CHAPTER II

REVIEW OF RELATED LITERATURE
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An interpretative review of literature is a critical review of related literature on a research problem. This chapter presents the review of related literature on the problem “Enhancing Communicative Competence: Effect of Meta Cognition and Mediated Learning Experience”.

A literature review is usually a critique of the status of knowledge on a carefully defined research topic. It enables a researcher to gain further insights from the purpose and the results of a study. It is obviously relevant to the problem, such as previous research investigating the same variables or a similar question, references to the theory and the empirical testing of the theory, and the studies of similar practices. A review of the literature serves several purposes in research. Knowledge from literature is used in stating the significance of the problem, developing the research design relating the results of the study to previous knowledge for suggesting further research. It enables a researcher to,

- Define and limit the problem
- Place the study in a historical and associational perspective.
- Avoid unintentional and unnecessary replication.
- Select promising methods and measures.
- Relate the findings to previous knowledge and suggest further research.
The review of literature can be seen as an end in itself to inform practice to provide a comprehensive understanding about what has already been done on a topic. It helps to improve our professional practice also. 

Cooper and Hedges (1994) define research review as 'a research syntheses attempt to integrate empirical research for the purpose of creating generalizations'.

The purpose of the literature review is to place the current research into the 'big picture' of what is known and not known about a specific topic. It establishes a historical perspective on the intended research, provides a vision of the need for additional research, and enables the researcher to develop a conceptual framework for the research. This framework allows the researcher to generate research questions and hypotheses to frame the design and to conduct of the research.

2.1. STEPS IN THE REVIEW OF LITERATURE

- Limiting the research topic.
- Reviewing secondary sources to get overview of the topic.
- Developing a search strategy.
- Conducting research and selecting titles.
- Obtaining sources/title.
- Reading and preparing bibliographic information and notes.
- Evaluating the research findings.
- Synthesizing the results.
- Using the synthesis to develop conceptual framework, research questions and methodology.
Review of Related Studies

Studies on Communicative Competence

Studies on Mediated Learning Experience

Studies on Meta Cognition

Analysis of the studies under various sub headings

Synthesis of the studies

Identification and analysis of methodologies, tools, statistical techniques, research gaps.

Evolution of Methodology

Identification of Research Gaps

Fig. 3

Process involved in Review of Related Studies
2.2. STUDIES ON COMMUNICATIVE COMPETENCE

The studies on Communicative Competence deal with its relation and relevance to

i) Professionals.

ii) Classroom Instruction.

iii) Learning Disabled.

iv) Components

v) Oral fluency.

vi) Non verbal communication.

vii) Cognitive Development.

viii) Technological devices.

xi) Teachers' Role

x) Language Acquisition and Cognitive Development

Under each of these subheadings related studies are reviewed.

2.2.1. Communicative Competence and Professionals.

McCain, Barbara, (1990) explored the Communicative Competence of 35 executive fundraisers. The study is experimental study and the sample consists of 35 participants. Interview and Self report were used as Tools. Results indicated that public speaking is identified as a tool of the industry. 90.37 % of the sample feels that effective public speaking is identical as their number one training need.

Hill, Kathy Louise (1990) studied the impact of Communicative Competence and the proficiency of the male and female professionals using
Factor Analysis. The findings indicated that there is no relationship between supervisors' perception of the males' and females' Communicative Competence. The prejudiced managers do not evaluate their subordinates differently from non prejudice managers. The purpose of the study is to determine whether there is a relationship between the male and female professionals and supervisors in terms of perceptions of the male or female professional’s Communicative Competence.

Communicative Competence and Classroom Instruction

Hedderich, Norbert (1991) identified linguistic and Communicative aspects of classroom discourse in four different German classes using qualitative analysis. Form and function oriented activities were frequently combined. Linguistic discourse phases are to be integrated to a greater extent with contextualized Communicative activities where students have the opportunity to express ideas, feelings and wishes in the target language. The study was conducted with four different instructors and four classes of the first year students.

Chao, Chin Chen (1992) examined the effectiveness of instructions on conversational skills among 36 elementary school children of III and V grade children divided into three groups namely instructional, guided practice and control groups. The study was experimental one and the sample of the study consists of students neglected by their peers who were deficient in their conversational skills. Findings indicated that children in the instruction group
the rationale condition temporarily increased their skill knowledge whereas the children in the guided practice and control conditions showed no change.

Nijjima, Miyosynder (1993) conducted a case study of communication, reading comprehension in EFL classes in two reading classes of Japanese university. Findings revealed that summarizing in EFL classes is an effective means for evaluating students' evaluation levels of attainment. Teaching students how to organize what they read and internalize the language they are reading in. To teach how to organize what they read we must go beyond teaching is one of the important aspects of Communicative Competence.

Fu, Haiyan (1996) in their ethnographic Chinese language classes concluded that Communicative Competence includes not only language competence and cultural competence but also the openness and readiness of the mind and flexibility of cognition to function in cross contexts. The ethnographic research method includes participants' observation, field notes, audio taping of classroom conversational exchange interviews. The study examines language classroom interactions for a socio cultural perspective. The fundamental assumption is that effective foreign language teaching and learning is a communicative process that involves more than simply instruction.
2.2.2. Communicative Competence and Learning Disability

Mishane, Edward Aruther (1991) studied the relationship between Communicative Competence and social status in learning disabled children in naturalistic inquiry. The study adopts a naturalistic inquiry and the tools were ethnographic observation and interview. The method is experimental one. The findings identified six barriers to achieve Communicative Competence. They are use of inappropriate content, poor prosodic features, inappropriate facial or physical expression, poor turn taking skills impaired ability to perceive social cues, poor tendency to imitate positive interactions.

Jeron, Carol Collem (1993) experimented receptive non verbal communication skills in learning disabled subtypes and non learning disabled child psychiatric patients. The role of emotional disturbance and social learning should be considered in investigations of non verbal processing. The study is an experimental study and the results were non significant with the psychiatric controls showing poorer performance on verbal receptive skills than learning disabled groups. Deficits in non verbal communication skills have been implicated in the development of life-long psycho social disruption.

Maddox, June Irene (1997) studied mother's and special education preschool teacher's perceptions of the Communicative Competence of children with severe multiple disabilities in a survey with structured interviews. The sample consists of mothers and preschool special education
teachers. Both the groups agreed on the functions of the children’s communicative behaviours.

2.2.3. Components of Communicative Competence

**Ford, Carolyn Shamburger (1996)** conducted a study on speech and language service delivery to II grade students in their acquisition of Communicative Competence. It is experimental study forming the II grade students, teachers and speech language pathologists as the sample. The data is descriptive one. Children in both groups received speech and language therapy. Both the groups improved their proficiency.

**Mecarthy, Mary Gage (1996)** studied mother infant communication patterns and the impact of deafness. The sample consists of thirteen mothers and their children and reflective interview form the tool. Results revealed that the acquisition of Communicative Competence depends not only on unique contributions of mother and child variables but also on the variables in the mother child interactions.

**Falk, Ross, Francine.C (1996)** explored addressing language difficulties in the classroom, from a Communicative Competence perspective. Three elementary school boys with language disorders form the sample of the study. Classroom observation is the tool for the study. Remediation strategies for language difficulties were developed. This study indicated that in classroom language intervention supported all three children’s development of Communicative Competence.
Hoffman, Edwina Tamara (1997) in their analysis of cultural content in adult English to speaker of other language curriculum focused on the impact of linguistic and cultural competencies on communication using Hall's map of culture as the tool for the study. The results revealed that both linguistic and cultural competencies are considered essential to effective communication.

2.2.4. Communicative Competence and Oral fluency

Biermann, Bernard Joseph (1993) examined communication related predictors of teaching effectiveness and student performance in basics of public speaking course. The sample consists of male and female teachers. The methodology adopted was correlation. The study investigated the relationships among three communication related characteristics explanatory style, communication apprehension and cognitive differentiation which were the significant predictors of students performance. The findings indicated that communication related characteristics of individuals are related to public speaking performance.

Bearden, Donna Katherine (1993) in their study identified that oral language proficiency was a strong predictor of both mathematical reasoning and basic skills. 1494 students in grade III, IV, VIII and XI was used as sample. Multiple regression analysis was done. Results indicated a surface level understanding of language is insufficient for achievement in mathematics, whereas a deeper level of language, involving an understanding of relationships is needed.
Thomson, Jean Elizabeth (1993) experimented the communication success under specific conditions in a sample of three groups of autistic participants normal and control group. Sample consists of 21 males and 3 females. Findings revealed that the autistic participants regardless of age performed more competently to comments with cues than the normal group.

Enriquez, Rosalie Raminez (1994) studied the influence of language proficiency on limited English proficient students' participation in a bilingual classroom. Three matched pairs of students form the sample and qualitative analysis is followed. The results indicated that Communicative Competence was not identical with language proficiency. Frequency of interaction in the classroom was associated with English language proficiency.

2.2.4. Communicative Competence and Teachers' Role

Parker, Paul Rodney (1992) experimented on the application of Interpersonal communication and group dynamic skills as a curriculum component for the professional development of pre service teachers. Findings supported team building and group contract development, interpersonal communication and group dynamics skills training.

Boggs, et.al (1994) examined the role of Gender and Communicative Competence in university students' evaluations of their Teaching Assistants. This study examined the influence of gender upon students' responses to teachers' communication in the classroom by analysing 220 university students' evaluations of teaching assistants' Communicative Competence,
effectiveness and appropriateness and their satisfaction in communicating with teaching assistants (TA) of both genders. Not surprisingly, students ranked best and worst TAs as significantly different from each other in terms of overall Communicative Competence and in measures of specific competence dimensions of empathy, competence and in measures of specific competence of empathy, affiliation and support, behavioural flexibility and interacting management. No significant gender differences were found for Communicative Competence ratings of men and women TAs within the best and worst categories. Women students tended to be harsher judges of TAs' Communicative Competence than men students. This finding, combined with the findings that women were significantly less likely than men to be chosen as best TA and significantly more likely to be selected as worst TA, indicate the possible presence of subtle gender biases in the teaching evaluation process.

Llorem, Nancy Elizabeth (1994) conducted a study on the relationship of communication, the development of teacher knowledge and the implementation of instructional innovations. The sample consists of three elementary schools. The tools for the experimental study were interview and classroom observations. The results indicated that those teachers who participated in frequent communication had greater knowledge of the innovation and greater degree of implementation.

Smyrnou, Gerrgia (1995) assessed the attitudes of foreign teaching assistants and American students. The sample consists of 279 students and 30
foreign teaching assistants. Questionnaire and comparison were used as the tool for the study. The results indicated that language problems are due to Accent, Grammar and knowledge of social and cultural rule.

Kim, Haeyoung (1997) studied the non native English speakers' teaching characteristics in IIIV setting. The study followed qualitative methodology and the sample consists of Korean educators and U.S students. The findings suggested that distance, educational setting, idea of a teacher as a creator, decision maker and facilitator can create interest among the students.

2.2.5. Communicative Competence and Non verbal aspects

Brown, James Ean, (1991) assessed non verbal ability as a component of language learners' Communicative Competence. Non verbal behaviour includes head nods, gaze direction changes and gestures. The purpose of the study is to include non verbal behaviour in the model of Communicative Competence to design an instrument to assess. The sample consists of 28 non native speakers, and 20 native speakers. The study is experimental one with pre and post test MANOVA.

Haun, Martha Womack (1991) conducted a study on Communicative Competence through Faculty Development. This study indicated that students can be motivated to learn by competent communicators. In general communication experts have better competence, they use more effective verbal and nonverbal immediacy than do faculty as a
whole. An area much in need of development for most faculty members is skill in asking questions. Teacher skilled in questioning techniques can move student back and forth through Bloom’s Taxonomy of cognitive objectives. Too many faculties read from their notes, head down, eyes focused on papers with general disregard for the audience. Communication and power are integrally related and directly affect the classroom climate and subsequently the cognitive learning experience.

Communicative Competence and Cognitive Development

Membacher, Diane Ruth (1993) studied the opportunities for second language acquisition and cognitive development in two ESL settings with four teacher with their Spanish speaking language minority students with five variables. Results indicated that two lessons in the communication based setting were distinct from all other lesson with respect to a number of variables. The results of the study were discussed in the context of opportunities provided in each setting for cognitive growth and language acquisition.

Goodman, Judy (1993) explored the extent to which non linguistic cognitive skills were associated with encouraging language abilities in a group of children with emerging language abilities. Nine children with William syndrome form the sample. These results of the experimental study supported a continuous profile for Williams syndrome subjects in which language abilities were found to dissociate form cognitive abilities.
2.2.6. Communicative Competence and Educational Technology

Fabro, Kim Gina (1997) examined the impact of computer conferencing in higher education by exploring the communication and cognitive developmental issues among 24 students. The interaction between communication and cognitive development was examined. Results showed that computer conferencing can enhance and promote collaboration and critical thinking in distance education setting. It further stresses the importance of social presence and communication in an education oriented computer conferencing environment.

Han, Hae Kyeong Park (1999) video based instruction (VBI) to enhance Communicative Competence at college level. The objective was to identify whether VBI has a positive impact upon learners’ Communicative Competence, listening comprehension, motivation, cross cultural awareness. Eight Students of Duke University form the sample. Interview – pretreatment and post treatment were used as the tool. VBI instruction improved the Communicative Competence, motivation and listening comprehension.
### 2.2.7. Synthesis of the studies on Communicative Competence

<table>
<thead>
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The studies on Communicative Competence revealed important findings. McCain, Barbara, Gayle (1990) study indicated that public speaking is identified as a tool of the industry. Nijima, Miyosynder (1993) in their study stressed the importance of teaching students how to organize what they read and internalize the language they are reading in. To teach how to organize what they read, must go beyond teaching is one important aspect of Communicative Competence. Fu, Haiyan (1996) in their ethnographic Chinese language classes concluded that Communicative Competence includes not only language competence and cultural competence but also the openness and readiness of the mind and flexibility of cognition to function in cross contexts. The fundamental assumption is that effective foreign language teaching and learning is a communicative process that involves more than simply instruction.

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Falk, Ross, Francine C's (1996) study indicated that in class room language intervention supported development of Communicative Competence in all three children. Hoffman, Edwina Tamara (1997) in their study revealed that both linguistic and cultural competencies are considered essential to effective communication. Enriquez, Rosalie Ramirez's (1994) studies indicated that Communicative Competence was not identical with language proficiency. Frequency of interaction in the classroom was associated with English language proficiency. Bearden, Donna Katherine (1993) in their study identified that oral language proficiency was a strong predictor of both mathematical reasoning and basic skills. Loorem, Nancy Elizabeth's (1994) study on the relationship of communication indicated that those teachers who participated in frequent communication had greater knowledge of the innovation and greater degree of implementation. Smyrnou, Gerrgia (1995) assessed the attitudes of foreign teaching assistants and American students. The results indicated that language problems are due to Accent, Grammar and knowledge of social and cultural rule. Haun, Martha Womack's (1991) study on Communicative Competence through Faculty Development indicated that students can be motivated to learn by competent communicators. Brown, James Ean, Ellis, Rod assessed the non verbal ability as a component of language learners' Communicative Competence.
2.3. STUDIES ON MEDIATED LEARNING EXPERIENCE

Studies on Mediated Learning Experience are classified under
i) studies on Structural Cognitive Modifiability
ii) studies on evaluation of Mediated Learning Experience
iii) Mediated Learning Experience and Learning Disabled
iv) Mediated Learning Experience and teachers
v) Mediated Learning Experience and Professionals
vi) Mediated Learning Experience and Parents etc.

2.3.1. Studies on structural Cognitive Modifiability

Gettys, Cynthia, Miller (1990) conducted an experiment on the development of Structural Cognitive Modifiability through focused Mediated Learning Experiences. The tools were interviews and questionnaires. Descriptive statistics was used. This research investigates Reuven Feuerstein’s theory of Structural Cognitive Modifiability (SCM) as achieved during the initial implementation of the COGNET & Mediated Learning Experience. The results showed interesting differences in the students’ attitudes. These differences demonstrated primarily the students’ attitudes toward their own abilities to learn reading.

Seng, Tan Oon; seng, Seok Hoon (1997) focussed on teaching thinking for engineering and applied science students with the help of cognitive modifiability approach. This study shares cognitive intervention approach to teaching thinking to first year student in engineering and applied science course in Singapore. The theoretical underpinnings of the Cognitive
Modification Intervention (CMI) are based on Feruerstein’s theory of Structural Cognitive Modifiability. Embedded in this theory is the theory of Mediated Learning Experience, which propounds that the quality of interaction between a learner and an intentional human play significant role in the cognitive development of the learner. The design of the intervention includes a diagnostic approach for attacking cognitive deficiencies through self awareness and Meta Cognitive activities. Cognitive modification through mediation learning the bridging and use of thinking tools for effective transfer across academic and life situations. The study used four experimental groups with 18-20 students in each group who participated in the intervention. Although the quantitative results of the pre and post test are not yet fully analysed, the subjective experience is encouraging. The results lend support to the school of thought that thinking can be taught and that intelligence is modifiable.

2.3.2. Studies on Instrumental Enrichment and Mediated Learning Experience

Shang, Grace Meiying (1990 evaluated Ferustein’s Instrumental Enrichment program (IE) in the classroom using 20 IE teachers as sample. The study is experimental and the tools were observation coding system with the help of video cassettes. The major goals of IE program are the Intentionality, Meaning, Transcendence and Competence. The findings are i) a significant difference was obtained for the category of transcendence favouring the IE group. ii).‘t’ tests on subcategories indicated significant
differences for meaning and competence. iii) When IE teachers were compared across both IE and non IE classes a significant difference was noted in the category Transcendence. No significant differences were observed for the other three categories or selected sub categories. IE teachers failed to perceive the program as an intervention and did not consciously operate mediation in the classroom.

Hoon, Seng seek (1991) investigated the effect of mediated learning in the primary school classroom. Recent research suggests the importance of social interaction in facilitating knowledge acquisition and transfer. The theory of Mediated Learning Experience has recently been used to develop a teacher-student interaction’s model that is especially applicable to high-risk students. In this model, teachers are involved as mediators in

i) Producing cognitive change in children.

ii) Helping children transcend the immediate situation

iii) Communicating the meaning and purpose of activities

iv) Helping children feel competent.

v) Hegulating behaviour

vi) Community tuition centers in Singapore,

An experimental group of 52 students with the average age of 11 were given Mediated Learning Experience along with the usual academic program for 4 months, while a control group of the same age was given the academic
instruction. The teachers perceived that all the students have difficulty in concentration. The students were observed to have poor study skills and work habits and to lack confidence and motivation. The 15 participating tutors attended a workshop on the Mediated Learning Experiences in which they were trained in supervision, philosophy and field coaching. Students were tested using Raven’s Standard progressive Matrices (RPM) and the Cognitive Ability Test (CAT) and a record of class tests in mathematics and English was compiled. Results showed that Mediated Learning Experience classes in three of four centres performed better on their school tests in mathematics, but that no significant improvement was noted in English, RPM or CAT scores. Tutors’ responses were more encouraging.

Sisco, Linda Joyce (1992) revealed the effect of Mediated Learning Experience through story retelling in young children with learning disabilities of age 5 to 7. Experimental method was adopted. An analysis of observational data helped to uncover the nature of the mediation processes and changes that occurred over time. Mediated Learning Experience proved to be a strategy capable of improving literacy skills in young children with learning disabilities.

Ares, Nancy; Gorrell, Jeffrey (1997) investigated instructors’ responses to learner’s needs from the perspective of Feuerstein’s Mediated Learning Experience theory. 53 adult educators were enrolled as participants in an adult education course in Auburn University. Four scenarios were constructed, each based on one of the five Mediated Learning Experience
criteria (intentionality, meaning, transcendence, competence and task regulation) in each situation that depicted adults experiencing learning difficulties, and participants were asked to select from five choices the solution they would normally offer students. The choices represented a range of teacher behaviours from non interactive to highly mediating. A general question was criterion and feelings of competence. Instructors indicated how they would promote feelings of competence, with choices ranging from non mediating to highly mediating or directing in terms of their intent to facilitate learning and of helping students transfer their learning beyond the particular setting task at hand, and they were mediating in their approaches influencing how the meaning and importance of information is perceived and in supporting the user of regulation of strategies in learning tasks.

Tzuriel, David; Kaufman Ruth (1999) experimented on Mediated Learning and cognitive modifiability: Dynamic assessment of Young Ethiopian Immigrant children to Israel. The study dealt with the relationship between mediated learning experience and cognitive modifiability among children who underwent cultural change. Findings from 29 Ethiopian immigrant first graders in Israel and 23 Israeli first graders show initial differences for both measures but after brief and intensive teaching Ethiopian narrowed the gaps.

Skuy, Mervyn (2002) undertook a study on the development of Mediated Learning Experience based intervention programmes in the context of education in South Africa. This proposes Mediated Learning Experience as
an effective basis for bridging educational gaps and promoting cross-cultural co-existence and integration. A series of controlled studies in South Africa developed and tested programs based on Mediated Learning Experience. Studies suggest the potential value of Mediated Learning Experience based intervention programs in helping to transform the South African education system into an integrated and cognitively base system.

Lidz, Carol S (2002) studied Mediated Learning Experience as a basis for an Alternative approach to Assessment. The study discusses how Mediated Learning Experience is incorporated into testing practices to define an addition to the assessment repertory called dynamic assessment (DA). Operationalized MLE rating scale describes four approaches to DA. A group administered screening procedure. A generic curriculum based approach, an individual assessment for pre-school children and a procedure for determining eligibility for gifted programming.

Posy, Yosef (2002) studied the attitudes of mental health workers and psychologists regarding the usefulness of Mediated Learning Experience as a supplement to multi systemic treatment. This study compares the attitudes of two groups of professionals involved in adolescent drug and alcohol treatment regarding the usefulness of Mediated Learning Experience as a supplement to Multi Systemic Treatment (MST) for substance abuse. 15 school workers and 15 school psychologists completed a rating scale to record their opinions of MST, to assess their reactions to several areas of therapy and to answer questions about parents and teachers as part of the therapy process. The
survey found a favourable attitude toward considering this inclusion as well as no difference between the attitudes of considering this inclusion as well as no difference between the attitudes of the two groups. Limitations were noted on the size of the groups and the method used to obtain respondent. Respondents voiced a positive attitude regarding the addition of Mediated Learning Experience to their treatment plans. The useful role of the school psychologist was demonstrated regarding their ability to contribute to data based decision making.

2.3.3. Studies on Mediated Learning Experience and Mediators

Marcia, Lynn, Dew (1991) conducted an experiment to find out Mediator communication tactics of 40 court mediators. They were observed and their responses were audio taped. The study has important implications for mediators and those who train mediators. The frame work for a mediating model is suggested. Results indicate significantly more formulations in resolved mediations versus unresolved mediations. A significant relationship was also observed between the use of formulations and disputant compliance with the agreement.

Martinello, Marian L (1996) studied the changes in children’s questioning during guided co-inquiry with mentors. The pilot study explored the characteristics of children’s co-inquiry with a mentor and the changes occurring in their questioning with prolonged engagement in mediated inquiry. Six graduate students, who were practicing teachers, acted as mentors
to individual students for inquiry into child-selected topics for 10 weeks. Children between the age group of 5 to 13 years and were form a variety of brainstorming techniques to determine the children's prior topic knowledge and their current questions, experiments to explore specific questions, visits to sites pertinent to the topic, internet sessions and graphic organizers to record and examine data. Mediating children's inquiries involved in the inquiry. Interactive sessions were audio taped. Co-inquiring Pairs maintained inquiry journals in written or graphic format to record questions asked, resources consulted, findings obtained, and new directions for inquiry. Mentors maintained reflective journals and attended weekly graduate seminars on co-inquiry with the principal investigator. Findings revealed that children focused on the real topic of their inquiry around week 3 or 4. When children experienced an anomaly or became aware of variables related to cause effect relationships associated with the topic, they moved the inquiry toward a deepening study of the topic. Depth of study was contingent on time of exploration. Graphic representation of data was found to facilitate the depth of inquiry and examination of relationships among variables.

2.3.4. Mediated Learning Experience and Motivation

Ryder, Mary Grace (1995) analysed the effects of motivational components on performance during a dynamic assessment procedure in three groups. Experimental method with pre test and post test design was followed. The group that received motivational intervention scored higher than the group that did not receive motivational intervention. Results confirmed the
validity of the dynamic assessment procedure using both cognitive and motivational intervention components since an improvement in performance was found due to the complete dynamic assessment intervention.

Tertoole, Robert (1995) conducted an experiment on thinking skills approaches with 19 students of less motive strengths. This study evaluated the effectiveness of Mediated Learning Experience cognitive skills training and attitudinal changes in adolescents with less motive strengths. The experimental methodology with a sample of 19 students at risk describes a holistic co-operative and mediational approach to classroom learning and the facilitation towards critical and creative thinking.

2.3.5. Studies on Mediated Learning Experience, Motivation and Meta Cognition

Jones, Martha, Marie Brauer (1995) explored cognitive and Meta Cognitive performance with COGNET Mediated Learning Experience treatment and not treatment control students of Grade K3. experimental study with two groups and the sample was Grade K3 students and two schools in rural Tennesse. ANOVA statistic was applied. The results did not support COGNET effectiveness for improved efficiency in the Meta Cognitive variables. The efficiency paradigm as hypothesized may be questioned since this is a group of at-risk learners. These results appear confounded by instrumentation, implementation and age and developmental factors.
2.3.6. Studies on Mediated Learning Experience and Thinking

Seng, SeokHoon (1997) conducted a study under the title “Using Mediated Learning Experience to enhance children’s thinking”. This study focuses on the relationship between adult-child interactions and the developing cognitive competence of young children as rated by the Mediated Learning Experience (MLE) scale. This scale was devised to reflect 10 criteria of adult-child interaction hypothesized to comprise an (MLE) and therefore to enhance children's cognitive development, as described by Jensen, Feuerstein (1987)

i) Intentionality and reciprocity, when the mediator deliberately guides the interaction in a chosen directing and the learner responds.

ii) Meaning, the significance and purpose of an activity.

iii) Acquisition of principles or concepts.

v) Competence, a positive belief in one’s ability, the motivation to try, and the determination to persevere.

vi) Self-regulation and control of behaviour, monitoring a task in order to adjust one’s behavior appropriately.

vii) Sharing behaviour, the interdependence of the mediator and the learner, referring to the mutual need for cooperation at a cognitive and affective level.
viii) Individualization, the sense of uniqueness and difference from others which fosters personal autonomy.

ix) Goal planning, the setting, planning, and achieving of goals through an explicit process.

x) Challenge, a feeling of determination and enthusiasm to cope with novel and complex tasks.

xi) Self change, the felt responsibility for being aware of changes within oneself, necessary to become an independent and autonomous learner.

**Garrison, Steve John (1997)** studied the influence Meta Cognition prompting on learning with computer mediated problem sets. Qualitative information by interviews showed that students used Meta Cognitive techniques while problem solving. Informal observations indicated that the students enjoyed computer mediated problem sets and were highly motivated to arrive at correct responses to solutions.

**Schur, et. al (2002)** investigated on a thinking journey based on Constructivism and Mediated Learning Experience as a vehicle for teaching Science to low functioning students and enhancing their cognitive skills. The study describes development of an experimental astronomy curriculum or thinking journey based on a combination of constructivism and Mediated Learning Experience. Results indicated the effectiveness of the thinking journey in promoting a process of positive change in the students'
conceptualization of earth, improving their knowledge of astronomy, enhancing their general scientific knowledge and developing their cognitive functioning and problem solving abilities.

2.3.7. Studies on Mediated Learning Experience and Learning Disabled

Tzuriel, et.al (1992) undertook a study on cognitive modifiability and cognitive performance of deaf and hearing pre school children. 26 deaf and 26 pair matched hearing pre school children were selected for the study. First their cognitive modifiability using dynamic and static convention instruments were assessed. The factorial pattern of the cognitive measures in both groups were compared. Results are interpreted according to the Structural Cognitive Modifiability and Mediated Learning Experience theory and communication barriers

O’Halloran, Paul David (1996) studied social skills intervention in a residential of deaf children. The study was conducted in a summer camp setting for 94 children with learning disabilities. Three instruments were employed to measure teacher observed social skills, participant perceived social skills, and the social information processing skills of the participants. The findings supported the structure and positive mediated nature of the intervention supported growth.

Martin, David S (1996) experimented on Mediated Learning Experience and Deaf learners. A classroom cognitive intervention model for adolescents and adults who are deaf is explained. The model provides
Mediated Learning Experience and learning problem solving strategies. The students are given a program, entitled Instrumental Enrichments (IE), which gives repeated opportunities to reflect on their own thinking processes, IE develops the prerequisites for learning and recognize the representational and symbolic levels of thinking as appropriate expectations. IE provides a mechanism for transfer of cognitive skills by student’s real life and curricular situations; and IE postulated that it is never too late in the individual’s life for modifying cognitive structure. Nine studies on the use of IE high learners who are deaf/hearing impaired are discussed. The results indicate that students measurably improved in skills of reading comprehension, mathematical computation, problem-solving and abstract thinking.

2.3.8. Studies on Mediated Learning Experience and Parental mediation

Alvarez, et.al (1997) compared the relationships between home and school mediation, parental perception and the school functioning of preschool mainland to Rican children of 24 participants. A Mediated Learning Experience rating scale was used to assess Mediated Learning Experience in teacher child reactions. Results showed significant difference between caregivers and teachers’ mediation. The teacher group mediated at higher levels. The study revealed that the teachers group mediated at higher levels. School mediation is observed to be more influential than home mediation.

SeokHoon, Alice Seng (2001) studied the impact of Parental involvement in child assessment. This study examines the status of parents in
the developmental assessment process and considers how involving parents join with the professional to assess their young child. This may provide very accurate and valuable information. The paper explores the use of Mediated Learning Experience (MLE) approach as framework for increasing support for parental involvement in the assessment process. It is suggested that changes occurring in a child’s environment are potentially effective if these changes include learning experiences mediated by an adult. Criteria of Mediated Learning Experience such as intentionality, reciprocity, individualization, goal planning, and challenge, self-change are explained. Nine cases of children’s behaviour ranging from separation anxiety to avoidance of school task were discussed by 25 Singapore parents working in groups in a 3 day workshop to introduce the concepts of Mediated Learning Experience and their relationship to behaviour identification and management. A case is identified academic task as major concern in their daily mediational assessment presented here has implications for working with parents and for training of professional who work with them.

2.3.9. Mediated Learning Experience and Pre service Teachers

Seng, SeokHoon (1997) conducted a study on Mediated Learning Experience, its application across diverse groups- pre service teachers in Singapore. In response to recent stress on incorporating core thinking into subject curriculum, the Mediated Learning Experience as being incorporated into the pre service training modules of the Singapore National Institute of Education. (NIE). This study examines
i) The factors contributing to the pre service teacher's commitment to using Mediated Learning Experience.

ii) The specific components of Mediated Learning Experience that are actually implemented.

iii) The extent to which teachers manifest any transfer when teaching content areas.

iv) Practical problems faced by teachers when implementing Mediated Learning Experience in a school setting.

Pre service graduate teachers (N=40) were given 20 hours of training in the application of Mediated Learning Experience criteria during their first year at NIE. Graduate teacher trainees were posted for about 10 weeks of teaching practice in several primary and secondary schools. Anecdotal records, videotapes of Mediated Learning Experience lessons and a reflective rating scale were used. Most participants reported that they would continue to use Mediated Learning Experience procedures even after graduation. Some suggested that in service training should facilitate proper implementation of the program.

2.3.10. Overview of the Studies on Mediated Learning Experience

<table>
<thead>
<tr>
<th>Year</th>
<th>Author</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>Gettys, Cynthia, Miller</td>
<td>Interesting differences in the students' attitudes were demonstrated primarily the area students' attitudes toward their own abilities to learn read.</td>
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<tr>
<td>1990</td>
<td>Shang, Grace Meiying</td>
<td>IE teachers failed to perceive the program as an intervention and did not consciously operated mediation in the classroom.</td>
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<tr>
<td>1991</td>
<td>Hoon, Seng seok</td>
<td>Mediated Learning Experience classes in three of four centres performed better on their school tests in mathematics.</td>
</tr>
<tr>
<td>Year</td>
<td>Author(s)</td>
<td>Summary</td>
</tr>
<tr>
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<tr>
<td>1991</td>
<td>Marcia, Lynn, Dew</td>
<td>A significant relationship was also observed between the use of formulations and disputant compliance with the agreement.</td>
</tr>
<tr>
<td>1992</td>
<td>Sisco, Linda Joyce</td>
<td>Mediated Learning Experience proved to be a strategy capable of improving literacy skills in young children with learning disabilities.</td>
</tr>
<tr>
<td>1992</td>
<td>Tzuriel, David; Caspi,</td>
<td>Dynamic and static convention instruments were assessed. Both the groups were compared.</td>
</tr>
<tr>
<td>1995</td>
<td>Ryder, Mary Grace</td>
<td>Improvement in performance was found due to the complete dynamic assessment intervention.</td>
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<tr>
<td>1995</td>
<td>Tertoole, Robert,</td>
<td>Effectiveness of Mediated Learning Experience cognitive skills training and attitudinal changes in adolescents with low motive strengths.</td>
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<tr>
<td>1995</td>
<td>Jones, Martha, Marie Brauer</td>
<td>The results did not support COGNET effectiveness for improved efficiency in the Meta Cognitive variables.</td>
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<tr>
<td>1996</td>
<td>Martinello, Marian Lin</td>
<td>Graphic organization of data was found to facilitate depth of inquiry and examination of relationships among variables.</td>
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<tr>
<td>1996</td>
<td>O' Halloran, Paul David</td>
<td>Structure and positive mediated nature of the intervention supported growth.</td>
</tr>
<tr>
<td>1996</td>
<td>Martin, David S</td>
<td>Students measurably improved in skills of reading comprehension, mathematical computation, problem-solving and abstract thinking.</td>
</tr>
<tr>
<td>1997</td>
<td>Seng, Tan Oon; seng, Seok Hoon</td>
<td>Thinking can be taught and that intelligence is modifiable.</td>
</tr>
<tr>
<td>1997</td>
<td>Ares, Nancy; Gorrell, Jeffrey</td>
<td>Instructors promote feelings of competence, helping students transfer their learning beyond the particular setting task at hand.</td>
</tr>
<tr>
<td>1997</td>
<td>Seng, Seok Hoon</td>
<td>MLE enhance children’s cognitive development.</td>
</tr>
<tr>
<td>1997</td>
<td>Garrison, Steve John</td>
<td>Students enjoyed computer mediated problem sets and were highly motivated to arrive at correct responses to solutions.</td>
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<tr>
<td>Year</td>
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<td>Description</td>
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<tr>
<td>1997</td>
<td>Alvarez, Ortiz, Lourdes.A</td>
<td>teachers group mediated at higher levels. Between school and home mediation, school mediation is more influential.</td>
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<td>1997</td>
<td>Seng, SeokHoon</td>
<td>Most participants reported that they would continue to use Mediated Learning Experience procedures even after graduation.</td>
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<tr>
<td>1999</td>
<td>Tzuriel, David; Kaufman,</td>
<td>Initial differences for both measures but after brief and intensive teaching Ethiopian narrowed the gaps.</td>
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<tr>
<td>2001</td>
<td>SeokHoon, Alice Seng in</td>
<td>daily mediational assessment presented here has implications for working with parents and for training of professional who work with them.</td>
</tr>
<tr>
<td>2002</td>
<td>Skuy, Mervyn</td>
<td>Mediated Learning Experience based intervention programs in helping transform the South African education system into an integrated and cognitively base system.</td>
</tr>
<tr>
<td>2002</td>
<td>Lidz, Carol S,</td>
<td>Individual assessment for pre-school children and a procedure for determining eligibility for gifted programming.</td>
</tr>
<tr>
<td>2002</td>
<td>Posy, Yosef</td>
<td>Mediated Learning Experience as a supplement to multi systemic treatment.</td>
</tr>
<tr>
<td>2002</td>
<td>Schur, Yaron; Skuy, Mervyn; Zietsman, Aletta</td>
<td>Effectiveness of the thinking journey in promoting a process of positive change in the students' conceptualization.</td>
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</table>

The studies on Mediated Learning Experience were conducted on different variables. There are some studies on Structural Cognitive Modifiability and Instrumental Enrichment. Many studies evaluated Feuerstein’s theory of Mediated Learning Experience. Variable like Listening Comprehension, Mediator Communication tactics, motivational and cognitive, Meta Cognitive components, thinking skills, direct social skills
instruction, computer mediation, relationship between home and school mediation, and parental mediation were studied. The results of Gettys, Cynthia, Miller’s study (1990), showed interesting differences in the students’ attitudes. Seng, Tan Oon; seng, Seok Hoon (1997) conducted a research on teaching thinking for engineering and applied science students with the help of cognitive modifiability approach. The theory of Mediated Learning Experience, which propounds that the quality of interaction between a learner and an intentional human play significant role in the cognitive development of the learner. The results lend support to the school of thought that thinking can be taught and that intelligence is modifiable.

Hoon, Seng seok’s (1991) study examined teachers as mediators in

i. Producing cognitive change in children.
ii. helping children transcend the immediate situation
iii. Communicating the meaning and purpose of activities
iv. helping children feel competent.
     v. regulating behaviour

Results showed that Mediated Learning Experience classes in three of four centres performed better in their school tests in mathematics, but that no significant improvement was noted in English, RPM or CAT scores. Tutors’ responses were more encouraging. Shang, Grace Meiying (1990) in their evaluation of Ferustein’s Instrumental Enrichment program (IE) in the class room compared the IE teachers and Non IE teachers. No significant differences were obtained for the other three categories or selected sub categories. IE teachers failed to perceive the program as an intervention and did not consciously operated mediation in the classroom. Mediated Learning
Experience proved to be a strategy capable of improving literacy skills in young children with learning disabilities (Sisco, Linda Joyce 1992)

Skuy, Mervyn (2002) research study suggests the potential value of Mediated Learning Experience based intervention programs in helping transform the South African education system into an integrated and cognitively base system. Lidz, Carol S (2002) studied Mediated Learning Experience as a basis for an Alternative approach to Assessment. Areas, Nancy; Gorrell, Jeffrey's (1997) investigation on instructors indicated how they would promote feelings of competence, with choices ranging from non mediating to highly mediating or directing in terms of their intent to facilitate learning and of helping students transfer their learning beyond the particular setting task at hand. Marcia, Lynn, Dew's (1991) experiment has important implications for mediators and those that train mediators.

Tertoole, Robert (1995) evaluated the effectiveness of Mediated Learning Experience cognitive skills training and attitudinal changes in adolescents with low motive strengths. Jones, Martha, Marie's study's (1995) results did not support COGNET effectiveness for improved efficiency in the Meta Cognitive variables. The study of Schur, Yaron; Skuy, Mervyn; Zietsman, Aletta (2002) describes development of an experimental astronomy curriculum or thinking journey based on a combination of constructivism and Mediated Learning Experience. Results indicated the effectiveness of the thinking journey in promoting a process of positive change in the students' conceptualization. Seng, SeokHoon (1997)'s study

SeokHoon, Alice Seng (2001) explored the use of Mediated Learning Experience (MLE) approach as framework for increasing support for parental involvement in the assessment process. Seng, SeokHoon (1997) conducted a study on Mediated Learning Experience, its application across diverse groups—pre service teachers in Singapore. In response to recent stress on incorporating core thinking into subject curriculum, the Mediated Learning Experience as being incorporated into the pre service training modules of the Singapore National Institute of Education. (NIE). Most participants reported that they would continue to use Mediated Learning Experience procedures even after graduation. Some suggested that In-service training should facilitate proper implementation of the program. An analysis of the studies on Mediated Learning Experience supported the use of tools such as Inventory and Rating Scales in measuring Mediated Learning Experience.
2.4. STUDIES ON METACOGNITION

The studies on Meta Cognition are grouped under the following headings.

- Problem solving
- Learning disabled
- Reading comprehension
- Writing
- Memory
- Second Language
- Academic achievement
- Self Regulation
- Computers
- Motivation
- Perception

2.4.1. On Problem Solving

Dorfman, Jennifer (1990) studied "Meta Cognition and incubation effects in insight problem solving". An interview was used to assess Meta Cognitive knowledge. Percentage analysis, error detection paradigm were used. Findings revealed that a spreading activation process plays a fundamental role in at least certain forms of insight problem solving.

Enoch, Ina (1993) conducted a study on the cognitive behaviour modification, Meta Cognition and attribution training and their effects on problem solving deficits and self efficacy. The objective of the study was to determine whether the combination of cognitive behaviour modification, Meta Cognition and attribution training would improve a students' ability to
problem solving and improve one's self efficacy. The sample consisted of 117 subjects. Single case experimental design was followed. Visual inspection and non-parametric statistical analysis, Wilcoxon paired ranked test revealed a significant difference between five of six pre and post tests. The study reinforces the importance of teaching strategies for problem solving. The subjects demonstrated better planning and organizational skills and were able to stop and think before determining a solution.

Wilburve, Jane Murphy (1997) studied the effect of teaching Meta Cognitive strategies to pre service elementary school teachers on their achievement and attitude. The study is quasi experimental and two classes with 25 students were selected for the study. Problem solving achievement test forms the tool of the study. 2 by 2 ANOVA, Matched pair Signed ranks test statistics were followed. Students in the experimental study significantly improved in both problem solving achievement and attitude towards problem solving. The students in the non Meta Cognitive treatment significantly improved in problem solving achievement but not in attitude.

Sherzer, Morechai (1997) studied the effects of Meta Cognitive and meta social process on mathematical problem solving skills. There are two groups of Israeli college students form the sample of the study. One group combines Meta Cognitive and meta affect skills and the other group only Meta Cognitive training. The study followed both the methodology experimentation and content analysis. Inconsistent with the hypothesis the group with Meta Cognitive skills training only showed significant superiority.
over the group with combined skills training for the level of meta strategy
knowledge.

2.4.2. On Learning disabled

Hannah, C.Lynne (1990) undertook a study on Meta Cognition in
learning disabled gifted children. In recent years, research with students
identified as academically gifted has focused to perform at high levels of
ability. The present study explored the role of Meta Cognition in
giftedness. 48 boys, 24 from elementary and 24 from high school were
selected. Interview, error detection paradigm, paired with think aloud method
were the tools of the study. Multivariate analysis was followed. Results
support the hypotheses that giftedness is related to the use Meta Cognitive
skills in a comprehension monitoring task. The learning disabled subjects
perform characteristically like their gifted peers with the use of Meta
Cognitive knowledge and skills.

Engelbrecht, Petra (1991) conducted a research study on the
usefulness of cognition and Meta Cognition to improve psychotherapy for
children with behavioural and emotional problems. Practical use of Meta
Cognition in psychotherapy with children is a complex matter. The
implementation of Meta Cognitive goals in pedotherapy compels the
orthopedagogue to transcend the boundaries between orthodidactics and
orthopedagoics in order to give an inter-graduate explanation of problems
pertaining to child behaviour.
Bunker, Meliss Rankin (1997) conducted a study on a comparison of the Meta Cognitive knowledge about reading of IV grade students with and without learning. 88 IV Graders from seven elementary schools with 38 Learning Difficulties and 50 without Learning Difficulties were used as samples. Results revealed that although there is significant difference between the Meta Cognitive knowledge about reading between students with without Learning Difficulties.

2.4.3. On Reading Comprehension

Lenhart, Irene H (1994) studied Meta Cognitive monitoring strategies of III to VI grade proficient and less proficient readers. The study comprises of 22 III graders and 38 V graded students. Interview was used as the tool of the study. The study revealed that Cognitive development appeared to be pre requisite to Meta Cognitive monitoring. Meta Cognitive monitoring did not seem to develop in isolation but appeared to be influenced by the development as well as instructive intervention and parental input. Children seem to self monitor the understanding of printed material only to the extent to which it made sense related to their background knowledge.

Accetturo, Christine, M (1996) undertook a study on Meta Cognitive reading. 287 undergraduate colleges students were the sample of the study. A scale was framed to measure the of Meta Cognitive reading awareness in college students.
The MRM (Meta Cognitive Reading Measure) was based on the Index of Reading Awareness (IRA) by Jacobs and Paris (1987). Exploratory factor analysis indicated a three factor solution with subscales for beneficial reading behaviours. The arrangement of items into the three suggests an alternative terms, understandable to the developmental populations to which Meta Cognitive strategy instruction is aimed.

Sato, Edynn Yuri (1997) experimented on children’s strategy use, Meta Cognition and subsequent comprehension in reading. The subjects of the study were 259 Los angels IV grade students classified into two groups. Results indicated with only four days of instruction that the student appeared to learn and apply the reading comprehension strategies.

Maletta, Diane Stanely (1997) undertook a study on Meta Cognition of high achieving III grade readers and low achieving III grade readers. The sample consists of 18 III grade low and high achievers. Fifteen different reading strategies were followed with verbal protocols and think alouds. High achievers are likely to utilize more reading strategies than low achievers. High achievers use more complex reading strategies than low achievers. High achievers appear to be more verbal and confident during think aloud task than the low achieving readers.

Hopper, Peggy- F (1997) studied the effect of reading instruction of calibration abilities (Meta Cognition) at risk college reading students. The study was an experimental one with two groups. Correlation matrix was
presented. Results indicated that reading instruction does not increase calibration skills with direct interview.

Darabie, Mohammed Youness (2000) analysed the relationship between college level Jordanian students' Meta Cognitive awareness strategies and their reading comprehension achievement in English as a foreign language. Sample consisted of 300 fresh college students. Meta Cognitive Awareness Questionnaire (MAC) was used to measure Meta Cognition. Descriptive statistics, multiple regression, correlation coefficient, independent ‘t’ test were applied. The study revealed that Meta Cognitive awareness strategies can assist students develop their own judgments and reflects on the topic while reading. Teacher can help students aware of their purposes for reading. Level of Meta Cognitive awareness is 62% among Jordanian students in college level.

Ferguson, Jean Clarke (2001) experimented the effects of Meta Cognitive strategies instruction on VI grade students’ content reading comprehension. There were 41 students from two VI grade social studies classes. In the treatment group there were 20 students and were taught the purpose and values as well as the techniques of self monitoring of summarizing strategy. 21 students in the control group were taught summarizing as a cognitive reading strategy without the Meta Cognitive components of value, purpose and self monitoring. There is significant difference in post test scores of Meta Cognitive strategy knowledge an informal reading comprehension measures. Meta Cognitive strategies
instruction including the value, purpose and self monitoring of the summarizing strategies is most effective in increasing reading comprehension.

2.4.4. On Second Language

Limplath, Pimurai (1994) conducted an experiment on Self Monitoring and monitor use in Second Language Acquisition perceived communication apprehension and satisfaction. Thai College students form the sample of the study. The three fold purpose of the study was to test the influence of the different degrees of the monitoring, use of the second language, the influences of self monitoring adoption and the relationship between second language monitoring and self monitoring. Results suggested that there is higher relationship between self monitoring and concern for social appropriateness and communication apprehension.

In 1994, Torut, SA-Ngam compared language learning strategies of Thai University students in acquiring English proficiency. The methodology followed experimental design. A cloze test used for measuring English proficiency and self reporting learning strategy questionnaire were administered. 611 undergraduate students were included in the sample. ANOVA, ANCOVA and stepwise multiple regression were used in the statistical techniques. It was reported in the findings that the differences in the use of language learning strategies, cognitive strategies are related to studying in different learning disciplines. Thai students’ competence in English teaching context in Thailand is based more on ‘conscious process strategies
than subconscious process strategies. Among the three indirect strategies Meta Cognitive, affective, social strategies on Meta Cognitive strategies scores of the subjects with low English ability level were significantly different from those with better English ability. Compensation of Meta Cognitive strategies were good predicting variables for English proficiency of the subjects in humanities.

EL-Hindi Amelia (1995) investigated the relations between Meta Cognition, Reading and Writing proficiency and Locus of control. I year college students doing I year of the course were selected for the study. Correlated ‘t’ tests, simple regression and multiple regression were used for analysis. Participants received training in Meta Cognitive skill, development as it relates to both reading and writing. Results indicated that while participants gained in Meta Cognitive skill development such gains did not predict gains in reading comprehension or in writing proficiency. Locus of control was not shown to be a predictor of gains in Meta Cognitive skills and development.

Fassler, Rebeth Ziona (1995) conducted a research on the title ‘Room for Talk’ - the use of English as a second language in a self contained multi language context. This study focused on classroom interaction and oral communication of urban English students. The children came form many language backgrounds and the teachers spoke only English. The study was based upon the Communicative Competence and Mediated Learning Experience concepts. Results revealed that the KG classroom was not just a
language learning classroom. The goals were for children to be in touch with the teacher, with each other, with the curriculum and with English. The teacher and the children used a wide range of strategies for negotiating shared meaning. Children’s experiences in teacher-mediated contexts supported their use of English among their peers.

2.4.5. On memory

Siskovich, Frank J (1990) studied meta memory accuracy, cognitive processes in adult graduate students. 32 students of summer sessions and 17 students of winter session form the sample for the study. Tools are the attribution style questionnaire and learning and study strategy inventory were used as tools. Stepwise regression was followed for the statistical analysis. The following findings were reported. Learner’s use of meta memory and motivation correlate significantly with exam performance Learner’s use of meta memory, motivation and attribution style correlate significantly with exam performance. Learners with higher use of meta memory are better able to recall and apply course knowledge better than those who do not use meta memory.

Aziz, Liliane Jabbour (1995) evolved a model of paired cognitive and Meta Cognitive strategies and studied its effect on second language grammar and writing performance. It was an experimental study with 72 students as sample. There are two independent variables, use of grammatical performance and writing performance. There are two groups cognitive and Paired
Cognitive and Meta Cognitive (PCM) groups. Meta Cognition refers to the knowledge and regulation of one’s cognitive process served as the theoretical foundation for the study. Results indicated that the subjects in the cognitive group record improvement in their performance. The PCM group training was highly effective on students’ writing performance and particularly in studies.

Hudelson, Judith Giantomers (1997) undertook a study on Meta Cognition and journaling in process reading. This study investigated relationship between Meta Cognitive skills occurring during in process reading and reading comprehension and motivation to read. The sample consists of V grade elementary class students. Descriptive statistics and ‘t’ tests of correlated samples were conducted. Time series analysis was also followed. Reading comprehension was found to increase over 12 week study.

Staples, Amy Hawthorne (1997) conducted a study on identifying the planning activities for writing of sixth grade students. Eight gifted students, nine slow learners are selected for the study. Descriptive statistics was followed for data analysis. The study was exploratory one and suggests several differences in planning activity between gifted and slow learners. Slow writers made more word and idea levels plans than gifted writers while gifted learners more text level plans than Slow writers.

Schakel, Sharon, Kreum (2001) undertook a study on reflective paragraphs as Meta Cognitive opportunities for writing improvement. The study is qualitative study and examines the role of reflective paragraphs as a
routine activity to provide Meta Cognitive opportunities for college students to identify writing weakness, set goals and make plans to improve writing. Findings of the study confirm previous studies promoting reflection as an important aspect of writing self analysis. Teachers must give students' experiences in critical thinking to aid progress in their cognitive levels which can them foster writing analysis and improvement.

**Dressor, Rocio (2000)** investigated on teaching Meta Cognitive strategies to English language learners in the upper elementary grades. The purpose of the study was to explore the strategies that highly qualified bilingual teachers employ in teaching Meta Cognitive skills to English language learners and how these skills help students to achieve academic competence. The sample consists of Latin students who lag behind. The techniques used in the study were creating mental image, working with other, reading complex text etc. The tool used in the study used was reflection of the participants. Results supported the hypotheses that strategies that highly qualified bilingual teachers employ in teaching Meta Cognitive skills to English language learners help students to achieve academic competence.

### 2.4.6. On Motivation

**Landine, Jeffrey Robert (1995)** studied the relationship between Meta Cognitive approaches and motivation, locus of control and self efficacy. 120 students form the sample of the study. Differential analysis was used. Biggs (1987) model of Meta Cognition was used as the theoretical framework
of the study. The model suggests three distinct approaches to learning, surface, deep and achieving. The results indicated significant positive relationships between Meta Cognition, Motivation, Locus of Control, Self efficacy and academic average.

Yu, Shirley Lynn (1996) conducted a study on cognitive strategy use and motivation in under achieving students. First empirical study consists of 68 middle and high school students. ANOVA, regression and cluster analysis were applied. The first empirical study examined the relations of self competence, strategy use on a memory task and achievement level.

Tertoole, Robert (1996) conducted a study on thinking skills approach with the students of low motive strengths. This study is on the changes in motivation, self concept and cognitive functioning through socio-cognitive learning. The results indicated that the significance of facilitating opportunities for self and socio-cognitive learning may have affected intra and interpersonal changes. These changes led to the improvement of Meta Cognition. Social embeddedness, human growth, school success for students with low motive strength.

Hermann, Sharon Poquethe (1997) conducted a study on cognitive, Meta Cognitive and motivational variables and determinants of learning from text. The sample consisted of college students in two groups. There are two formats in the study, reader friendly and reader unfriendly. The study describes the relationship of motivational and Meta Cognitive variables and
learning from text within adults. The study also explores the effects of textual format on college students' comprehension of text and on their strategy use while reading the text. The study assesses the relation between selected Meta Cognitive views and motivational orientations of these adults and their strategy and text comprehension.

Minnaert, Alexander (1997) undertook a study on Academic performance, Cognition, Meta Cognition and Motivation, assessing flashran character and replicate study in higher education. 155 second year students were selected for the study. A higher level of Meta Cognition can compensate for a lower level of intelligence. Early evaluation of students’ cognitive and affective repertoire should be systematic and self evident in identifying students at risk on the one hand and to provide adequate remedy towards the development of a more effective repertoire on the other hand.

Plants, Robert Thomas (2000) studied the relationship of motivation and Meta Cognition to academic performance in graduate medical education. 98 resident physicians were selected. Participants were surveyed to determine if high achievers have a learning rather than performance goal orientation and high awareness of and ability to regulate their Meta Cognitive skills and to see if their tendencies hold true across genders. For data collection In-training exam, Goal inventory and Meta Cognitive goal inventory were used. Results revealed that there was no significant relationship between motivation and Meta Cognition to academic performance.
2.4.7. On Self regulation

Vanzile, Tamsen, (1996) undertook a study on Meta Cognitive self regulation and daily academic activities of college students. 14 college students were the subjects. Qualitative interviews were used as the tools. The study revealed 12 different Meta Cognitive regulation themes. Participants indicated that Meta Cognitive self regulation is influenced by educational experience, which involve interactions with others (parents, teachers, peers) or specific learning classes, self regulated skills developed as a result of maturity.

Gill, Barbara J (2001) investigated student goals and self regulation in a classroom context. The study was case study of five students of VI grade geography classes, three were highly self regulated and two were less self regulated. Multiple methods were adopted for data collection. They were observations, formal and informal interviews document analysis. A tool named NUD IST 4 was used for coding and sorting the data. The findings are presented in terms of context description and student case descriptions.

2.4.8. On Concept Formation

Lowie, Belinda Yun-ying (1991) conducted a study on enhancing children’s concept of theme with Meta Cognitive instruction. The study was experimental one with two groups comprising 32 fourth grade students with the aim to know whether Meta Cognitive strategy instruction can improve the achievement level of the subjects effectively. In the Meta Cognitive strategy
training the investigator guided students to differentiate theme, main idea and story title. The results revealed that theme can be taught to children by helping them to be aware and to monitor how they identify the author's message and relate themselves to the message.

Nobles, Connie S. (1993) investigated on the title, "Concept Circle Diagrams: A Meta Cognitive learning strategy to enhance meaningful learning in the elementary science classroom. The study was experimental one with two groups, Concept Circle Diagram group (CCD) and traditional method group (TRAD). The two classes of IV grade form the two groups. Qualitative analysis was followed. The CCD group performed significantly higher on concept learning. The CCD group may have outscored the TRAD group on the multiple choice post test due to their active involvement with this new learning strategies.

Holden, Trudy Georgeue (1997) experimented on the relationships among learning styles, Meta Cognition prior knowledge, attitude and science achievement of grade VI and VII students in a guided inquiry explicit strategy. The study was experimental with pre and post test. Interviews were conducted to measure Meta Cognition. The results of the study indicated that students with high levels of Meta Cognition made greater gains in conceptual knowledge than did students with low levels of Meta Cognition. Six of the 24 attitude items loosely defined as self perception and self perception of self regulation, correlated significantly with Meta Cognition and science achievement.
2.4.9. Meta Cognition and Teachers

Collier, Sunyatweenf, (1997) investigated on “Theories of theory and practice: Reflection in elementary pre service teachers. The purpose of the study was to describe and analyze pre service teachers’ reflections about how children learn and what teaching should look like in elementary school classroom. Four elementary pre service teachers were selected and the tool is the interview with open ended written reflections. Conclusions of the study revealed the importance of dialogue, community and reflection as essential and inseparable components for the development of self knowledge, knowledge of how children learn and the development of instrumental strategy. Pre service teachers’ reflections illustrated that education for understanding is of primary importance in elementary education.

Larson, Lynn Marie (1997) investigated into teachers’ perceptions of Meta Cognition teachers’ use of phrases and statements indicative of Meta Cognitive strategies in their III, IV and V class rooms. The sample consisted of 46 respondents. Meta Cognition was defined as the knowledge, awareness and monitoring, control and thought process of cognitive abilities. 22 respondents were interested in learning more about Meta Cognition. No significant relationship between the respondents’ perceptions and definitions was observed.

Dolak, Grace Anne Terasa (2000) explored the use of Meta Cognitive strategies in college teaching. The purpose of the study was to
provide an in depth description and analysis of how university professors used their Meta Cognitive strategies while teaching. Three university professors were included in the sample and qualitative data were collected from observations and interviews. The data yielded in depth descriptions of each case and across cases, an analysis of the issues and overall assertions. The research findings were validated by checks, peer reviews and audit trail and triangulation.

2.4.10. On Achievement

Conlin, Tratntejm Regina (1996) studied the effects of prior knowledge and instructional patterns on academic achievement and Meta Cognition in Global studies. 89 female IX Grade students classified as high and low were the sample of the study. 2 x 2 multiple regression was followed. Students' level of prior knowledge of a subject influences both their academic achievement as well as their level of Meta Cognitive awareness in a subject area. Instructional conversations may have enhanced students' ability to develop their Meta Cognitive awareness in global students.

Price, Debra Patricia (1996) conducted a study on code instruction, literacy tasks and meta cognition in a literature based and a skill based I grade students. Two I grade classrooms were the sample of the study. Qualitative research methods were followed. The study analyses the perceptions, responses and Meta Cognitive awareness of students across those tasks. Literacy tasks in the 'traditional' classroom were low in cognitive
complexity. The cognitive complexity of tasks in the holistic based classroom was high. Results emphasized the strategic instruction in order to assist children in developing Meta Cognitive awareness.

Roche, Andrea Jean (1996) studied Meta Cognition in the library research process. 29 V grade students were selected for the study. The unit plan included Meta Cognitive strategies such as planning, goal setting, self reflection, monitoring process and self evaluation. The Meta Cognitive processes are complex and students differ in how they engage in the processes. Monitoring their own mental processes seemed to allow students the opportunity to achieve their goals and to create successful learning experiences and for themselves.

Second empirical study consisted of 603 college chemistry students and examined the self reported motivational and cognitive correlates of achievement for 603 students. The findings provide evidence for the importance of cognitive and motivational variables in models of students learning and suggest a need to reconsider the construct of underachievement.

Hamann, Donald. L (1996) conducted a study on the effects of Meta Cognition on music achievement of university students. The sample consisted of university music students divided into three groups. The study was experimental and used statistics of ANOVA. This study analyzes the effects of university music students' Meta Cognition of perceptual modality strengths on learning in musicianship classes. The goal was to determine the extent to
which university music students could use Meta Cognition. Regardless of the treatment, subjects benefited from individual instruction in Meta Cognitive strategies.

2.4.11. On Meta Cognitive Strategies

Latimer, Williamwilbur (1992) studied Meta Cognitive training effects on the application of learning strategies but not academic performance. The study was experimental one with 57 undergraduates. Interview was conducted to collect data and the data was analyzed using the chi square technique. Significant differences were found between groups with respect to how strategies were applied as a function of Meta Cognitive training.

Rasnak, Maryann (1995) explored the Meta Cognitive dimensions of the selection and use of learning strategies by adult college students and traditional college students. The sample consisted of 57 college students, 27 adults about age of 25. There are two groups. Interviews and questionnaires are the tools of the study. Statistically significant positive relationship was found between Meta Cognitive knowledge and learning strategy use. The two groups were found to differ significantly in their level of Meta Cognitive knowledge about how to learn.

Radford, Janicedee (1995) studied the impact of multiple intelligence theory and flow theory in the school lives of 30 children. The results indicated that in 13 children Meta Cognition self awareness play significant role in the individual student’s success. The students who considered their options and
reflected on their strengths in relation to their goals appeared most likely to profit from the key school experience.

Asquith, Pamela Sue (1996) conducted a study on relations between Meta Cognitive awareness via instruction of reflective research skills. The sample consisted of VIII Grade students and it is an experimental study with three groups. Measurement of Meta Cognition was measured with the help of interviews, written questionnaires; think aloud protocols and performance on research projects.

Eidson, Caroline Cunningham (2000) studied the development of Meta Cognitive responses in young and gifted children. The sample is 12 participants from kindergarten were the sample of the study. Observation and interview session with open ended questions form the tool of the study. The purpose of the study was to observe and analyse the Meta Cognitive development of gifted children and to identify patterns in this development. Qualitative approach and naturalistic examination of Meta Cognitive ability in young children were detected.

Chre, Richard W, (2000) in their study titled “Teachability and utilization Meta Cognitive strategies in distance learning classrooms”, experimented on the teachability and utilization of a Meta Cognitive strategy involving student generated questioning. The researcher examined the influence of the strategy on the quality of student generated questions, students’ achievement scores and Meta Cognitive awareness levels as
measured by student generated questions, a subject matter achievement test and a Meta Cognitive awareness inventory.

Strange, Nicole Yuette (2001) conducted a study on the effects of journal writing on the reflective Meta Cognitive analysis and study skills of college students enrolled in a critical reading and thinking course. The sample consisted of 15 under prepared college freshmen in two groups. The purpose of the study is to know whether journal writing positively affected the grades earned on reflective Meta Cognitive analysis for students enrolled in section of critical reading and thinking. The ‘t’ test showed that both groups differed significantly. ‘chi’ square analysis showed that there was significant relationship between journal writers and non journal writers.

Ferguson, Jean Clarke (2001) studied the effects of Meta Cognitive strategy instruction on sixth grade students’ reading comprehension. 41 students in two sixth grade students from two schools were selected. Meta Cognitive strategy instruction was the most effective in increasing the reading comprehension of high ability treatment students, it also increased the content comprehension of the low and average reader. Findings indicated that Meta Cognitive strategy instruction including the value, purpose and self-monitoring of the summarizing is more effective in increasing reading comprehension than the summarizing strategy alone.
### 2.5. SYNTHESIS ON THE STUDIES ON META COGNITION

<table>
<thead>
<tr>
<th>Year</th>
<th>Author</th>
<th>Findings</th>
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<tbody>
<tr>
<td>1990</td>
<td>Dorfman, Jennifer</td>
<td>Activation process plays a fundamental role in at least certain forms of insight problem solving.</td>
</tr>
<tr>
<td>1990</td>
<td>Hannah, C.Lynne</td>
<td>The learning disabled subjects perform characteristically like their gifted peers with the use of Meta Cognitive knowledge and skills.</td>
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<tr>
<td>1990</td>
<td>Sm kovich, Frank J</td>
<td>Learners with higher use of meta memory are able to recall and apply course knowledge when compared to those who do not use meta memory.</td>
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<tr>
<td>1991</td>
<td>Engelbrecht, Petra</td>
<td>The implementation of Meta Cognitive goals in pedotherapy compels the orthopedagogue to transcend the boundaries between orthodidactics and orthopedagoics in order to give an inter-graduate explanation of problems pertaining to child behaviour.</td>
</tr>
<tr>
<td>1991</td>
<td>Lowie, Belinda Ying</td>
<td>Theme can be taught to children by helping them to be aware and to monitor how they identify the author’s message and relate themselves to the message.</td>
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<td>1992</td>
<td>Latimer, William Wilbur</td>
<td>Significant differences were found between groups with respect to how strategies were applied as a function of Meta Cognitive training.</td>
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<tr>
<td>1993</td>
<td>Enoch, Ina</td>
<td>The subjects demonstrated better planning and organizational skills and were able to stop and think before determining a solution.</td>
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<tr>
<td>1993</td>
<td>Nobles, Conniesve</td>
<td>Active involvement with this new learning strategies.</td>
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<tr>
<td>1994</td>
<td>Lenhart, Irene H</td>
<td>Meta Cognitive monitoring did not seem to develop in isolation but appeared to be influenced by the development as well as instructive intervention and parental input.</td>
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<tr>
<td>1994</td>
<td>Limpath, Pimurai</td>
<td>There is higher relationship between self monitoring and concern for social appropriateness and communication apprehension.</td>
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<td>1994</td>
<td>Torut, SA-Ngiam</td>
<td>Meta Cognitive strategies were good predicting.</td>
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<td>Year</td>
<td>Authors</td>
<td>Abstract</td>
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<tr>
<td>1995</td>
<td>EL-Hindi Amelia</td>
<td>Variables for English proficiency of the subjects in humanities.</td>
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<td>1995</td>
<td>Fassler, Rebetha Ziona</td>
<td>Locus of control was not shown to be a predictor of gains in Meta Cognitive skills and development.</td>
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<tr>
<td>1995</td>
<td>Aziz, Liliane Jabbour</td>
<td>Children's experiences in teacher-mediated contexts supported their use of English among their peers.</td>
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<td>1995</td>
<td>Landine, Jeffrey Robert</td>
<td>Paired Cognitive and Meta Cognitive (PCM) was highly effective on students' writing performance and was particularly studies.</td>
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<td>1995</td>
<td>Radford, Janicedee</td>
<td>Positive relationships between Meta Cognition, Motivation, Locus of Control, Self efficacy and academic average.</td>
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<td>1996</td>
<td>Accetturo, Christine, M</td>
<td>Children Meta Cognition self awareness play significant role in the individual student’s success.</td>
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<td>1996</td>
<td>Yu, Shirley Lynn</td>
<td>Alternative terms, understandable to the developmental populations to which Meta Cognitive strategy instruction is aimed.</td>
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<td>1996</td>
<td>Tertoole, Robert</td>
<td>Relations of self competence, strategy use on a memory task and achievement level.</td>
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<td>1996</td>
<td>Vanzile, Tamsen, Carolmarie</td>
<td>Intra and interpersonal changes led to the improvement of Meta Cognition. Social embedded ness, human growth, school success for students with low motive strength.</td>
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<td>1996</td>
<td>Conlin Tranttejim Regina</td>
<td>Meta Cognitive self regulation is influenced by educational experience, which involve interactions with others (parents, teachers, peers) or specific learning classes, self regulated skills developed as a result of maturity.</td>
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<td>1996</td>
<td>Price, Debra Patica</td>
<td>Instructional conversations may have enhanced students' ability to develop their Meta Cognitive awareness in global students.</td>
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<td>1996</td>
<td>Roche, Andrea Jean</td>
<td>Strategic instruction in order to assist children in developing Meta Cognitive awareness.</td>
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<td>1996</td>
<td>Hamann, Donald. L</td>
<td>Subjects benefited from individual instruction in Meta Cognitive strategies.</td>
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<td>1997</td>
<td>Wilburve, Jane Murphy</td>
<td>Non Meta Cognitive treatment significantly improved in problem solving achievement but not in attitude.</td>
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<td>1997</td>
<td>Bunker, Melissa Rankin</td>
<td>There is significant difference between the Meta Cognitive knowledge about reading between students with and without Learning Difficulties.</td>
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<td>1997</td>
<td>Sato, Edynn Yuri</td>
<td>Student appeared to be learn and apply the reading comprehension strategies.</td>
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<td>1997</td>
<td>Maletta, Diane Stanley</td>
<td>High achievers are likely to utilize more reading strategies than low achievers.</td>
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<td>1997</td>
<td>Hopper, Peggy-F</td>
<td>Reading instruction or more especially explosive to print does not increase calibration skills with direct interview.</td>
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<td>1997</td>
<td>Hudelson, Judith Giantomers</td>
<td>Reading comprehension was found to increase over 12 week study.</td>
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<td>1997</td>
<td>Staples, Amy Hawthorne</td>
<td>Several differences in planning activity between better and poorer writer poorer students made more word and idea levels plans than better writers while better writers made more text level plans than did poorer writers.</td>
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<td>1997</td>
<td>Hermann, Sharon Poquette</td>
<td>Relation between selected Meta Cognitive views and motivational orientations of these adults and their strategy and text comprehension.</td>
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<td>1997</td>
<td>Minnaert, Alexander</td>
<td>Identifying students at risk on the one hand and to provide adequate4 active towards the development of a more effective repertoire on the other hand.</td>
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<td>1997</td>
<td>Sherzer, Morechai</td>
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<td>1997</td>
<td>Collier, Sunyatweenten</td>
<td>Self knowledge, knowledge of how children learn and the development of instrumental teachers' reflections illustrated understanding is of primary importance in education.</td>
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<td>1997</td>
<td>Larson, Lynn Marie</td>
<td>Respondents were interested in Meta Cognition. No significant relationship between the respondents' perceptions and definitions.</td>
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<td>2000</td>
<td>Darabie, Mohammed Youness</td>
<td>Teacher can help students aware of their improvement in reading.</td>
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<td>2000</td>
<td>Dressor, Rocio,</td>
<td>Teachers employ in teaching Meta Cognitive skills to English language learners help students to achieve academic competence.</td>
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<td>2001</td>
<td>Schakel, Sharon, Kreum</td>
<td>Teachers must give students' experiences in critical thinking to aid progress in their cognitive levels.</td>
</tr>
<tr>
<td>2001</td>
<td>Gill, Barbara J</td>
<td>The findings are presented in terms of context description and student case descriptions.</td>
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The study of **Hannah, C. Lynne (1990)** indicated that the learning disabled subjects perform characteristically like their gifted peers with the use of Meta Cognitive knowledge and skills. **Sin kovich, Frank. J's study (1990)** revealed that the learners with higher use of meta memory are better able to recall and apply course knowledge better than those who do not use meta memory. **Enoch, Ina (1993)** their study reinforces the importance of teaching strategies for problem solving. **Limpath, Pimurai (1994)** conducted an experiment on Self Monitoring. Results suggested that there is higher relationship between self monitoring and concern for social appropriateness and communication apprehension. The study carried out by **Torut, S.A. Ngiam (1994)** revealed that compensation of Meta Cognitive strategies were good predicting variables for English proficiency of the subjects in humanities. In the study of **Aziz, Liliane Jabbour (1995)** Paired Cognitive and Meta Cognitive (PCM) group training was highly effective on students' writing performance and particularly in studies.

**Landine, Jeffrey Robert (1995)** studied the relationship between Meta Cognition, Motivation, Locus of Control, Self efficacy and academic average. In the study of **Wilburve, Jane Murphy (1997)** the students in the non Meta Cognitive treatment significantly improved in problem solving achievement but not in attitude. **Sherzer, Morechai (1997)** Meta Cognitive skills training only showed significant superiority over the group with combined skills training for the level of meta strategy knowledge. **Sato, Edynn Yuri (1997)**
Results indicated with only four days of instruction that the student appeared to learn and apply the reading comprehension strategies.

Maletta, Diane Stanley (1997) undertook a study on Meta Cognition. High achievers appear to be more verbal and confident during think aloud task than the low achieving readers. Minnaert, Alexander (1997) Early evaluation of students' cognitive and affective repertoire should be systematic and self evident in identifying students at risk on the one hand and to provide adequate remedy towards the development of a more effective repertoire on the other hand. Dresser, Rocio (2000) investigated on teaching Meta Cognitive strategies to English language learners in the upper elementary grades. The purpose of the study was to explore the strategies that highly qualified bilingual teachers employ strategies that highly qualified bilingual teachers employ in teaching Meta Cognitive skills to English language learners help students to achieve academic competence. Ferguson, Jean Clarke (2001) Meta Cognitive strategies instruction including the value, purpose and self monitoring of the summarizing strategies is most effective in increasing reading comprehension Schakel, Sharon, Kreum (2001) undertook a study on reflective paragraphs. Teachers must give students' experiences in critical thinking to aid progress in their cognitive levels which can them foster writing analysis and improvement.
2.6. OVERALL SYNTHESIS ON THE REVIEW

On the basis of the analysis of the studies conducted on the three variables Communicative Competence, Mediated Learning Experience and Meta Cognition, it was found that Mediated Learning Experience is new and emerging concept in Education. Studies were conducted on areas like, students' attitude, classroom behaviour, listening comprehension, role of mediators, motivation, attitudinal changes, children with Disabilities, parental perception etc. The effect of Mediated Learning Experience on enhancing the Communicative Competence of the Teacher Trainees is a new problem and suitable methodology and strategies are to be carefully designed based on the following studies.

Meta Cognition is found to be more successful in the academic achievement, Learning Disabled, Problem solving, Reading Comprehension and other fields. The availability of greater number of studies in Meta Cognition shows the successful application of Meta Cognition in education. Many studies were attempted on Second Language Learning. Using Meta Cognition to enhance the Communicative Competence of Teacher Trainees with special reference to the sub skills of Speaking with the affective components is a new study.

The review revealed that most of the studies adopted Experimental and Quasi Experimental methods. Some of the studies followed Content Analysis and Survey method. The statistics used in the above studies are qualitative
analysis, MANOVA, ANOVA, ‘Chi’ square analysis, factorial design, Wilcoxon Signed Ranked test, Correlation matrix, Stepwise Multiple Regression Analysis, ‘t’ test, percentage analysis, error detection paradigm, descriptive analysis, time series analysis, multi-variate analysis etc.

Interview, Meta Cognitive Reading Measure (MRM), Verbal Protocols, Think Alouds, Meta Cognitive Awareness Questionnaire (MAC), Attribution Style Questionnaire, Observations are some of the tools used to measure Meta Cognition. The review of related studies also revealed the difficulty of measuring the Meta Cognition. An analysis of the related studies revealed that assessment and measurement of Meta Cognition, a complex phenomenon in research. Enhancing the Communicative Competence with the effect of Meta Cognition is a new endeavor.

Various topics related to Communicative Competence were analysed and nearly thirty studies were reviewed. Most of the studies were conducted to develop the speaking skills, oral proficiency, communication skill of the school students and also college students. Studies dealing with the various components of Communicative Competence and communicative behaviour of professionals, mothers, care givers and children were conducted. But it was observed that the researcher hardly come across any study on the Communicative Competence of the Teacher Trainees.