CHAPTER III

REVIEW OF RELATED LITERATURE

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CHAPTER III

REVIEW OF RELATED LITERATURE

One of the most important early steps in a research project is the conduction of the literature review. This is also one of the most humbling experiences one is likely to have. This chapter usually presents the review of the literature related to the study and the implications drawn for the present study. The implications should match with the details of the actual study present in the next chapter research design.

Every piece of ongoing research needs to be connected with the work already done, to attain an overall relevance and purpose. The review of literature becomes a link between the research proposed and the studies.

Review of related literature states the status of knowledge on the topic and identifies gaps in it. Purpose of the review of related literature is to find out how much research has been done on the same area and it justify the need for more studies on the topic, fill in easiest gaps, clarify in consistencies, sustainable existing facts with procedure and processes and get new ideas and approaches.

3.1 Studies on Teacher Accountability

True Teacher Accountability by Johnson (2012, 13), our government has got it backwards. Instead of investing billions of dollars to
eliminate poor teachers who have already been hired, we need to focus on preventing those teachers who don’t have what it takes from being hired in the first place—and making sure those who have the right stuff receive the excellent training and support they deserve.

Although many teacher-training programs have improved recently, most still accept any registered student who applies. This is termed “open enrollment” because it sounds democratic and American, and it brings in a lot of tuition dollars. Teacher training is a lucrative business. According to a 2007 report from the National Commission on Teaching and America’s Future, the United States spends $7.2 billion annually to replace new teachers who quit. Unfortunately, our schools of higher education didn’t receive the bailout that many commercial corporations did, so state-supported universities and colleges literally cannot afford to turn away students.

“Teacher Accountability Measures Become Law in Illinois” by Fehlen (2011) in what is being hailed as historic education reform, Illinois legislation passed last month dictates that teacher effectiveness and expertise, not seniority, will be most important in schools' decisions about tenure and layoffs. The new law has been widely praised and advocates have suggested that it represents a model for nationwide education reform.

According to David (2010) ‘Teacher Accountability,’ Teachers are held to an increased accountability standard under NCLBA. The act
prohibits teaching with a temporary, provisional, or emergency teaching certificate. However, under the law, states are encouraged to find ways of alternative certification to allow talented individuals to teach subjects they know. The teacher accountability requirement under the federal law requires teachers in core academic subjects to be "highly qualified." Core subjects are English, reading or language arts, mathematics, science, foreign languages, civics and government, economics, arts, history and geography. Highly qualified means teachers must have full certification, a bachelor's degree and demonstrated competence in subject knowledge and teaching.

Teacher accountability by Francis (2010), A Philosophical View

Whether they work in private or public schools, teachers are employees paid a salary for doing a particular job - teaching fourth grade or high school physics. No one denies that teachers ought to be answerable for what they do, but what does that mean? On the most basic level it means that teachers may be asked - and ought to be able - to explain and defend a particular action, e.g., sending a student out of the room, assigning a controversial text, permitting students to work together in teams. Of course, certain kinds of answers - such as "I just felt like it" or "That's how we've always done it" - are insufficient. Some rationale must connect an action to some putative educational benefit.

According to Dane (2010), getting ahead of the teacher-accountability curve; among the issues in contract negotiations between
Seattle Public Schools and its teachers union is a plan to include improvements in student growth as part of teacher evaluations. Guest columnist Dan supports the idea of using value-added methods as one means of judging teacher performance, but notes the importance of careful planning and implementation.

According to the Programmed of Action (1986, p. 185) “teachers are accountable to the pupils, their parents, their community and to their profession”. Programmed of action has enunciated (p. 25) that a system of teachers evaluation open, participate and the data based would be created. Norms of accountability would be laid down with incentives for good performance and disincentives for non-performance. Unfortunately nothing has been done so far because we believe in talking big and doing precious little to translate our ideas into action.

In beyond Freedom and Dignity, Skinner (1938) stresses that concepts such as responsibility, personal autonomy and freedom of choice are nothing more than vacuous notions left over from ages of pre-scientific thinking. The implications of the fore going for a theory of accountability are clear. How can we hold people accountable for what they do when all of their actions really are not of their choosing, but instead derive from control mechanisms completely external to themselves? In Skinner’s view behavior can be changed and altered for the better. The second challenge to our analysis of accountability involves two other conclusions from operant
conditioning research; both establish a basis for changing behavior and provide the underlying rationale for behavior modification strategies.

The implications of this theory for a concept of accountability are serious to say the least, but if its basic percepts are accepted as an adequate explanation for behavior, the implications go far beyond accountability, clearly undermining basic assumptions and principles which define the purpose and structure of many social institutions. As Gaylin observed, Skinner rejects most it not all major assumptions associated with law, religion, anthropology, psychotherapy, psychology, philosophy, ethics, education, political science and history on the grounds that these fields are un scientific in their view of human behavior and consequently in error regarding the theoretical formulations in which they are based.

Teachers need professional development in order to develop the understanding that leads to commitment. Only through teachers’ commitment will class room realities change for our students. Principals and local district officials must create expectations for continuous improvement on the part of teachers. Expectations for teacher’s growth should center on the evidence that teachers provide concerning their own learning with respect to high standards and the impact that this learning has had on their students.

Teacher’s should be accountable for grounding professional practices in the best available research, for maintaining a modern vision of
what constitutes important mathematics for providing students with engaging and relevant lesson and equitable opportunities to learn. This type of accountability must focus on individual responsiveness and interpersonal dynamics within specific contexts. It must be local in implementation and of high resolution in the light it sheds on teacher’s practice and students learning.

Baldwin and Brann (1997) explains with the increasing emphasis by legislators on accountability in higher education, the economic contributions of higher education to the local, regional and state economics tend to be over looked. This study provides estimates of both the gross and net imparts of Miami-Dade Community College (MDCC) on the local Dade country’s economy. All categories of expenditures are included and data are for the fiscal year 1994-95. The results of this study are intended inform planning and decision making. Some findings include(1)The total gross country expenditure were $360.6 million (2) output of additional goods and services was $367.6 million (3) added income earned by local households was $257.7 million and (4) total jobs created were 14205. Tables of data are provided on gross and net imparts personnel costs, current expenses, capital outlay, plant fund operations, enrollment, graduates and leavers, transfers and sources of revenue. Appended are gross and net county expenditures by the college and employees by students and visitors and by graduates and a glossary.
Merrifield and Juliet (1998) explained, in the current environment of global economic restructuring changes in work and employment and large scale immigration to the United States Adult Basic Education (ABE) is facing demands that it be accountable for its performance by demonstrating its success in terms of student and societal outcomes. The increasing calls for ABE to develop a system of performance accountability system from the following factors and problems regarding what it means to be new literature is changing, the purpose of literacy remains undefined. ABE’s many stakeholders are not mutually accountable, ABE is struggling to create a national accountability system without a national service delivery system and existing tools for measuring learning are not up to the task. Thanks to several new initiatives for addressing performance the problems of accountability in ABE are beginning to be addressed at the state and national levels. The following principles have been proposed as a framework for action that will enable ABE to perform effectively and be held accountable for future performance. (1) agree on performance (2) build mutual accountability relationships (3) develop capacity to perform and be accountable and (4) create new tools to measure performance.

Luhm, and Corcoran et al. (1998) report explores issues related to accountability in the context of children. Achieving, the school reform effort of Philadelphia (Pennsylvania). The accountability system begins with Content standards in English or language arts, mathematics, Science
and the arts. The standard – 9 Achievement Test has been designated to assess how students are progressing under the new reforms. A Professional Responsibility Index has been developed to provide each school with a performance target that reflects expected improvements. Another aspect of the accountability system is the Key stone Schools program, which allows the Superintendent to reconstitute any school deemed academically distressed and then reopen it under strict supervision. Teacher observation forms and promotion and graduation requirements are other aspects of the accountability system.

Bechtel and David (1998) explained their study examines restructuring from principals perspectives. It explores restructuring as a “deal” between a district and individual schools, where in the school receives greater autonomy over budgets, personnel and school policies, in return for stricter accountability for results, usually defined in terms of students achievement. The study tried to determine whether this conception of restructuring, based on the literature and district policies, matches principals own perceptions. Two rounds of interviews were conducted with 12 high school principals in an urban mid-western district implementing school based management and enhanced accountability system.

The semi-annual report to Congress summarizes the activities of the Department of Education’s Office of Inspector General (OIG) for the 6-month period ending September 33, 1997 (U.S.A). The OIG gave
congressional testimony regarding the modernization of student financial assistance information programs, the Loan Consolidation process, the Federal Direct student Loan programme and the Eisenhower Mathematics and Science education programme with regard to post secondary education, the OIG conducted audits of student financial assistance programme, investigated athletic scholarship fraud, and prosecuted students who fraudulently claimed enrollment in foreign schools. The report also describes department operations and audit quality initiative for the period and makes legislative proposals for re authorization of the 1998 Higher Education act. Reporting requirements, statistical summaries and a glossary are included.

The studies related to the teacher accountability emphases the standard, assessments, community involvement, teacher development and nation’s responsibility. Accountability is the demands for greater acceptability in education and proposals that accompany they are after directed at teachers.

3.2 Studies on Reflective Teaching

Axelson (2013) explains in “teacher for the 21st century; using evaluation to improve teaching” the self-evaluation to be valuable for teachers and for the profession, it is essential that teachers be able to have confidence in their self-evaluations and for those self-evaluations to be conducted in private.
Department of Management Studies, University of Malakand (2013) studied, reflective is the essence of quality teaching and learning, reflective teacher understand the issues of education and are better able to help this students. The purpose of the studies was to investigate the perception of teacher regarding the role of reflective practice in improving teaching classroom teaching skills.

Andrew (2010) also divided in his book Reflective Teaching into three contents or part. They are Part I-Becoming a reflective teacher Reflective teaching Learning through mentoring in initial teacher education developing evidence informed class room Part II-Being reflective teacher Social contexts. What is and what might be? Values and identity, who are we? “Relationships, learning, planning & organization” Part III-Beyond classroom Reflection, answerable for what they do, but what does that mean? On the most basic level it means that teachers may be asked and ought to be able –to explain and defend a particular action, e.g.; sending a student out of the room, assigning a controversial text, permitting students to work together in teams. Of course, certain kinds of answers –such as “I just felt like it” or “that’s how we’ve always done it” are insufficient. Some rational must connect an action to some putative educational benefit.

Balz and, Jolanda et al studied, “The challenge of involvement in reflective teaching” (2009). The purpose of this qualitative study was to learn more about how teachers deal with a reflective teaching approach
aimed at developing their competencies in analysing and facilitating classroom discussions on socio-scientific issues. Three cases of teachers' journeys through the project are reconstructed and characterized. We posit that each teacher benefited from the project according to his or her individual situation, needs and learning style. A number of modifications to the project design are proposed and can be summarized by the idea of assisting teachers more closely and more individually as they pass through the reflective teaching process.

Mohammad (2007), Reflection has been very fashionable in all parts of teacher education for a number of years. Despite numerous articles, there is little empirical evidence that supports the view that it results in superior teaching practices, especially in EFL context. The objective of the present study was to explore whether there is a statistically meaningful relationship between the "reflective teaching practices" and the "learning outcomes" of the Iranian EFL students. For the purpose of this study two homogeneous groups of pre-university students were taught the same materials under similar pedagogical conditions by two teachers fundamentally different in their treatment of reflection on teaching practices. In fact, one was a strong supporter of the reflective pedagogy, and the other a total disbeliever in its use and effect on students' learning potential. The students mean score was significantly lower (p<0.05) in the disbeliever teacher category (control group) than the mean score of students
in the believer teacher category (experimental group). Also, the student satisfaction and support were more significant in the experimental group. All in all, reflective pedagogy contributed significantly to the learning/learner effectiveness. These results demonstrate for the first time the potential contribution of reflection and reflective teaching to the ease and effectiveness of learning on the part of the Iranian EFL students.

Arnold (2006) explained Small-group teaching is particularly suited for complex skills such as communication. Existing work has identified the basic elements of small-group teaching, but few descriptions of higher-order teaching practices exist in the medical literature. Thus the authors developed an empirically driven and theoretically grounded model for small-group communication-skills teaching. Between 2002 and 2005, teaching observations were collected over 100 hours of direct contact time between four expert facilitators and 120 medical oncology fellows participating in Oncotalk, a semi annual, four-day retreat focused on end-of-life communication skills. The authors conducted small-group teaching observations, semi structured interviews with faculty participants, video or audio recording with transcript review, and evaluation of results by faculty participants. Teaching skills observed during the retreats included a linked set of reflective, process-oriented teaching practices: identifying a learning edge, proposing and testing hypotheses, and calibrating learner self-assessments. Based on observations and debriefings with facilitators, the
authors developed a conceptual model of teaching that illustrates an iterative loop of teaching practices aimed at enhancing learners' engagement and self-efficacy. Through longitudinal, empirical observations, this project identified a set of specific teaching skills for small-group settings with applicability to other clinical teaching settings. This study extends current theory and teaching practice prescriptions by describing specific teaching practices required for effective teaching. These reflective teaching practices, while developed for communication skills training, may be useful for teaching other challenging topics such as ethics and professionalism.

Afonso (2001) studied the understanding of student teacher’s reflections of the teaching and learning of English as a Foreign Language through their analysis of computer–generated materials.


Bannink, & Jet et al.(2007) report on a “reflective practicum” at the very beginning of a pre-service teacher education course that interconnects prior beliefs, reflection—in action and reflection—on action and that, in principle, models a complete reflection cycle. Peer—teaching activities zoom in on the extent to which prior ideas about good teaching may be shared: rooted in cultural metaphors that can be made more analytically transparent. Triangulation and peer scaffolding across institutional roles yield an emerging awareness that convention for doing interaction are
sensitive to local conditions that can be systematically explored. The students reframe and refine their initial ideas about good teaching in terms of questions about practices in authentic classroom situations, thus creating a bridge between theory and practice. They conclude that detailed observation and more sophisticated analytical tools are needed to trace how learning and reflection are discursively constructed in the moment-by-moment shifting participation formats of institutional interactions.

3.3. Studies on Strength, Weakness, Opportunities and Threats (SWOT) Analysis

Kamla Raj (2013) presented a paper, it includes a SWOT Analysis of the rise and pedagogical implement of the social constructivist epistemology is educational constructivism is a term that should be used with caution because of its multifarious nature. It is widely used in many disciplines with very different meaning.

According to Sharon (2010) explained: One of the most useful skills developed in management and required during study is assessment and analysis. Both steps are usually applied while company’s managers are trying to find future strategies, determine future tasks and objectives and correct/advance the tasks implemented before. The best way to provide sufficient and clear analysis is SWOT analysis. SWOT was introduced in management study in order to teach managers to provide quick and effective assessment of company’s recent strategy and activities. SWOT
analysis includes four points which can clearly show the present statement. They are: strengths, weaknesses, opportunities and threats. All of the three points may be defined by one manager but it would be better if SWOT analysis did involve as many employees as possible. From business viewpoint study process can also be seen as a company strategy which is aimed to achieve definite goals by implementing determined tasks and objectives.

Tracy (2010) explained SWOT Analysis; corporate intranets are an essential part of organizational management strategies. They are important to client service, information and knowledge management, internal communications, cost and change management, employee retention and career development. Successful intranets support business, administrative and compliance processes. Great intranets do so in a simple, straightforward, engaging manner that both employees and senior management understand and trust. Real-world intranet teams are meeting the challenge and delivering value to their companies and their employees. They do so by continually evaluating where they are against their own objectives, as well as other intranet best practices. This article facilitates this ongoing process by presenting a composite of best practices, summarizing trends and shared challenges in a broad variety of in-service intranets.

Marilyn and Judy (2010) studied the SWOT Analysis, The purpose of this study is to examine the use of the strategic management tool,
Strengths-Weaknesses-Opportunities-Threats or SWOT analysis, and to assess how the methodology has been used as well as changes to the methodology. The findings both for and against SWOT analysis should lead to a balanced view of the technique as well as yield ideas for needed theory building.

The use of SWOT analysis continues to permeate the academic peer-reviewed literature. Research supports SWOT analysis as a tool for planning purposes. Over the past decade, SWOT research has focused on analyzing organizations for recommended strategic actions. As a methodology for strategic positioning, SWOT analysis has been extended beyond companies to countries and industries and is used in virtually every published business case positioned for business student analysis. Additional use of SWOT is as teaching tools by consultants, trainers and educators.

Admin Services (2010), SWOT analysis provides a structure for analyzing either your own strengths and weaknesses, and the opportunities and threats you face, or in a work context for analyzing the strengths, weaknesses, opportunities and threats a business or event faces. Ideally it is one step in a process which helps you to. appreciate the strengths of a situation, and you may then decide to build on these; define the weaknesses, which you might choose to minimize; make the most of the opportunities that present themselves, and recognize the possible threats and treat them in a planned and organized way. SWOT analyses are not ends in themselves.
but a step before some action planning. SWOT analyses usually benefit from discussion, get other people’s perspectives. Remember to be realistic and focused on what really happens.

How to perform a SWOT analysis by Tim (2009), The SWOT analysis is a valuable step in your situational analysis. Assessing your firm’s strengths, weaknesses, market opportunities, and threats through a SWOT analysis is a very simple process that can offer powerful insight into the potential and critical issues affecting a venture. The SWOT analysis begins by conducting an inventory of internal strengths and weaknesses in your organization. You will then note the external opportunities and threats that may affect the organization, based on your market and the overall environment. Don’t be concerned about elaborating on these topics at this stage; bullet points may be the best way to begin. Capture the factors you believe are relevant in each of the four areas. You will want to review what you have noted here as you work through your marketing plan. The primary purpose of the SWOT analysis is to identify and assign each significant factor, positive and negative, to one of the four categories, allowing you to take an objective look at your business. The SWOT analysis will be a useful tool in developing and confirming your goals and your marketing strategy.

3.4. Studies on Substitute, Combine, Adapt, Modify, Put to other uses, Eliminate and Rearrange (SCAMPER) Technique

The Substitute, Combine, Adapt, Modify, Put to other uses, Eliminate and Rearrange (SCAMPER) Technique for creative teaching and
innovative and SCAMPER is a technique that can be used to trigger creativity and assist teachers in overcoming any challenges that may be faced in implementing learning each student. SCAMPER is based on the idea that everything new is a modification of something that already exists.

Mark (2009) explained, the SCAMPER brainstorming technique uses a set of directed questions to resolve a problem (or meet an opportunity). It can also turn a tired idea into something new and different. A problem is situation, condition, or issue that remains unresolved and makes it difficult to accomplish a desired objective. A problem is perceived when an individual, group, or organization becomes aware of a significant difference between what is desired and what actually is. Trying to find a solution to a problem is known as problem solving. Problem solving is the process by which a situation is analyzed, a workable solution is determined, and corrective actions taken.

Using SCAMPER for Business Brainstorming by Heidi (2009) explained, as a business owner or leader you will often have the need to come up with ideas on your own or in conjunction with people you rely on. You can boost your brainstorming power by using a tool such as SCAMPER as a brainstorming framework.

The SCAMPER technique, created by Eberle and written about by Michael (2010), in his excellent book, will assist you in thinking of changes you can make to an existing product to create a new one via a checklist.
To use the SCAMPER technique, first state the problem you’d like to solve or the idea you’d like to develop. It can be anything: a challenge in your personal life or business; or maybe a product, service or process you want to improve. After pinpointing the challenge, it’s then a matter of asking questions about it using the SCAMPER checklist to guide you.

Check lists any forms or suggestions that stimulate idealism have been found to be invaluable in the foundation of creative ideas. Thus the scamper technique draws quote heavily on a list of idea spurring questions developed by the late Osborn (2006) founder of the creative educational foundation.

The title of this book is an acronym that serves to describe the mental activity the games of the books are intended to bring about. Each of the seven letters in Scampers is the initial letter for the word phrase making up the check list used to create the experts. (1)Thinking and feeling processes. (2) Should not everybody scamper? SCAMPER technique (3) how to scamper (4) direction for playing scamper games and (5) scamper games contains appendices and 30 references (E.H.)

Describes the nature and importance of creativity in family counseling and factors such as divergent thinking that are a part of the creative process. Introduces the SCAMPER model of creativity as a practical way of helping clinicians short cut the lengthy procedures involved in being creative as
well remembering aspects essential in working creatively with families (contains 20 references).

3.5. Studies on Brain Based Learning

Willis (2013) explained the classroom and observation of students learned, the connections between two professions became clear. “I began to write about brain-based teaching strategies. It took a few years, though, before I realized that my students could also understand how their brains learn. If we want to empower students, we must show them how they can control their own cognitive and emotional health and their own learning. Teaching students how the brain operates is a huge step. Even young students can learn strategies for priming their brains to learn more efficiently; I know, because I’ve taught both 5th graders and 7th graders about how their brains learn”.

Brain-based learning has hatched a new discipline now entitled by some as educational neuroscience, or by others as mind, brain, and education science (Sousa, 2011). Whatever we call this "not really new discipline," it is a comprehensive approach to instruction using current research from neuroscience. Brain-based education (aka educational neuroscience) emphasizes how the brain learns naturally and is based on what we currently know about the actual structure and function of the human brain at varying developmental stages. Using the latest neural research, educational techniques that are brain friendly provide a
biologically driven framework for creating effective instruction. This theory also helps to explain recurring learning behaviors, and is a meta-concept that includes an eclectic mix of techniques. Currently, related techniques stress allowing teachers to connect learning to students' real lives and emotional experiences, as well as their personal histories and experiences.

In the study that was done in Seattle, Washington by Gilbert (2009), 3rd grades studies language arts through dance activities. The students involved in dance increased their reading scores by 13% in six months. Research suggests that the relationship between learning and movement continues throughout life.

Norman & Schmidt (2008) completed a follow up studies on BBL they revealed that there is better long term knowledge retention for BBL students. The apparent improvement in retention may be connected to the way learning occurs in BBL.

Papinczak (2008), ‘Are Deep Strategic Learners Better Studies to Brain Based Learning’. The aim of the study was to determine if medical students categorized as deep and strategic approach to their Brain Based Learning enjoyable and supportive of their learning and achieve well in the first year medical students (213). All students completed the “Medical Course Learning Questionnaire” at the commencement and completion of their first year of medical studies. Qualitative data were collected. The
result shows that the deep and strategic learners will always be considerable; this analysis has enabled classification of a student group that may be likely to find Brain Based Learning problematic.

Slavkin (2006) conducted study on Brain Based Learning and traditional method. The aim of the study was to investigate should brain based teaching replace Traditional method. The methods used in the study are interviews with teachers, online sources and library resources. Current brain research has lead to the realization that the brain capacity to learn is not set at birth but rather than it is influenced by early experiences. Learning occurs through the growth of these neural connections which are stimulated by electrical currents that pass along nerve cells. Such brain connections develop very quickly during the first three years of child’s life. The more stimulation a child receives, the more significant the development of the brain and the greater the enhancement of the connections within the central nervous system, leading to a greater capacity to learn.

Wolfe (2004) made several recommendations to educators related to taking a proactive stance as consumers and users of insights from brain science. These recommendations are for educators to learn the general structures and functions of the brain, to gain some skills in assessing the validity of a study, to exercise caution and restraint when attempting to employ insights from research studies in a classroom.
Studies related to the brain Based Learning reveals the effectiveness of the brain based learning and students achievement and performance skills indifferent subjects and areas in educational field. Students felt the brain based learning with its active learning and team work made learning relevant and enjoyable.

3.6. Studies on Mind Mapping

Joeran and Gensmehr et al. (2011). Presented a paper; they introduced Docear an academic literature “suit”. Docear offers to scientist what an office suit like Microsoft office offers to office workers. Docear bundles several applications for scientists, academic search engines PDF readers, reference manager, word processes, mind mapping module and recommender system. Docear utilizes the power of mind maps for structuring information. Mind maps are well suited to structure documents well collection, the centre of documents respectively, annotations and references. They may also be used to draft documents because the structure of mind map is similar to an outline.

Beel and Bela et al. (2010). Presented a paper; they presented link analysis for mind map. LAMM is an approach for determining the relatedness of documents by applying methods from hyper link and citation analysis to mind maps. The basic idea is of two documents A&B are linked or referenced by a mind map. These articles are likely to be related. They
proposed that two documents are higher related when the proximity in mind map is higher.

Zip (2009) conducted a study on Mind Map. Mind Maps: Useful Schematic Tool for Organizing and Integrating Concepts of Complex Patient Care in the Clinic and Classroom. The purpose of this study was firstly to describe a teaching strategy “Mind Mapping Learning Technique (MMLT)”; secondly to provide an understanding of how the MMLT is used to promote critical thinking skills in graduate students; and finally, to assess students perceptions regarding the use of the mind mapping learning technique as tool to enable them to better organize, prioritize, and integrate

Thangarajathi (2008) studied the effectiveness of mind mapping technique in teaching Mathematics. The sample of the study comprised sixty IX standard students in Tuticorin district. Two equivalent groups pre-test –post –test experimental design was employed for this study. The study reveals that the mind mapping technique is more effective than the conventional method. The conventional method can make improvement in the achievement of the pupils to a certain extent. But when compared with the mind mapping technique the conventional method is not as much effective.

Mona & Khalik (2008) conducted a study on The Influence of Mind Mapping on Eight Graders’ Science Achievement”. The aim of this study was to investigate the changes in students understanding of Science
concepts when mind mapping is used as an instructional method and assessment technique. The study had a sample of sixty two students. The major findings of the study shows that mind mapping technique is much effective in learning Science concepts among Eighth grade students.

Buisine & Guillaume (2007) studied “Computer Supported Creativity: Evaluation of a Table Top Mind map application. The aim of this study was to investigate the usability and influences of interactive table top technologies to support group creativity. With twenty four users in a within group design, compared its use to traditional paper and pen mind mapping sessions. The results showed no difference in idea production; but the table top condition significantly improved both subjective and collaborative dimensions, especially by leading to better balanced contributions from the group members.

Antony & Zipp (2006) conducted a study on ‘Applications of the Mind map Learning technique in Chiropractic Education’. Fourteen third – year physical therapy students enrolled in a doctoral neuron habilitation course were required to create a mind map based upon the lecture presentation and assigned reading for six diagnose. The students were asked to complete a post- course survey to assess their perception of the usefulness of the mind map learning technique in improving organization and integration of course material. The results obtained from this limited educational experience offers some support for the use of mind map
learning technique in promoting course material integration and learning physical therapy education.

Davies (2002) conducted a study to determine the effectiveness of ‘Computer Based Mind Maps in the learning of Biology at the Higher secondary level; the investigator has adopted an experimental method for the study. The experimental study was conducted on sixty class XI students. Pre-test post-test parallel group design was adopted. The obtained data was analyzed using the statistical technique of analysis of Covariance. The study revealed that the computer based mind maps were found to be more effective than the routine teacher dominated lecture method for transacting Biology at Higher Secondary level. The study leads to the conclusion that mind mapping can be used to optimum advantage in the field of information and Communication technology engaged education.

Fong (2002) studied web –based mind learning system using mind mapping and mind scheduling. They adopted practical advice, methodologies and techniques to develop a web- based mind learning system. Mind scheduling provides the paradigm which offers a good way of time management in a semester. Mind mapping consist of a map title which holds the subject the map by filling in the thoughts the user may have about the subject, describing that thought in more detail. Findings reveals that course leaders, lectures, administrators and students can collaboratively use
this system anytime anywhere to supplement classroom learning for better coherence between students and lectures.

Kim & Hong (2002) studied the effect of using the mind map instruction in earth science. The purpose of this study was to prove how effective the science lesson is for high school students when it is done in using mind map. The subject consisted of two classes with second graders in K public high school in Kimhea. Experimental grouped was composed to use mind maps and the controlled group with homogeneity. Findings revealed that the science lesson using mind map is absolutely effective for the middle school students to improve their science process skills and learning attitude.

Kommers & Stoyanova (2001) examined the effect of concept mapping on science achievement of middle grade science students. The subjects were hundred and eighty two eighth grade students distributed into eight intact earths’ science classes by ability levels. The ability level variable also examined as a possible effect on student achievement. An objective test and six performance assessment items were conducted to measure achievement. For this group of students analysis indicated no significant overall effects of treatment.

Every piece of ongoing research needs to be connected with the work already done, to attain an overall relevance and purpose. The review of literature becomes a link between the research proposed and the studies.
As pointed out in the beginning of this chapter, the review of studies helped the investigator, thus supporting the investigator’s present attempt to conduct a study in the central theme in the content is amply rewarded. The investigator collected the related studies on Teacher accountability, Reflective Teaching, SCAMPER Technique, SWOT analysis, Brain Based learning, Mind Mapping.