107 males and 208 females) from Abu-Dhabi district, UAE. Results indicated that school climate is positively associated with Principal’s communication effectiveness and on their climate especially on security and maintenance and instructional management. Significant differences were also observed between males and females for the advantages of female schools on security and maintenance, student behavioral values, student peer relationship and instructional management. Communication between male schools was more effective than female schools.

A key element of an effective school is an effective principal (Gupta, 2005). Although school success is influenced by many people, school principals remain one of the most important factors in this success. Research on effective schools, school restructuring, and instructional leadership point to the impact of principal leadership on student learning and improvement. The effect of the principal on student learning cannot be overemphasized. Establishing safe and secure learning environment and positive, nurturing school climate are merely the first steps in a long series of critically high expectations effective principals set for themselves, as well as the educational communities they lead. Most important, however, is the love for learning and students, which is at the heart of every successful principal (Williamson, 2010). Principals play important role in establishing school discipline, both by effective administration and by personal example. Effective principals are liked and respected, rather than feared, and
communicate caring for students as well as willingness to impose punishment if necessary.

Goodlad (2006), a professor of educational leadership at central Michigan University said, “Communication occurs when the listener understands the speaker in the way that the speaker wants to be understood”. He found to be truly effective as a communicator; one must consider the perceptions of the listener to the environment, his or her response to situations, motivations and the dominant mode of responding.

Jones (2006) in his study the effects of principals’ Human Orientation and principals communication competence on principals’ leadership effectiveness as perceived by teachers examine the relationship between teacher perceptions of principals’ humor orientation, communication competence and leadership effectiveness. Data was collected from 38 elementary teachers from 15 different schools. The instruments used were the human orientation scale (HOS); the Audit of Administration communication (AAC); and the principal leadership questionnaire (PLQ). The findings show that there is a significant relationship between HOS and AAC and AAC and PLQ. Therefore, principals who are perceived as both highly humor oriented and communicatively competent, will over 50% of the time, also be perceived as an effective leader.

Asonibare (2006). In his study ‘Relationships between Nigerian Secondary School Principals’ personality types and their communication skills’ investigated that relationship between Nigerian Secondary School Principals. The respondents were randomly selected from the Principals of secondary schools in six states in Nigeria. One thousand Principals were contacted for the study, 754 of them returned well completed questionnaire forms. The instruments used were Eyesenck Personality Inventory (EPI) developed by Eyesenck and Eyesenck(1964) and Principals’ communications skill inventory (PCSI) developed by the researcher. The hypotheses generated were tested using Pearson moment correlation coefficient and t-test statistics. The study revealed that there was a significant relationship between Principals’ personality types and their
communication skills. It also found a significant difference in the personality types of male and female Principals. However, sex has no significant inherence on the communication skills of male and female respondents.

Based on the findings of the study recommendations were made for communication skill training and the establishment of functional guidance and counseling units in Nigerian schools to enhance effective communication and interaction between the school administrators and the students.

Kowalaski (2007) wrote a book on ‘Effective communication for school administrators: a necessity in an information age.’ In his book he explored that reforming schools in an information based society has made communication an even more critical skill for district and school administrators. Although communication has been identified as an essential area of practice, it has largely been ignored in the study of school administration. He examined the critical nature of communication in contemporary practice for administrators. Divided into two parts, this book examines relationship among communication, public relations, and school reform and address effective communicative behavior in learning organization, democratic leadership, organizational networks, conflict, positive relationships, and site-based management. Effective communication for school administrators is truly a unique text for education professionals and school administrators who wish to communicate more successfully.

Pearce (2007) in his study ‘high School Principal Communication and organizational knowledge creation’ found that there is no significant difference between the principal communication factors or the knowledge creation factors. A mixed research design was utilized. Quantitative data were gathered using researcher – created surveys, and qualitative data were retrieved through interviews. An aggregate analysis of mean showed that each group perceived principals using the socialization factor of knowledge creation most frequently in communication.

Effective communication of school leaders affects these areas with respect to:

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1. Making a school a learning organization.
2. Practicing democratic leadership.
3. Performing critical tasks such as visioning and planning.
5. Building positive relationships.

Sharma (2007) in his study ‘Attributes of school Principals-leadership qualities and capacities’ examined the relationship of teachers’ perception of the leadership capacities of their Principals to the leadership qualities of empathy, communication skills, decision making, time management, comfort etc. Three hundred school teachers from Malaysia participated in the study. Self developed questionnaire on leadership capacities and qualities was given to the sample. The findings showed that the Principals were perceived to be having moderate leadership capacities and moderate level of leadership qualities. However there is strong and positive correlation between perceptions of teachers and communication skills, empathy, decision-making of principals and their leadership capacities.

Bredeson (2008) in his study ‘Principally speaking :An analysis of the interpersonal communications of school principals’ explored communication in any organization is a complex phenomenon-public schools were people centered enterprises in which the primary tasks of teaching and learning were accomplished verbally within each school, the principal is uniquely positioned to regulate these communication activities. The research reported here sought to examine how five school Principals managed communications activities of school Principals are dominated by dyadic interpersonal contacts. The major purposes of these dyadic interpersonal exchanges were maintenance messages which are related to policies, procedures and regulations for organizing, operating and perpetuating the school. As an adaptation to the nature of a principal’s work life. Each Principal demonstrated a pragmatic preference for accomplishing his/her communications through talk even when written messages or other mechanisms for message
delivery would have been more efficient. Finally, the principals believed that the success of their communication activities in school was characterized by openness, honesty, high visibility and the ability and capacity to listen.

McNeil (2009) in his study ‘Communication: The Key to effective leadership’ found that principal – teachers good communication can positively affect school climate. Research in this area should increase the principals’ awareness of the need for keeping an open climate and good communication with their teachers and staff.

Ayson (2009) in his study ‘communication and human relations skills of school Administrators as perceived by themselves and by the classroom teachers.’ found that school administrators and teachers perceived that school head ‘often’ used such communication skills on speaking, listening, writing and avoiding barriers. The study was conducted on 27 school administrators and 104 classroom teachers of twelve schools in northern part of the province of Bohol.

It also revealed that communication and human relation skills are vital factors that enhance the administrative role of school administrators. It also improves the skills and competencies of teacher related to teaching and learning process.

Teacher educational qualifications do not influence their perceptions of the skills and competencies of school heads related to communication and human relations.

Rowicki (2009) presented a paper on communication skills for educational administrators explored the possible solutions to ineffective communications. To promote effective communication, administrators used to solicit opinions and be willing to listen to them. Most administrators tend to give direction instead of guidance, so they need to listen more, ask more questions and encourage faculty members to come up with their own ideas and solutions. School leaders should also know how to control their emotions and concentrate on what is being said.
Since every organization has both formal and informal lines of communication, the idea of following is, a strict chain of command is unwise.

Administrators can enhance communication by using the most effective and efficient line of communication, depending on the situation at hand. Such efficient communication may involve the use of latest technologies, such as local area networks, school leaders should set an example in using these technologies to bolster communication. Administrators are the educational focal point within the school or local community, and they must be able to communicate effectively, any concerns, ideas or news.

NAASP released a new book on March 23, 2010. Ten skills for successful school leaders. It combines the knowledge from NAASP’s Principal assessment centers with the school improvement framework developed. The book describes each skill and provides a set of behavioral indicators. The book suggests activities that Principals can sue to reflect on their own skill and build capacity in each area.

The ten skills are organized into four themes—educational leadership, resolving complex problems, communication and developing self and others. The complete list includes the following:

- Educational leadership
  A) Setting instructional directions
  B) Teamwork
  C) Sensitivity
- Resolving Complex Problems
  A) Judgment
  B) Results Orientation
  C) Organizational Ability
- Communication
  A) Oral Communication
  B) Written Communication
- Developing self and others
  A) Developing Others
B) Understanding your own strengths and weaknesses

Finally, the book provides a protocol for developing one’s own personal learning plan. It supports one’s continued professional growth in a used friendly or non-threatening format.

Elizabeth (2011) in her study ‘Communicate: Improve your relationships with effective communication skills’ found poor communication skills, disagreements and misunderstandings can be a source of anger and distance, or a spring board to a stronger relationship an happier future. To overcome stress management one should stay focused, listen carefully, and Respond to criticism with empathy. Take a time out and should not give up.

2.4 REVIEW RELATING CHANGE-PRONENESS

Geijsel, Sleegers & Berg (1999) in their study examined the nature of transformational leadership and its relation to teachers’ change practices within the context of Dutch Large-scale innovation. The qualitative studies produced three dimensions of transformational leadership: vision, individual consideration, and intellectual stimulation. The results indicate the significance of the dimensions and intervening constructs for future research into the impact of leadership on change teacher practice.

Collins & Waugh (2004) studied ‘Teachers receptivity to a proposed system-wide educational change’ of seven primary classes to secondary schools in Western Australia catholic school system.

Three independent variables, general beliefs about the secondary school and Received readiness to leave primary school, perceived practicality of the change, and the perception that fears and concerns asonated with change was measured. The environment in which teachers work was measured though the (teacher/age, gender, experience, area of expertise and school size) and the school (Primary or secondary, size and location). Receptivity was found to be strongly and positively related to the perceived practicality of the change and moderately.
positively related to perceived readiness of year seven students for secondary schools.

Gupta (2005) in her study ‘A study of values among school principals, their attitude towards modernization and its relationship with the Organizational Climate’ observed that Public and Govt. school principals are quite positive towards values in general and its different dimensions also. Attitude of both the school principals is also positive towards modernization and its various dimensions except religiosity. Public school poses “controlled” type of climate whereas government school posses “familiar” type of climate.

Enomoto (2005) in their study ‘Routines in school organizations: Creating Stability and change’ found out that routinized action theory posits occur for different reasons: failure to produce desired outcome, producing new possibilities, and falling short of ideal targets. In this study, routines were altered by management to address problems, repair what did not work and strive new targets. Management also shifted resources accordingly. While these actions can help the organization survive environmental changes, routines may also restrict the organization’s response to change.

Venkateshwarlu (2006) in his study ‘Changing role of the teachers’ concluded that the quality of education depends upon the quality of the teachers. If radical changes are to be made in education and schools are to survive, then the teachers’ will also have to undergo a lot of change.

Louis and Miles (2006) in his paper ‘Change theory-A force for school improvement’ explored: Standards-based district-wide reform initiatives, professional learning communities; and qualifications frameworks that focus on the development and retention of quality leaders.

The focus in this case was on literacy. A literacy coach was honored in every school in the district and considerable professional development and technical support services were available. Educational Plans for each school were
to focus on literacy standard through data analysis and assessment and subject-area achievement targets, including literacy according the curriculum.

Oplatka (2006) examined female leadership in educational systems within developing countries by reviewing the current research on women in educational administration and suggesting future directions for further research on this subject in non-western countries. The study was based partially on a systematic review of 13 English language papers that had been published in peer-reviewed journals in educational administration, gender studies in education and comparative education. The findings indicated to particular barriers to women’s career advancement in educational systems within developing countries (e.g. strong family obligations, low levels of girl education, minority of men in teaching positions), unique career experiences (e.g. the important role of father), and to the adoption of “androgynous” leadership style by the few administrators in the countries.

Manish (2007) conducted a study ‘A study of school ecology of schools in Delhi and its impact on Learning Science at upper Primary Level’ among 11 schools (Three each of Kendriya vidyalaya, Govt. senior secondary schools, Private schools and 2 Govt. aided schools) of Delhi. 496 students of class VIII and 11 science teachers, whose teaching was observed, continued the sample of students and teachers respectively. The findings of the study indicate Govt. aided schools provide a better social psychological environment for the children of class VIII. Govt. Schools lack the most in terms of providing physical and infrastructural facilities. Public school teachers reflected highest level of general teaching competency in the class followed by the teachers from KVS. The students of KVS and private schools performed best in the achievement test in science whereas the performance of Govt. school children was lowest. The study emerged as the most important predictor of science learning for both pre-service and in-service teachers.

Kannan (2007) conducted a study of ‘effectiveness of use of computer technology in teaching of concepts of Physics at senior secondary level.’
Researcher prepared a questionnaire in physics and administered to fifty teachers. This contained questions on teachers’ qualification, their teaching experience, computer training, teaching methods, difficult topics in class 11 and 12 to be taught by lecture method etc. There were also questions related to computer technology. This questionnaire was circulated to fifty physics PGTs teaching physics at senior secondary level in government aided and public schools and their responses were studied. NPSC (National Progressive Schools conference) school students were considered to undergo achievement tests. The topics for the tests were identified by teaching physics at senior secondary level in Delhi. Five difficult topics in class 11 and fifteen difficult topics in class 12 were considered. Two experimental groups and one control group were considered for the research study among the students. The findings of the study indicated that the computer assisted teaching is the method to teach the concepts of physics at senior secondary level. There is no much profitable learning by the students first by using computer technology to learn the concepts of physics without the aid of the teacher or by the traditional method of teaching physics.

Vellaisamy (2007) conducted a study ‘Effectiveness of multimedia approach in teaching science at upper primary level’ examined the effectiveness of multimedia on the achievement of pupils in science at VIII standard. For this purpose, sample of 520 pupils was drawn from VIII standard of 13 schools of Naggapattinam block. The pupils were divided into two groups. 270 pupils were in experimental group while 250 pupils were in control group. Pre-test was conducted for both the groups. The control group pupils were further divided into five sub-groups consisting of 50, 50, 50, 50 and 70 pupil respectively. The treatment was given to experimental group through multimedia approach. The scientific approach especially in teaching-learning process can be applied through multimedia elements such as graphics, sound, animation, text and images prepared in CDs which were all taken as a treatment of multimedia to experimental group. A tool to measure scientific attitude was also administered before and after the treatment of multimedia approach. Significant moderate positive relationship between learning achievements and scientific attitude was found. The pre-test and
post-test were used to arrive at the conclusion. The pupils of the experimental group achieved more than the pupils of the control group in science at upper primary level. The pupils of the experimental group have improved than the pupils of the control group in their scientific attitude.

Oscarson (2007) conducted a study on ‘The identification of Adoption-proneness among secondary home Economics teachers’ to find the proneness toward the adoption of educational innovations. Data was collected from 19 independent variables relating to the personal characteristics of 202 vocational teachers from the state of Virginia. The analysis proved this study is responsible for the diffusion of educational innovations, especially across broad geographical areas.

Wayne (2008) studied ‘Experimenting with teacher professional development: motives and methods’ He concludes in his study that the benefits offered by experiments in addressing current research needs and for those conducting and interpreting such studies discusses the unique methodological issues encountered when experimental methods were applied to the study of professional development.

Palardy and Rumberger (2008) studied ‘Teacher effectiveness in first grade: the importance of background qualifications, attitudes and instructional practices for student learning.’ The results indicate that compared with instructional practices, background qualifications have less robust associations with achievement gains. The findings indicate that no child left behind act’s ‘highly qualified teacher’ provision, which screen teachers on the basis of their background qualifications, is insufficient for ensuring that classrooms are lead by teachers who are effective in raising student achievement.

Collinson (2008) in his study ‘leading by learning : new directions in the twenty-first century’ found out that organizational learning, along with the components of organizational capacity, intellectual, ethical, social and political skills and values that allow members and leaders of school systems to build the
organization’s capacity, develop leadership, and influence an environment hospitable to collective learning.

Bamburg (2009). In his study ‘Critical issue: Leading and Managing change and improvement’ found leaders of schools must consider equity issues when developing and implementing change initiatives. Principals’ role must be changed from that of a top-down supervisor to a facilitatory, architect, steward, instructional leader, coach and strategic leader.

Rout (2009) in his study ‘A study of the utilization of Educational media at Primary stage’ examined the existing status and utilization of educational radio and television programmes produced by Central Institute of Educational Technology (CIET), National council of Educational Research and Training (NCERT) New Delhi and Broadcasted through Gyanvani (educational FM radio channel) for Educational Radio (ER) programme and DD1 (National TV channel for Educational Television (ETV) programmes respectively. A sample of 60 schools run by Municipal Corporation of Delhi (MCD) was randomly selected from three educational zones in Delhi views and opinions on the utilization of questionnaires and opinionaire. The results revealed that only 50 percent schools have been utilizing educational radio programme while 27 percent schools have been utilizing educational television programme.

Further regularly/occasionally listening and viewing schools of these media were unsystematic in the process of utilization. It was found after close scrutiny of collected data from the headmaster/headmistress (H.M.s), teachers, students and informal observation done by investigator that the genuine cause of non-utilisation of educational mass media was apathetic attitude of the teachers than anything else, through they showed positive attitude towards them on pen or paper. The attitude of schools regularly/occasionally utilizing (listening and viewing) media programme were found to be casual.

Weston (2009) observed that the differential engagement of schools with change and identified a stable relative position of each school on a trajectory from aspiration to practice. These outcomes stand in contrast with funding derived from
prevailing methodologies in term of consistency of stakeholders perspective within schools.

Siddiqui (2009) in his study ‘Availability and use of information and communication schools in Delhi’ observed some interesting trends. The availability of e-mail id among the schools seemed to be low. 94% of the total schools in Delhi have computers. 92.4% of the school reported that the computers were in good condition. Computer labs have been set up in 84% the schools studied. Printers were available in 84.14% of the schools. Internet facility was available in 71.52% of schools covered in the study. Local area networking (LAN) was available in 61.49% of schools.

In this exploratory study, a total of 309 schools belonging to different categories. 822 primary school students, 970 secondary school students and 196 teachers selected randomly from the students of Delhi. Four questionnaires were developed and used.

The findings regarding uses of ICT/Computers in schools in Delhi were also interesting. 84% schools used computers in admission process. 46.93% schools used computers for maintaining records. 18.77% of the schools covered in this study used it for maintaining records in the library. 12.06% of total schools covered in this study used computers for examination purpose. 81% of the schools covered in this study had computer education as a teaching subject.

Douglas (2009) studied ‘sharpening our focus is measuring classroom instruction’. The study revealed that theoretical and practical view points are based on mixed methods research. The value of this body of research is reinforced through evidence of its impact on teaching practices and student-learning.

Burghardt and Hecht (2010) in their study ‘A study of mathematics infusion in middle school technology education class’ examined the effectiveness of middle school student exposure to an ETE curriculum that infuses mathematics to students who were not exposed to the mathematics infused curriculum. Pre/post differences in both student’s mathematical content data and attitudinal data were
examined. The results indicated that students in the infusion group showed significant increases in content scores after being exposed to the mathematics infused curriculum. The results were encouraging, indicating that the infusion group students learned content that increased their mathematics knowledge, above and beyond increases that would exist by virtue of being in a typical technology class. Specific content areas (i.e. pricing information, factoring, percentages, and geometric shapes) showed greater improvements in infusion student knowledge. The study showed that it was possible for students to learn specific mathematics content knowledge in the content in and ETE classroom environment.

Mumcu and Usluel (2010) in their study ‘ICT in vocational and technical schools: Teachers’ instructional, managerial and personal use matters’ examined the teachers’ usage of information and communication Technologies (ICT) in vocational and technical schools in Turkey. According to their age, level of education, opportunity of access to computers and ways of learning to use computers. Study group of the research was four hundred and sixteen teachers from vocational and technical schools in Turkey. Data were obtained a questionnaire which was designed by the researcher. One way analysis of variance (ANOVA) was used to analyze the data. The results of the analysis reveal that teachers use ICT more frequently for the managerial purposes, and the least for instructional purposes and there is significant difference in teachers’ usage of ICT based on their ages, level of education, opportunity of access to computers ways of learning to use computers. Level of education appears as the variable which has the greatest effect on teachers’ purposes of using ICT.

Summons (2011) in his study ‘change –proneness in relation to origin-pawn ideology among the degree college lecturers’ examined the change-proneness and origin of teacher in Vizinagam district. The study was limited to only degree college lecturers. It found that out of many dimensions of teacher efficacy, four dimensions are very important;

- Innovativeness
- Consideration
• Hesitating nature
• Acceptance of help.

The work style of the teachers enables to classify teachers into two categories:

• Those who take risk in introducing new strategies imbibe new ideas and with a high change prone attitude may originate new ideas. They are termed as origins.
• Those who shrink to invite, imitate and imbibe new strategies of teaching due to fear of criticism and failure by being totally reluctant may blindly depend on framework of rules in the hands of others are termed as pawn.

Gaikwad (2011) in their paper ‘class hierarchy method to find change-proneness’ concluded finding proneness of software is necessary to identify fault prone and change prone classes at earlier stages of development, so that those classes can be given special attention. This improves the quality and reliability of software. For corrective and adaptive maintenance, the researcher requires to make changes during the software evolution. As such changes cluster around number of key components in software, it is important to analyze the frequency of changes in individual classes and also to identify and show related changes in multiple classes.

Early detection of fault prone and change prone classes can enable the developers and experts to send their valuable time and resources on these areas of software. Prediction of change-prone and fault prone classes of a software is an active topic in the area of software engineering. Such prediction can be used to predict changes to different classes of a system from one release of software to the next release. Identifying the change-proneness and fault prone classes in advance can help to focus attention on these classes.
In this paper, main focus is on finding dependency of software that can be achieved by evaluating the proneness of object oriented software. Two main types of proneness are associated with OO software, fault prone and change- proneness.

2.5 SUMMARY OF THE REVIEW

2.5.1 School effectiveness

On the basis of related literature, the researcher could draw the conclusion that, the effectiveness of school depends upon the learning environment, monitoring of students’ progress, school facilities and teachers’ quality. (Ajayi and Ekundaya, 2011). It also depends on the head of the institution and it was observed that principals created a work environment that encouraged creative thinking; designed and implemented new and cutting edge programmes; and challenged the status quo. (Agezo, 2010). Social networks and grade levels were associated with more interactions focused on the teaching and learning to reform school performances. (Daly, 2010). Understanding the importance of leader, leadership qualities and a co-operate perspective amongst principals for enhancing school effectiveness, TISS developed a leadership programme for school principals and school leaders. (TISS, 2009). Leaders can help teachers to improve their teaching. (Gigante, 2008). Successful principal ship in high performance schools in high poverty communities needs to be given greater priority. (Mulford and Ewington, 2008). Social contacts affect the productivity of individuals. (Fire Stone, 2008). Cross-cultural programs and leadership are key-factors in the achievement of outstanding educational outcomes. (Dinham, 2005). Principal transformation leadership was not associated directly with either school staff turnover or school-aggregated student achievement progress. (Griffith, 2004). A highly effective principal should be a good communicator, an educator, an envisioned, a facilitator, a change master, a culture builder, an activator, a producer, a character builder and a contributor. (Mcewan, 2003).

The role of technology integration is to raise school performance as related to accountability programming. (Styron and Disher, 2003). Principals do not agree on the performance skills that should be practiced by instructional leadership
and administrative service areas. (Mayer, 2002). The complexity of a debate over SER, the value of pragmatism, the significance of methodological problems, educational policies effect school effectiveness. (Thrupp, 2011). Role stresses, role conflicts and role overloaded are related to individual and organizational outcomes. (Conley, 2000). There is less evidence about school and classroom process that is important in determining school success. (Reynolds, 2001). School effectiveness recognizes the most important aspect of the “success and failure” of schools which can be assessed by the academic attainment of their students. (Saxena, 1995). The physical environment in the school and teaching-learning materials also has positive associations with the school effectiveness. (Varghese, 1995). Level of infrastructure facilities provided in the school play an important role in improving teaching and learning environment. (Buch, 1983). Socio-culture influences also affect school effectiveness. (NCERT, 1999). International seminar, 1995, emphasized on various focal themes related to school effectiveness as classroom factors and learning achievement, home and community factors, student learning, school participation and methodological issues in research at primary stage. (NCERT, 1995). There is evidence of important differences in social/effective outcomes such as attendance, attitudes and behavior. (Mortimore, 1988b). School effectiveness have focused on academic achievement in terms of basic skills in reading. (Goodlad, 1984).

Purposeful leadership, structured sessions, work centered environment, maximum communication between teachers and pupils, record keeping, parental involvement and positive climate are key factors of school effectiveness. (Mortimore, 1993). Strong administrative leadership, a climate of higher expectations, an orderly atmosphere, acquisition of basic skills and ability to divert school energy are key characteristics in school’s success. (Edmonds, 1979). From the above literature, it can be concluded that principals have a significant role to play in all the factors which contribute towards school effectiveness.
2.5.2 Emotional Intelligence

There is a positive relationship between leadership and emotional intelligence. (Dominguez, 2003). Principal’s emotional intelligence, leadership style, openness, and other variables presumed related either directly or indirectly to student achievement. (Reed, 2005). Success of a learning organization such as a public school may be affected by principal’s emotional intelligence. (Calderin, 2005). Emotional intelligence of a school principal influences school culture. (Barent and Marie, 2005). EQ of principals provides a new way to understand and assess people’s behaviors, management styles, attitudes, interpersonal skills and potential. (Kumar, 2006). Emotional management, personal and impersonal management, self-satisfaction and career perfection affect social and psychological dimensions of emotional intelligence (NCERT, 2007). Principals perceive themselves to be different in decision making styles which affect relationships with teachers’ professional growth and organization health. Principals of private schools are somewhat more creative in their decision making styles as compared to government schools. (Malhotra, 2007). Principals feel that they need good knowledge of self to be flexible and adapt problem solving approach. (Speath, 2007). Teachers wish to be led by school principals who are confident in their collegial leadership role and who maintain self-control, are adoptable and flexible and who face the future with optimism. (Singh and Manser, 2008). There is a positive relationship between the competencies related to emotional intelligence, optimism, self-awareness, and empathy and achievement orientation. (Craig, 2008). Urban and typical principals differ in conceptualization and adaptation of their external organization environment. (Williams, 2008). Studying emotional intelligence provides leaders with awareness necessary to meet the needs of a staff that is engaged in developing a common vision for their schools. (Moore, 2009). New educational leaders will need to have a strong sense and moral response for direction and great emotional intelligence as they build relationships. (Stephens and Hermond, 2009). Conferences should be organized to review, analyze and demonstrate the impact of EI in practice, in health, education, and organizations. (2009). There is no relationship between emotional intelligence of principals and
mathematical scores of the students. (Flores, 2009). There are Principals with low emotional intelligence have poor relations with their staff. (Cerrius, 2011). Three aspects of emotional intelligence i.e. interpersonal awareness, intrapersonal awareness and interpersonal management have a positive relationship with consciousness. (Kalra and Nisha, 2012).

There is a strong relationship between emotional intelligence and effectiveness of school leaders and quality of school. This has been established by various researchers like Flores (2009), Kumar (2006), Craig & John (2008) and Stephens and Hermond (2009).

2.5.3 Communication skills

Good communication and shared values are important elements in the relationship of a principal and students. (NAASP, 2010). Principal should understand the importance of interpersonal skills in school administration. (Yee Yeung, 2000). Effective communication skills are essential for good teaching practice. (Saunders & Mills. 1999). Well led conversations can be effective professional development strategy for learning, growth and change in educational leaders. (Lynn et al, 2001). Teachers should develop and use a democratic, learning and communicative form of leadership that was its starting point in national curriculum. (Johansson, 2004). An intelligent, supportive, good communicator who is a consistent person, who makes decision in a timely way and offers an excellent example to all. This is all while he or she demonstrates excellent leadership skills and gets the job done. (Kuzma, 2004). Role of principal is changing and also the methods for assessing school-communication skills within a competency based educational administration program. (George, 2005). Effective schools and instructional leadership emphasizes the impact of principal leadership on creating safe and secure learning environment and positive nurturing climate. (Halwah, 2005). To be truly effective as a communicator, one must consider the perceptions of the listener to the environment, his or her response to situations, motivations and the dominant mode of responding. (Goodlad, 2006). Principals who are perceived as both highly humor oriented and communicatively competent
are effective leaders. Sex has no significant inherence on the communication skills. (Asonibare, 2006). There is relationship in effective communicative behavior and learning organization. (Kowalski, 2007). There is no significant difference between principal communication factors or the knowledge creation factors. (Pearce, 2007). There is strong and positive correlation between perceptions of teachers and communication skills, empathy, decision making of principals and their leadership capacities. (Sharma, 2007). Principals believe that the success of their communication activities in school are characterized by openness, honesty, high visibility and the ability and capacity to listen. (Bredson, 2008). Principal-teachers good communication can positively affect school climate. (Mcneil, 2009). Communication and human relation skills are vital factors that enhance the administrative role of school administrators. (Ayson, 2009). Administrators must be able to communicate effectively, any concerns, ideas or news. (Rowicki, 2009). Poor communication skills, disagreements and misunderstandings can be a source of anger and distance, or a spring board to a stronger relationship. (Elizabeth, 2011).

From the above literature, it can be concluded that good communication skills are important for principals as these determine the way in which they are able to express their ideas and thoughts.

2.5.4 Change-proneness

Receptivity is strongly and positively related to the perceived practicality of the change. (Collins and Waugh, 2004). There is impact of leadership on change teaching practices. (Geijsel, Sleeegers and Berg, 1999). Original responsibly of the Principal in the centralized system is to be guarantor for good quality and to see that the state of curriculum is carried out in accordance with the intentions in the law. (Jones, 2004). Public and government school principals are quite positive towards values in general. (Gupta, 2005). Reutilized action theory posits occur for different reasons: failure to produce desired outcome, producing new possibilities and falling short of ideal targets. (Enomoto, 2005). Quality of education depends upon the quality of teachers. (Venkateshwarlu, 2004).
Professional learning communities and qualification frameworks that focus on the development and retention of quality leaders. (Louis and Miles, 2006). There are particular barriers to women’s career advancement in educational systems within developing countries. (Oplatka, 2006). Government aided schools provide a better social psychological environment for the children. (Manish, 2007). Computer assisted teaching is the method to teach the concepts of physics at senior secondary level. (Kannan, 2007). The pupils of the experimental group have improved more than the pupils of the control group in their scientific attitude. (Vellaisaney, 2007).

Adoption-proneness is responsible for the diffusion of educational innovations, especially across broad geographical areas. (Oscarson, 2007). Experimental methods are applied to study professional development. (Wayne, 2008). It is insufficient for ensuring that classrooms are lead by teachers who are effective in raising student achievement. (Palardy and Rumberger, 2008). Organizational learning and developed leadership influence an environment hospitable to collective learning. (Collinson, 2008). Leaders of school must consider equity issues when developing and implementing change initiatives. (Bamburg, 2009).

In India only 50 percent schools have been utilizing educational radio programme while 27 percent schools have been utilizing educational television programme. (Rout, 2009). There is differential engagement of schools with change. (Weston, 2009). 81% of the schools in Delhi have computer education as a teaching subject. (Siddiqui, 2009). Theoretical and practical viewpoints are based on mixed methods of research. (Douglas, 2009). It is possible for students to learn specific mathematics content knowledge in the content and in ETE classroom environment. (Burghardt and Hecht, 2010). Teachers use ICT more frequently for the managerial purposes, and the least for instructional purposes. (Mumcu and Usluel, 2010). Teacher efficacy depends upon innovativeness, consideration, hesitating nature and acceptance of help. (Summons, 2011). Finding proneness of software is necessary to identify fault prone and change prone classes at earlier stages of development. (Gaikwad, 2011).
From the above literature, it can be concluded that the capacity to accept change, think afresh and innovate are considered to be significant for an educational leader.