CHAPTER II
REVIEW OF RELATED LITERATURE

2.0 Introduction

Man has the unique privilege of not having to “begin a new in every generation, but can take advantage of the existing knowledge which has been accumulated through the centuries” this fact is of great importance in Research. The Mines of knowledge explored by previous researchers, not only leads the researcher to greater understanding of the research problem and stimulates the research scholar but provides a platform for comparative data that could serve, as the basis for the evaluation and interpretation of research. To be able to benefit from the previous research, a survey of related literature becomes imperative.

George J. Mouley (1963) states that it promotes a greater understanding of the problem and its crucial aspects assures the avoidance of unnecessary duplications. The Survey of the literature is a crucial aspect of the planning of the study and the time spent in such a survey invariably is a wise investment.

John W. Best (1977) states, “A brief summary of previous evidence that the researcher is familiar with, what is already known and what is still unknown, untested”.

Research must be based upon the prior work done by experts, which may help to eliminate, the duplication of what has already been done and provides suppositions for meaningful investigation. Knowledge of related literature enables the investigator, to define the frontiers of his field” It can also give the student, a great deal of insight into the memos, measures,
subjects and approaches used by prior research workers and can thus lead to significant improvement of her design. (D. Rajendra Prasad, 1992).

Review of related literature, occupies a prominent place in the research project. The Literature review is concerned primarily with the research and writing connected worth the main subject matter of the research study. The principal purpose of the literature review is to establish the academic and research areas, which are of relevance to the subject of the research. (Paul Oliver, 2004)

The investigator has traced out various categories of research works like dissertations, theses, journals and various relevant books on Economics and psychology of Education, mainly in the field of Innovative Teaching practices, School Organizational Climate, Job Satisfaction, Job Involvement and Creativity of Higher Secondary Teachers in Tamilnadu”.

2.1 Related Studies to Innovative Teaching Practices

“The intuitive mind is a sacred gift and the rational mind is a faithful servant. We have created a society that honours the servant and has forgotten the gift”.

Albert Einstein

Carl Rogers (1962) the eminent social psychologist and Shoemaker (1971) have identified five characteristics of innovations.

Relative Advantage, Compatibility, Complexity, Triability, Absorbability. According to Havelock (1973), seven characteristics of innovation are identifiable, of which 5 are intrinsic and two, extrinsic factors.

- Scientific status of the innovation developed.
- Value loading or acceptance as per social and cultural values.
- Divisibility or availability in small parts as related to the whole.
- Complexity which should be less for the adoption of an innovation.
- Easy communicability which is essential for the acceptance of an innovation.
- Compatibility which refers to the congruence of an innovation with the adopter system.
- Relative advantage as perceived by the adopter over the proceeding practice.

Innovations which are easily divisible into small parts, effectively communicable, not very complex and advantageous, can relatively succeed as compared to those which do not possess these characteristics.

Noted economist and Princeton Professor emeritus, William J. Baumol (2004) in his paper entitled “Education for Innovation” outlined the negative impact formal education can have on innovative thinking capability because it so completely indoctrinates individuals in the expert thinking of a field. He notes that many breakthrough inventions are the work of individuals who have relatively low levels of formal training. He cites the Wright brothers as well as other relatively under–formally –educated examples – such as Bill Gates, Thomas Edison and Steve Jobs. Baumol introduces the hypothesis that education meant to help a student master a subject might be completely at odds with fostering innovation in that subjects.

According to Robert E. Johnston, Jr and J. Douglas Bate (2007) Strategy innovation is a process of exploring emerging future, understanding the needs of the students and using the insights gained in those explorations to identify new business opportunities for the school or the class room. Strategy
innovation is aimed at growing upon top line; new opportunities help drive new teaching and learning strategies which drive future growth.

**Cynthia Barton Rabe (2008)** defines innovation as ‘the application of an idea that results in a valuable improvement’. An idea may be fresh and ‘innovative’ for some people, but old hat to others. Few innovations simply materialize as if from nothing. The opportunity is to establish a climate where any type of idea that might have value can flourish.

**Arthur B. Vangundy (2008)** in his book, “Getting on to Innovation”, speaks of constructing conceptual maps for innovation. According to him, visual diagrams traditionally have been used as part of project and knowledge management because of their ability to portray complex processes and relationships. They can introduce order and structure to help simplify what often is ambiguous

- **Mind maps:** Tony Buzan developed mind maps which are used to collect information and organize it by using branches of associations. Visually they might appear as branches of a tree. Mind maps begin with a central concept or word. Then lines are added to other words associated with that central concept and words or concepts are written to describe each preceding word. Each of these secondary words or concepts may have lines radiating out from them, which in turn may have additional lines and concepts until you have exhausted all categories or space.

- **Concept maps:** Professor Joseph D. Novak of Cornell University is believed to be the originator of these maps in the 1960s. Basing his work on that of American Psychologist David Ausubel. According to Novak and Canas, now researchers at the Florida Institute for Human and Machine Cognition, concept maps are graphical tools that help to organize and represent knowledge while showing how different
concepts are related. They are typically help to clarify relationships among hierarchically ordered, interrelated and innovation challenge objectives. Each node of concept map represents an objective used to achieve other subordinate objectives.

- **Strategy maps**: Robert Kaplan and David Norton designed special type of concept maps known as strategy maps in recent years, developing the balanced scorecard (BSC) approach to management strategy. A variety of such maps have been used over the years, some more formal and complex, than others. Rhwey made differences between strategies and objectives. An objective would be something like we want to be the number one; a strategy in contrast is how to achieve that objective.

  **Tim Coffey, Dave Siegel and Mark Smith (2009)** think of innovation as the understanding and gathering of insights, needs and opportunities. Then it is the idea generation based upon this understanding. It is the refining and sharpening of these ideas and the development of a go-to-market strategy.

  **Luis S.R.Vas (2009)** gives the following as the conditions for successful innovation

  - Innovation involves sustained purposeful work

  - It has to built on strengths, knowledge, capabilities- one has to fit in and have command over every aspect of innovation

  - Innovation has a social and economic impact.

  He gives the following as the programme to remove perceptual and conceptual blocks to creativity and programming the mind to perceive and develop ideas into innovations. It includes being aware of the blocks to
creative thinking and eliminating them- perceptual blocks, emotional blocks, cultural blocks, environmental blocks and intellectual blocks.

Breaking the blocks- creative thinking is to be done when the body temperature is at its peak. Visualizing creative ideas is to be done in relaxed conditions. The problem at hand is to be thought of in different ways to find solution, trying to solve it visually, verbally and mathematically. Creative control system: sitting comfortable, breathing in deep, relaxing the muscles the review of all the facts relating to the problem to be solved could be thought of. The control system works best when practiced before going to sleep at night

2.2 Studies Related to Organizational Climate

One of the biggest preludes to the study of job satisfaction was the Hawthorne studies. These studies primarily credited it Elton Mayo (1924 – 1933) of the Harvard Business School, sought to find the effects of various conditions on workers productivity. This finding provided strong evidence that people work for purposes other than pay, which paved the way for researchers to investigate other factors in job satisfaction.

Hairpin and Croft (1963) have identified six types of organizational climate conditions prevailing in schools.

- **Open climate** schools function independently and with interest towards the attainment of the goal set.

- **Autonomous climate** activities and programmers generate from the group and not percolate from the top.

- **Controlled climate** care for the human concerns will not be paid attention.
- **Familial climate** control will be less and care for human concerns will be more.

- **Paternal climate** the head of the institution likes to take the responsibility for all the activities and leads the team from the front.

- **Closed climate** The head decides everything unilaterally and implements them ruthlessly

So, it could be concluded that innovation finds acceptance by teachers in Schools, where proper organizational climate is made to prevail and where everyone feels their responsibility and serves in the interest of the institution. The open climate generated a higher degree of conformity in the teachers while the closed climate caused a low degree of conformity. (2) In closed type of climate the level of the tenses of the teachers was high, (3) organizational climate was significantly related to teachers attitude. The open climate was found to lead to more positive attitude, and the closed climate to a less positive attitude in college teachers, (4) the college climate was not found to be different between urban and rural colleges, undergraduate and post graduate colleges, private government college and professional and non – professional colleges.

**Fernandez (1990)** made an investigation on a study of the psychological aspects of human relations in educational administration of heads of schools. The study explores the influence of psychological factors like the headmasters ego state, basic assumptions about the motivation for work on the part of teachers and the organizational climate and on the headmasters’ sharing and shouldering of administrative responsibilities. The major objectives were; (i) to identify the pattern of distribution of the grades of human relations in school administration task responsibilities, and (ii) to explore the relationship between the grades of human relations on the one hand and the headmasters’ / headmistress’ ego states, (b) his / her mode of
thinking (i.e. logical or intuitive) (c) his / her basic assumptions about the motivation of work on the part of teachers, (d) the organizational climate on the other.

SittiriENCHAI (1995) has studied the organizational climate and professional involvement of nursing college faculties’ ministry of public health. The purpose of this study was to describe the organizational climate and professional involvement of the nursing college faculties governed by the ministry of public health and to examine the relationship between the organizational climate and professional involvement. The subjects 265 nursing college faculties, were obtained by using a proportional stratified random sampling method.

The results of this study were; the mean score for the professionalism behaviors of the professional nurse was 10.88 out to a total score 24. behaviors are weighted within each of 8 subparts to equal 3 and the mean score for the 8 subparts; theory, professional organization participation, continuing education competence, adherence to code for nurses, self regulatory autonomy, research, community service orientation and publication and communication were 2.23,2.23,2.03,1.47,1.28,60,58 and 46 respectively. The score of professionalism behaviors of the nurse administrators was higher than the staff nurses in all subparts and were statistically significant differences (p<.001). There were positive relationships between the total score of professionalism behaviors and personal factors including age, years of work, working position and educational level of the professional nurses (r = 50.52,56, and 32 at p<.001)

Ediger and Rao (2004) opines that each student should feel success in learning, in achieving knowledge and skill objectives. Feelings of failure make for a lack of achievement and enjoyment. Sequence in learning assists the learner to experience a curriculum of learning activities to achieve
objectives need to follow the psychology of learning tenets. Each student must be respected and accepted to attain as optimally as possible.

Gewertz (2007) Bronx Lab was opened in 2004. From the start New York City based Bronx Lab as a model that features “Distributed counseling” Meaning that all faculty and staff members not just a handful of experts to advise and support students on academic and personal issues. In the Institute model, distributive counseling and advisory groups do not function in isolation. They are integral parts of a relationship driven collaborative way of running a high school. An attempt is made in the study organizational climate with teachers’ self concept and their attitudes, to find out the relationship between the organizational climates of the different colleges. The main objectives were (i) to study the relationship between organizational climate and teachers’ self-concept (ii) to investigate the relationship between organisational climate and teachers’ attitude towards their job, and (iii) to study how organizational climate is related to some other organizational characteristics such as location, sex, undergraduate, post graduate colleges, type of management and professional non-professional colleges.

A sample of 520 teachers was drawn from 104 colleges of Gouache University. The school organizational climate description questionnaire by Motile Sharma, and personality differential questionnaire by Aaural and the teachers Attitude scale by Hula were used. Mean SD, chi – square ratio were used to analyze the data.

Nonis and Hudson (2004) stated five dimensions of students’ perceptions of effective teaching which include rapport, classroom interaction, enthusiasm, clarity and learning. Berk (2005) derived twelve strategies to measure effective teaching which include student ratings, peer ratings, self-evaluation, videos, student interviews, alumni ratings, employer ratings, administrator ratings, teaching scholarship, teaching awards, learning
outcome measures and teaching portfolios. Miron and Segal (2004) state the university students rated their lecturer by their ability to transmit knowledge rather than according to the university’s criteria of research and publication. They added that good teacher and effective instruction were used interchangeably although they are not identical. On the teaching method issues, Walberg (1999) defined teaching-centered approach as direct teaching which emphasizing systematic sequencing of lessons, a presentation of new content and skill.

Colker (2008) reported that teachers claimed there were four characteristics of an effective teacher which include having a sound knowledge of subject matter, taking personal interest in each student, establishing a caring or loving or warm atmosphere and finally to show enthusiasm with students. Colker (2008) identified the twelve characteristics of teachers that children believe are integral factors to effective teaching. There is passion, perseverance, willingness to take risks, pragmatism, patience, encouragement, openness, capacity for dialogue, listening, problem-solving, discernment and clarity.

In 2000, the Australian government commissioned a research into Science in Schools (SIS) with the aim of developing an effective change strategy to support schools to improve science teaching and learning Tyler (2004) Their interest was to develop a framework for describing effective teaching and learning of science. Over the last two decades there are reflections across nations that teaching and learning of science is problem in the secondary school level Harlen (1999) Tobin and Fraser (1988) Yager, Hidayat and Penick (1988) what this portends is that efforts made so far to improve the teaching and learning of science

Oldie (2004) noted that a major defect in our system of education is that science is presented dogmatically in most schools as series of disjointed
facts and concepts which students find difficult to relate to the real world. The persistent poor performance in science subjects at School Certificate level, Achor (2003) Ogbeba (2009) Umoren and Ogong (2007) has given rise to an assumption that most science teachers in secondary schools in Nigeria probably do not make use of varied forms of teaching strategies to be able to cope with some specific difficulties associated with the teaching and learning of science by both the teachers and the students respectively.

Venille (2004) Varles et al., (2006).for instance examining previous studies conclude that such studies, think of students’ knowledge as coherent, consistent and systematic, consisting of mental models and conceptual frame works. This introduces two key aspects: ideas and the applicable theories. We must agree here that both ideas and theories are necessary for science teaching and learning and, as expressed by Dewey (1929) and Duschl (1990), the two interact and influence each other significantly.

Given the diversity of learners and the views expressed in many lecture rooms and classrooms, the science teachers’ role needs to be different – less about being ‘know-all’ in the classroom and more about managing the construction of knowledge between participants Barbosetal (2004) The issue of effective management is what makes a difference between one science teacher and another. Some teaching methods involve the learner than others and sometimes even add meaning to everyday life. This point was stressed by Barboloda et al (2004) when they said that very little of what science teachers and lecturers teach will be directly used in their students’ lives. It is on this basis that they advocated for teachers’ need to look beyond the ‘utility argument’ of the subject to see what aspects of science are needed to enrich lives with an understanding.
2.3 Studies Related to Professional Satisfaction

Rabinowitz and Hall (1977) in their review of the literature on job involvement, found several studies, for example, where individual characteristics such as age, education, sex, tenure, need strength, level of control and values were linked to Professional involvement, although these linkages were not very consistent across studies. Similarly, they described other studies in which Professional involvement was related to situational variables in the work environment such as leader behavior, decision making processes, interpersonal relations and job characteristics as well as with work outcomes such as job satisfaction, turnover and absenteeism. Furthermore, they suggested that individual difference and job characteristic variables were equally in portent in determining Professional involvement.

Saal, (1978) in a study of manufacturing employees, found that perceived job characteristics were a better predictor of Professional involvement than individual difference variables. This conclusion has received further support from Koop (1986), and in a study by Elloy, Everett and Flynn (1991). The authors found that situational characteristics, as well as outcome variables each displayed comparable amounts of common variance with job involvement and considerably more than personal characteristics.

Ramakrishnaiah (1980) investigated the job satisfaction, attitude towards teaching and job involvement of college teachers. He attempted to study job satisfaction, attitude towards teaching and job involvement of college teachers working in S. V University area. The main objectives were; (i) to estimate the level of Professional satisfaction of college teachers, (ii) to find out the relationship between personal and demographic variables and job satisfaction of teachers (iii) to find out the relationship between attitude
towards teaching and job satisfaction (iv) to find out relationship between job involvement and Professional satisfaction.

The major findings were 1. College teachers in general were satisfied with their job. 2. Teachers working in private college were more satisfied than those working in government colleges. 3. Female teachers were found to be more satisfied than the male teachers. 4. There was no significant difference between the level of job satisfaction of Junior college teachers and of Degree college teachers. 5. Teachers belonging to different socio economic strata did not differ in the level of their job satisfaction. 6. Teachers who had a low attitude towards teaching exhibited the least satisfaction with their job while the high attitude group had the highest job satisfaction 7. The level of Professional involvement of teachers did not have any significant effect upon the level of their job satisfaction.

Kenning (1982) constructed valid instruments of Professional involvement and situational and work outcome variables. The purpose of this study was to examine the relationship between Professional involvement and certain individual, situational and work outcome variables. Continuing efforts to investigate the correlates of Professional involvement on a variety of organizational setting contributes to a theoretical synthesis of the construct and definitional clarity. Hence, the results of this and similar studies would be to identify and more accurately assess the impact of variables that can be used as predictors of Professional involvement. Such information in turn be of considerable value in explaining variations in the level of Professional involvement both within and between organizations.

Patel Banamali (1983) carried out a comparative study of prospective and in-service high school teachers, in relation to their attitude to teaching and self-concept. The finding of the study is that, the prospective teachers have a
more favorable attitude towards the teaching profession, child centered practices and possess less favorable attitude towards the pupils.

Durow William Patrick (1987) studied Ambiguity tolerance and Intuition in the Management Style of selected Iowa school administrators the purpose of this study was to measure the degree to which tolerance for ambiguity and an Intuitive Management Style were qualities that distinguished an exemplary sample of Iowa public school superintendents and from other samples. The two sample groups were drawn from the population of public school superintendents in Iowa by means of peer- selection process. Those superintendents rated highest were categorized as ‘exemplary’, those rated lowest were termed ‘other’, the participants responded to a career demographics page and a 47th item questionnaire composed of parts of the mobius psi- Q1 Test, the Myers Briggs Type Indicator, and the Rydell –Rosen Ambiguity Tolerance scale. And the Budner scale of Tolerance – Intolerance of Ambiguity.

The study sought demographic information concerning career mobility and job satisfaction. Hypotheses were tested concerning ambiguity tolerance and intuition. Right brain, integrated brain, and intuitive decision making styles were investigated within the hypothesis on intuition. Both separate and pooled ‘t’ tests were used to analyze the data. A 0.05 level of statistical significance was employed.

Findings revealed that exemplary superintendents were slightly more upwardly mobile and expressed a somewhat higher degree of job satisfaction than did members of the ‘other’ sample. No significant differences were found in right brain, integrated brain, intuitive decision making processed, or ambiguity tolerance between the two samples. Mistry (1987) investigated Need Achievement, job satisfaction and job involvement as a function of Role Stress, Locus of Control and participation in Academics.
In the study, six different research tools were employed to collect the data. ‘The Satisfaction, Dissatisfaction Employers Inventory’ developed by latter and adapted by Hasan, ‘Your feeling about your Role’ scale and ‘Motivational Analysis of Organization Questionnaire’ (MAO) developed by Pareek, a ‘Psychological Participation Index’ developed and standardized by Pestonhee and a ‘General Inventory’ prepared for the study to gather general information about age, tenure, socio-economic condition and information pertaining to the job. 202 subjects were selected from colleges and secondary schools in Ahmedabad. ‘Multiple regression analysis’ was carried out to estimate the contribution of various independent variables to three dependent variables namely: job satisfaction, Professional involvement and achievement.

The major findings were significant relationship observed between locus of control and various dimensions of satisfaction. The climate of academic motivation was found to be significant with such dimensions as job satisfaction, involvement as well as overall satisfaction. The climate of control was found to be negatively correlated with the aspects of job satisfaction and with total job satisfaction. The climate of dependency had no effect on various aspects of job satisfaction and job involvement. Professional involvement was found to be significantly and positively related with different aspects of job satisfaction. Self role distance was found to be significantly but negatively correlated with all the dimensions of job satisfaction, inter-role distance, role stagnation, role ambiguity, role overload, role inadequacy and overall indices of role. Stress has been found to be negatively associated with all but social relations dimensions of job satisfaction.

Research by Rine Hart and Short (1994) showed a positive relation between empowerment and job satisfaction. They state that to increase job satisfaction amongst teachers, school administrators and policy makers should develop management structures that enhance teacher empowerment.
Paula M. Short (1994) discusses this topic of teacher empowerment in further detail. According to Short, teacher empowerment can be divided in six dimensions: involvement in decision making, opportunities for professional development, teacher status, teacher self-efficacy, and autonomy and teacher impact. Five of these constructs were used in our questionnaire.

Michael and Others (1997) examined the relationship between job satisfaction, organizational commitment and intention to stay. The findings displayed an unusual characteristic that pay satisfaction is isolated from job satisfaction and commitment. Elzbieta (1997) examined elements of job satisfaction and individual social background among four professional groups, namely, Doctors, Engineers, Lawyers and Teachers, as well as their differences in level of job satisfaction / dissatisfaction. Although there were some differences between professional groups in terms of work satisfaction / dissatisfaction, stemming, among other things, form the different prestige ascribed to each profession, to a large extent, they face similar problems and derive similar satisfaction from their professional work.

Beegum (2001) attempted to examine the role of certain factors presumed to be related to job satisfaction among college teachers. The study revealed that job satisfaction among college teachers was related to certain socio-demographic variables such as faculty, region, locality, caste and community mode of conveyance and education of spouse, it also found that job satisfaction of college teachers were related with certain personality variables like self-esteem, materialism, spirituality, orientation and thoughtfulness.

Chumma (2002) analyzed the job satisfaction among the faculty members of degree granting colleges of education in Nigeria. From the findings of the study, the researcher concluded members of degree granting colleges of education in Nigeria were satisfied with their overall aspects of
their working situations. The greatest source of job satisfaction was coworkers, followed by supervision. Faculty members were least satisfied with pay and opportunities for promotion. The study also conclude the demographic variables (sex, age, level of education, teaching experiences, salary, grade level, state of origin and religious affiliation) affect the faculty members job satisfaction.

Singh and Sinha (2002) conducted a study on work ethic and focus of control among Indian manager. The study concluded that internal would show high work ethic compared to externals because internals perceive themselves as having greater control over environment, possibly because they can exert more effort and show more persistence for goal achievement specially it was hypothesized that focus of control would be a significant predictor of work ethic and internality would possibly related with it.

Mei-Jing (2003) analyzed job satisfaction variables among state institutional special education teachers. Major findings of the study were (i) the collective contribution of the predictor variables was statistically significant in predicting the job satisfaction of Institutional special education teachers (ii) the individual contribution of teacher principal relations and school facilities and supportive services were statistically significant in predicting job satisfaction of Institutional special educators.

Austin (2004) investigated the relationship between Mississippi public secondary teacher’s perceptions of school climate and their level of job satisfaction. Findings of the study showed that teachers with high level of job satisfaction indicated more favorable impressions of school climate than the teachers of low level job satisfaction. The variables of the subject taught and type of the school district, appointed or elected superintendent did not make a difference in the relationship between level of job satisfaction and perception of school climate.
Hasan and Sonhadji (2005) conducted a study to examine the relationship between level of education, academic rank, salary, and job satisfaction of full-time community college faculty. For this purpose, the investigator measured job satisfaction using a job description index which had subscales: work, pay, promotion, supervision, co-workers, and job in general and identified demographic characteristics of the faculty. The results of the study were: (i) the proportion of variance of satisfaction with pay explained by the level of education, rank, and salary was significant. (ii) The increment in variance of satisfaction with pay accounted for by salary after level of educational and academic rank had been taken into account was significant. (iii) The promotion of variance in satisfaction with promotion accounted for by level of education, rank, and salary was significant. (iv) The relationship between academic rank and satisfaction with promotion after controlling level of education and salary was significant.

2.3.1 Stress and Burnout

Kishanpuri (1976) analyzed the emotional problems of the teacher in the classroom. He concluded that the sources of frustration and annoyance which have been arranged in descending order of frequency are: Children’s behavior in the classroom, attitude towards work, personality traits, school regulations, un-cleanliness, and objectionable personal habits, damaging the school property, playground behavior, educational trips, and excursions.

Kanwaljit Kaur (1989) through her investigation found out that more successful teachers tend to be less authoritarian and possess a favorable attitude towards teaching. Psychologists have interpreted adjustment from two important points of views: one adjustment as an achievement and another adjustment as a process. The first point of view emphasizes the quality or efficiency of an individual, where he can perform his duties in different
circumstances and the second lays emphasis on the process, by which an individual adjusts in his external environment.

Research has suggested that a number of stressors are intrinsic to teaching. In the Travers and Cooper (1997) study, work load and long working hours emerged as particular issues for English teachers as opposed to colleagues in France. When Travers and Coopers (1997) questioned British teachers across all educational sectors high work load, poor status and poor pay emerged as 7 major sources of stress. Classroom discipline is also a significant source of stress. Evaluation apprehension is an issue of increasing importance, as quality assurance produces increasingly demand lesson observation.

Ghadially and Pramod (2001) conducted a study on stress, strain and copying style of female professionals. The study revealed that (i) the salient stressors in India were inadequate pay, under utilization of skills, variability in work load, frequently reported strains include tension and fatigue. Reading to increase knowledge, planning and goal setting were major adaptive responses (ii) on social readjustment rating scale; no significant problem was reported in majority of cases, while some reported mild or moderate problems.

Mishra, M.A. (2004) conducted a study on meaning in life, stress and burnout in teachers of secondary schools in Calcutta. The main purpose of the study were (i) to study of teachers varied in life and if they showed a trend towards low or a high meaning (ii) to identify important sources of meaning is a personal and professional life of teachers and to investigate of teachers varied in the degree of meaning derived from the sources (iii) to find out the relationship of any among the different measures of meaning of life (iv) to identify the main sources of stress in teaching and to investigate of teachers varied on the extent of experienced stress (v) to study the relationships
between stress and burnout meaning in life and stress and meaning in life and burnout in teachers.

Gary (2005) conducted a study on variables related to anxiety, depression and hostility of teachers employed in southern new England single high school district with declining enrolment. The study examined variables related to anxiety, depression and hostility of secondary teachers. The major findings of the study (i) teacher anxiety increased as the rate of enrolment decline of a school increased (ii) teacher anxiety increased as the number of teachers who reported actual job loss increased (iii) teacher anxiety increased as enrolment decline and school size increased. It may be concluded from the foregoing studies that the learned helplessness is a negative characteristics of one’s personality. It is correlated to salary, under utilization of skills, job involvement, job stress, burnout, role insufficiency, role ambiguity, role conflict and ambiguity of a person. There is a difference between empowerment and learned helplessness.

The major findings were (i) Both individual and organizational factors determined job involvement of the college teachers. (ii) Job involvement was positively correlated with job satisfaction and job characteristics (iii) Constituent college induced more job involvement identification with institution. It may be concluded that job involvement is positively correlated to job satisfaction, age, experience, psychological needs, tenure, education of the respondents, job anxiety, job characteristics, salary, type of organization in which the employees are working, motivating and involving a psychological climate. There is no correlation of income, ego strength, and occupational strength with job involvement.

2.4 Related Studies on Professional Involvement

Dodge (1943) in the study of personality traits of successful teachers found that the successful teachers as rated by superiors were less subject to
fears. Blais (1946) found that personality maladjustment in experienced teachers as measured by the ‘Rorschach test’ was relatively high. In a study of 203 experienced teachers and 152 prospective teachers he found 88 percent of the experienced teachers to be maladjusted as compared with the 2 percent of the prospective teachers.

Lambe (1951) found no significant difference between the personalities of good and poor teachers rated by the principals and supervisors. Hearn (1952) in his case studies of unsuccessful teachers’ health as a factor of importance.

Falkerson (1954) reported on a study done by Cook with teachers in Minnessotta, indicated 50 items which discriminated between low and high level of professional involvement. Singer (1954) found a moderately significant negative correlation of – 411 between social introversion and success as measured by composite criterion.

Heil (1960) and others concluded that well integrated teachers were more effective with all types of children; where as weakly integrated teachers were ineffective with everyone except the ‘Strivers’.

Sherry (1964) constructed a predictive battery for success in teaching. The battery included the following tests: intelligence test, interest inventory, personality inventory and attitude scale. Intelligence was found to be most important factor for success in teaching.

Deva (1966) in his attempt to predict teaching success used five predicted variables viz. intelligence, social adjustment, personality adjustment, socio-economic status and academic achievement. He found the correlations between predictor variables and criterion measure to be significant, personality was found to be the most important and intelligence the least important in predicting success in teaching.
Patted (1972) attempted to predict performance of teachers in teaching on the basis of scholastic aptitude, attitude towards teaching profession and introversion - extroversion measures. The result of the study showed significantly positive relationship between the criterion and each of three predictors. Sales and Hosek (1976) it is primarily the work of Kanungo, (1979) which has provided a present sense of direction and understanding and attempts to remove some of the conceptual confusion and ambiguity of the restricted Professional involvement to the cognitive dimension of attitudes towards a job. Accordingly, Professional involvement should be viewed as a generalized cognitive style of psychological identification with the job. Involvement in a job is primarily a function of how much the job can satisfy ones salient needs and hence in this respect, Professional involvement is more situationally determined. The result of other recent research studies also suggest that Professional involvement differs from other related constructs such as intrinsic motivation, professional satisfaction, and organization commitment

Rabinowitz and Hall (1977) in their review of the literature on Professional involvement, found several studies, for example, where individual characteristics such as age, education, sex, tenure, need strength, level of control and values were linked to Professional involvement, although these linkages were not very consistent across studies. Similarly, they described other studies in which professional involvement was related to situational variables in the work environment such as leader behavior, decision making processes, interpersonal relations and professional characteristics as well as with work outcomes such as professional satisfaction, turnover and absenteeism. Furthermore, they suggested that individual difference and professional characteristic variables were equally in portent in determining professional involvement
Saal, (1978) in a study of manufacturing employees, found that perceived professional characteristics were a better predictor of Professional involvement than individual difference variables. This conclusion has received further support from Koop (1986), and in a recent study by Elloy, Everett and Flynn (1991). The authors found that situational characteristics, as well as outcome variables each displayed comparable amounts of common variance with professional involvement and considerably more than personal characteristics.

Swarnjit Kaur (1981) conducted a study of adjustment, teaching attitude and interest, patterns of secondary school teachers (N=200). Teaching attitude Inventory was used to measure teaching attitude. The finding of the study reveals that occupational adjustment is related to the total attitude scores and home adjustment is a correlate of teaching success.

Research studies Sekaran and Mowday (1981) Sekaran (1989) over the past two decades, which have explored the construct of Professional involvement, have approached it from two different perspectives first, when viewed as an individual variable, professional involvement is believed to occur when the possession of certain needs, values or personal characteristics predispose individuals to become more or less involved in their jobs. The second perspective views Professional involvement, as a response to specific work situation characteristics. In other words, certain types of jobs or characteristics of the work situation influence the degree to which an individual become involved in their job.

Kenning (1982) constructed valid instruments of Professional involvement and situational and work outcome variables. The purpose of this study was to examine the relationship between Professional involvement and certain individual, situational and work outcome variables. Continuing efforts to investigate the correlates of Professional involvement on a variety of
organizational setting contributes to a theoretical synthesis of the construct and definitional clarity. Hence, the results of this and similar studies would be to identify and more accurately assess the impact of variables that can be used as predictors of Professional involvement. Such information should, in turn, be of considerable value in explaining variations in the level of professional involvement, both within and between organizations.

Alloy, Everest and Flynn (1991) has made an attempt to study an examination of the correlates of Professional involvement. This study establishes a mapping of job related and work related attitude scales, which have been used in published studies of Professional involvement. The analysis is based on data collected from 387 employees of a non union ore processing plant. The scale have been mapped in two dimensions, using a monotonic multidimensional scaling of the map indicate that professional characteristics including variety, autonomy, task identity and feedback, play an important role in facilitating involvement in one’s job. The results also suggest that supervisors who are seen as trusting, innovative, fair and cohesive and who positively reinforce subordinates for a job well done also play a role in developing a climate that fosters involvement.


Miller, Robert and Federick (2001) concluded study on factors associated with workers inclination to participate in employee involvement
programme. The study revealed that employees who are interested in participating in work-related groups/organizations were younger, more interested in professional advancement, more optimistic about program benefits than those who are uninterested.

Mukthamath and Khadi (2002) concluded study of factors influencing Professional -Involvement and professional satisfaction among woman teachers. Result showed that family responsibility and attitude towards teaching were the most influential factors for Professional -involvement and satisfaction. Family responsibility and professional involvement were inversely related.

Levine and Dannefer (2004) conducted a study on working class woman: The relationship professional characteristics and professional involvement to psychological well being in employed mother. The purpose of the study was to investigate the work experience of working class mothers in order to examine more carefully how occupational conditions, specifically professional characteristics, relate to Professional involvement and to psychological well being as defined by perceived professional competence and instrumentally: The major findings of the study were (i) A limited relationship was found between professional characteristics and the two dimensions of Professional -involvement. (ii) Significant correlation was found between five of the professional characteristics and perceived professional competence.

A different perception on autonomy comes from Pearson and Moomaw (2005). According to them, autonomy does always play a role to some extent, for every teacher. This does not always have to be autonomy when it comes to school management, but can also be simply autonomy in the classroom. They state that autonomy is 'a common link that appears when examining teacher motivation, professional satisfaction, stress (burnout),
professionalism, and empowerment'. They see autonomy as a key variable when examining educational reform initiatives, and that granting autonomy and empowering teachers could be a way to begin solving the problems of today's schools. They furthermore state that the degree of autonomy satisfaction. One of the main conclusions important for this research, is that teacher motivation and autonomy are related to both professional satisfaction and job stress; and the more intrinsically motivated the more satisfied the teachers were in their jobs and the less stress they experienced.

Ahmad. Q. (2005) conducted study on determinants of Professional-involvement among teachers. The major objective of the study was (i) examining the relationship between value orientation and Professional-involvement. (ii) Studying the relationship of background factors such as length of services, family size etc. with professional involvement. (iii) investigating, if professional involvement and one’s satisfaction with the institution where, one worked were significantly correlated. (iv) finding out the relationship between Professional-involvement and professional characteristics. (v) measuring whether there was any difference between teachers belonging to constituent colleges and affiliated colleges on Professional-involvement. (vi) investigating the relationship between Professional-involvement and professional satisfaction.

Cetin (2006) carried a research to investigate the significant difference between professional satisfaction, occupational and organizational commitment of 132 academics related to their gender, marital status, age, and experience, found a significant difference. Coben (2007) examined the relationship between commitment forms (organizational commitment, occupational commitment, Professional involvement, work involvement, and group commitment) and cultural values (individualism versus collectivism, power distance, uncertainty avoidance, and masculinity versus femininity). Five groups of Israeli teachers who are assumed to represent different cultural
groups (Secular Jews, orthodox Jews, Kibbutz teachers, Druze and Arabs) were examined and the analysis of data showed a strong effect of culture on multiple commitments.

2.5 Related Studies on Creativity

Many researches have been conducted in the last few decades in the field of creativity. Spearman (1930) enunciates three qualitative and five quantitative principles underlying the creative mind. (1) person tends to know his sensations, feelings and strivings. (2) When two or more percepts are given, the individual perceives them in various ways as related, as near, after, cause or past of the other (3) on the principle or correlates, when any item and a relation to it, are present to the mind then the mind can generate itself another item so related.

In fact, these researches began in 1950 when J.P. Guilford (1950) delivered presidential address in the American Psychology Committee. He clarified by the step analysis technique that the abilities used in creative thinking are clearly different from the ones used in intellectual thinking. According to him, a person possessed with intellectual abilities undertakes one-directional or convergent thinking, while a person with creative abilities undertakes original and new expression or divergent thinking on the basis of available information. Guilford attempted the first systematic study of dimensionality of creative thinking which was outgrowth of Spearman’s (1904) concept of general intelligence. Ripple and May (1962) Ward (1967), Haddon and Lytton (1968) showed definite distinctions between creativity and intelligence, Hargreaves and Bolton (1972) suggested that creativity and intelligence become unidentifiable as separate ways of thinking above a certain level of intelligence.

Getzel and Jackson (1962) attempted to know the relation between tests of IQ and creativity. Some students of the Chicago University were
divided into two groups. In one group were kept the students with high creativity but low IQ; and in the other were students with high IQ but low creativity. These students were tested in school achievement and personality characteristics. The conclusion drawn was that the group with high IQ, whose average IQ was 132, were not found to be better than the other group in the test of school achievement. Torrance brought an amazing conclusion that sports and humor are the necessary qualities of a creative person. Possibly, the IQ above 120 has not any significant relation with school achievement.

Torrance Mayors (1970) carried out 142 experimental studies in 1972 which were based on creativity in school environment. Various teaching methods such as creative, problem solving, synthesis, brain storming, etc., proved very successful. Though no final plan has been made in the field of creative thinking, several models have been found to be useful for creative teaching; such as Torrance (1970) Williams (1972) there is much to do in the field of creative teaching. What should be the order of various abilities in teaching of creative thinking—is still a remote point and is yet undecided.

It has become clear from the works of Kelvin Taylor (1971) Donald Ma Demon (1961) and Torrance (1972 and 74) that there is positive co-relation between creative activities and creative achievements of the real world. It was thirty years ago that there have been found individual differences and specific qualities in the children at birth which have been found to be related to creative thinking, such as environmental response or curiosity, etc., but the truth remains that these individual differences are not so significant as is of the behavior toward them. The researches of Pezzulo, Thorsen Madaus (1972) prove that there is no influence of difference of heredity on the tests of creative thinking.

Mihaly Csikszentmihulyi (1996) wrote that the creative process normally takes five steps
- **Preparation** - becoming immersed in problematic issues that are interesting and arouses curiosity.

- **Incubation** - ideas churn around below the threshold of consciousness.

- **Insight** - the "Aha!" moment when the puzzle starts to fall together.

- **Evaluation** - deciding if the insight is valuable and worth pursuing.

- **Elaboration** - translating the insight into its final work.

The last, elaboration, is what Edison meant when he said that creativity consists of 1% inspiration and 99% perspiration.

**Fleith (2000)** determined that, ‘in a climate in which fear, one right answer, little acceptance for a variety of students products, extreme levels of competition, and many extrinsic rewards are predominant, it is difficult to foster high levels of creativity.' The true reward students should receive for being creative is purely intrinsic. In order to avoid a competitive and extrinsically rewarding classroom, the teacher needs to provide a friendly and comfortable environment that students can feel comfortable enough to voice their opinions and explore new ideas. One way to get comfortable enough to voice their to do this is for teachers to model creativity and show their own interests.

The term “brainstorming” was originated in the advertising world by **Alex Osborn** in his seminal work, applies imagination. He postulated that creative ideas are trapped in our minds because of the tear of rejection. Thus, creativity is encouraged by not allowing ideas to be evaluated or discussed until after the brainstorming session has run dry. In this fashion, all ideas are considered legitimate; in addition, the most far-fetched ideas are often the most fertile. Brainstorming allows, taps the human brain's capacity for lateral thinking and free association. **Osborn** applied four basic conditions
- Criticism is ruled out. Judgment of ideas is withheld until after the session.

- "Free wheeling" is welcomed. The crazier the idea, the better as it is easier to tame-down than to think-up.

- Quantity is wanted. The greater the number of ideas, the more the likelihood that useful one will be generated.

- Combination and improvement are sought. Suggestion of how ideas of others can be turned into better ideas or how two or more ideas can be joined. “When we realize that our true self is one of pure potentiality, we align with the power that manifests everything in the universe.”

Over the years, investigations into the mystery of the creative process have led to scores of books by psychologists and philosophers, but there continues to be disagreement of what, after all, is a quality that everyone would like to possess but which is not easy to pin down. Almost everyone agrees, however, that creativity occurs in a mind that is quiet, relaxed and silent. It often occurs during sleep. Both Mary Shelley and Robert Louis Stevenson woke suddenly in the middle of the night and wrote down their dreams, which later became well known stories. Einstein said he got his best ideas while shaving and Archimedes was in a bath when he found the answer he was looking for. Almost all persons presently agree that creative thinking is possible by teaching. It is also definite that the abilities which are helpful in creative thinking can be developed by education and the school environment can be changed in a planned manner so as to encourage creativity.

Teachers that want to encourage creativity in the classroom should make sure they are giving their students a lot of choice and different options when it comes to assignments and projects. Denise De Sonza Fleith (2000) found in her research that teachers encourage creativity by, 'at imposing too
many assignments and rules on students, giving students choice, providing students opportunities to become aware of their creativity, and it is the teachers difficult task to provide opportunities for students to develop their own creative thinking.

Studies of Nwosu, Johnson (2004) have shown that most science teachers do not possess the prerequisite knowledge needed for activity based learning and as a result the most prevalent method of teaching has been the ‘talk and chalk’ (lecture) method. Buttressing this Ezeliora (2004) pointed that most of the time science is taught to the learners using the descriptive or lecture method instead of hands-on approach. The possible ineffectiveness of this approach is strongly supported by persistent poor performance of candidates in public examinations Ogbeba (2009)

Ibe and Nwosu (2003) Mander (2002) Offorma (1984) listed some of the creative methods as demonstration skills, lecture, diagnosis, direct observation, fieldtrip, group work, laboratory activates, reading, manipulation, modeling, seminar and programmed instruction. Computer Aided Instruction (CAI). Many things happen to the student with learning difficulties when the difficulties remain unsolved. The effect of difficulties in learning upon a student may not be far-out of proportion to the apparent seriousness of the problem, because emotional pressure builds up around the student’s area of weakness BLAIR (1988) The student may fall behind expectation or standards set by the teachers, parents and school administrators and this lends support to the need to address the difficulty issue through the use of innovative teaching strategies.

Long John (2009) Ogbeba (2009) Umoren and Ogong (2007) A teaching strategy refers simply to an approach, method or a combination of carefully designed classroom interactions that could be followed meticulously to teach atomic, concept or an idea. This brings us to the issue of having numerous teaching strategies or methods.
**Anchor (2008)** considered some teaching modes as learner centered, interest arousing and activity oriented. They include conceptual change strategy, concept mapping, field / excursion, guilder discovery, experimental/laboratory and demon-stration methods. He added that most are regarded as modes of instruction (teaching strategies) as the teachers are required to employ a number of them while teaching. According to **Ukoha (2008)** the concept of utilization pre-supposes that appropriate instructional materials have not been identified, provided and selected for instruction. This statement applies in like manner to utilization with respect to teaching strategies. It may be appropriate to consider a shift from top-down behaviorist approaches to more participatory learner centered approaches.

### 2.6 Conclusion

This section attempts a summary review of the studies done in the Chapter, studies available in India, laying emphasis on the need to tap the creative energy and talent of the teachers and the importance of the conducive atmosphere needed in the schools and the surroundings in order that the teacher gets motivated to sacrifice herself to the profession of her choice with commitment in order to get fulfillment and joy. Teachers’

Educational innovation and creativity can be ignited, protected and nurtured so that they may in turn stimulate the students to creative learning.

This Chapter delineates the ideas of the authors in regard to essential conditions for Teacher innovativeness namely, professional satisfaction, Professional Involvement, Organizational Climate and Creativity, reading through some of the material available. The ideas of various authors both foreign and Indian shed light on the main variables and sub variables such as service , commitment, interest, motivation and sense of sacrifice. Studies reveal the fact that innovativeness of the teachers vary according to their gender, type of the management they work in, educational qualification , age and experience in their profession.