Review of Literature

Literature review is very important component of research work and it is concerned with the study of earlier researches carried out in the field of the present research work. It provides the researcher better insight into the research work undertaken in the filed. With literature review, a researcher understands research gaps in terms of the areas which appear to be relevant and should have been studied but not studied; variables / parameters should have been given emphasis but not have been given; particular data should have been used but not used; particular analytical tool should have been employed to analyze and understand the issues in question but not have been employed, etc. A researcher can very well bring this research gaps in his/her proposed research with regard to selection of research topic, setting up of research topic, formulation of hypothesis, developing research plan, etc. and thereby justify the need and relevance of the proposed research problem for investigation.

Knowledge in any given area consists of the accumulated outcomes of numerous studies conducted by generations of researchers and the theories designed to integrate this knowledge and to explain the observed phenomenon. Therefore:

1) One should review the literature for the purpose of finding a link between one’s study and the accumulated knowledge in one’s field of interest.
2) Knowledge of related research enables investigators to define the frontiers of their field.
3) A careful review of the literature can help researchers to revise their initial question so that it can be investigated.
4) A critical review of related literature often leads to insight into the reason for contradictory result in an area.
5) Through studying related research, investigators learn which methodologies have proved useful and which seem less promising.
6) A thorough search through related research avoids unintentional replications of previous studies.

7) The study of related literature places researchers in a better position to interpret the significance of their own result.

The purpose of the present study is to identify the teaching method of teaching Home Science used by the teachers of degree level. It would be necessary to survey some of the studies conducted in this area. It is hoped that the review would provide the awareness about various studies of teaching strategy adopted by the earlier investigators in making such types of studies.

What is effective teaching? How may it be defined? How can one measure it? Researchers have been trying to determine what effective teaching is for years, and a great deal of research has gone into determining what techniques and behaviors a teacher must possess to be effective. Most researches have revealed that the best place to locate the answer to this question of effective teaching is to ask the students who are being taught.

The review of related studies indicate that there is no such study on the effective method in Home Science teaching at degree level, but number of studies have been conducted on the various components of instructional procedures of teaching.

However, the researcher has tried to review and summarize the available up to date researches, conducted on the components of instructional procedure in India and abroad. These studies would throw some light on the meaningfulness of the importance of the present research work.

Clift et al. (1981) described the importance of assessment of teaching in their study. According to them, it helps in professional development of teachers. For apprising teaching the authors suggested five measures: (1) Self critique; (2) colleagues observation and discussion; (3) colloquies participation in conjunction with students; (4) the adversary – The evaluation should include among the staff
and adversary, whose function is to cross examine all evidences with a view to rebuttal counter – argument; and (5) students participation in course appraisal.

Teachers behavior has a significant link to students achievement Englert, (1983); Westwood, (1995) - in an study about teacher effectiveness - found that effective teachers had a high level of presentation and corrected student responses in a short time, also following the students error responses and informing the students of the correct response by giving the suitable feedback.

Braskamp’s (1984) study throws light on the importance of evaluation of teaching. It helps the faculty to improve their teaching and also helps administration for making decisions about faculty members’ promotion, tenure, annual salary adjustment, awards and selection into special development program. He has mentioned five indicators to evaluate the teaching: (i) student; (ii) collogues; (iii) self; (iv) alumni; and (v) records.

Jarrat Report (1985), committee of Vice- Chancellors and Principal (C.V.C.P.) (1986), the 1987 White Paper, Miller (1986) suggested that quality of teaching should be assessed. According to the White Paper (1987) quality of teaching can be assessed by: (1) students’ achievements; (2) non-completion rates; (3) subsequent employment patterns of students; and (4) students achievement compared with entry standard.

In a study by Larrivee (1985) a sample size of 118 teachers in primary inclusive classrooms was used, and concentration was paid to the students with learning difficulties. Larrivee collected her data using four methods: observe the classroom directly, the teacher’s records, self-report from the teacher and interview the teachers and the students. The 74 variables for this study were divided into seven categories. To collect the data she developed 14 instruments to assess all variables. She reported that students with special needs demonstrated a greater level of achievement in the mainstream classrooms when the teacher: used the time efficiently, his or her relationship with the students was
good, gave the students positive feedback, made a high rate of success for learning tasks and responded for all students positively. In contrast, the students who had lowest achievement were in classrooms with a high degree of: off-task actions or behavior, wasted in the time transition process, teachers criticized students’ responses and when there was a low ability in terms of behavior problems interventions. Summarized the study results in the following four main categories:

1. Classroom management.
2. Positive feedback during the instruction.
3. Creating appropriate conditions for instruction.
4. General supportive environment

As per Larrivee, (1985), the effective teacher in the inclusive classroom possesses such characteristics as: efficient use of time; good relationships with students; provides positive feedback; has a high student success rate; and in general provides support for the students with and without disabilities.

Fosnot, (1989) : The traditional passive view of learning involves situations where material is delivered to students using a lecture-based format. In contrast, a more modern view of learning is constructivism, where students are expected to be active in the learning process by participating in discussion and/or collaborative activities. Overall, the results of recent studies concerning the effectiveness of teaching methods favor constructivist, active learning methods.

Joseph Lowman (1990), in his article Professors as Performers and Motivators, believes he has come up with the ingredients that make up effective teaching. Professors who help students appreciate complex material in a clear and orderly way are more likely to be effective than those who are vague and confusing. A number of studies show ratings of interest and clarity to be major
influences on student's ratings of instructors. Lowman combines those techniques here into a single factor interpersonal rapport.

**Robert Boice (1991),** in his article *New Faculty as Teachers*, looks at the first two years of a college teacher's experience. In observing new faculty at two different colleges over a two-year period, Boise was able to show that new faculty indeed did differ in teaching techniques from those more experienced.

New faculty was shown to have a very slow pattern of developing comfort and student approval. They struggled to move beyond the defensive behaviors, such as over-preparation of lectures, and also struggled to find a good support base to help them improve.

**Shanoski and Hranitz (1992)** indicated that an effective teacher: enthusiasm in their work, take care of the students and work cooperatively with parents. In terms of professional development, the effective teacher usually is interested in following the education journals and books, attending and presenting in conferences, and workshops in their field. Effective teachers are interested in participating on most committees in the school and in the community around the school, able to know the students needs and supporting the individual differences, possessing high expectation, encourages the students to be optimistic about their ability, able to increase students' motivation, use different teaching strategies, have good communication skills, loves heir students and knowledgeable knowledge about their subject and subject matter.

**Harold Stephen Turley (1995),** Teachers College, Columbia University, on Perceptions of effective teaching: “The student voice on classroom practice”, investigates effective teaching practices as perceived by a sample of high school seniors looking back over the range of their secondary classroom experiences.

Results indicate that students are well aware of differentiated teaching methods and strategies utilized by teachers and are keenly perceptive about what makes for engaging, effective teaching.
Westwood (1995), in his review of the literature on the effective teacher, found the effective teacher should be a good classroom manager, focusing on academic skills, with good expectation, enthusiasm, using effective strategies to keep students on task and using variety of teaching and resources styles, covering the material content. Also the effective teacher uses easy presentation of material, is direct in teaching, explains and outlines instruction clearly, frequently observes what students are doing, taking into account differences between the students and re-teaching when necessarily, gives frequent feedback for all students and checks for understanding by using probing questions.

Williams, (1997) in her article ("How am I doing"? Problems with student ratings of instructors and courses) talks about a study that looked at the affects of teacher enthusiasm and it’s effects on student’s evaluations of the teacher, and the course in general. Her results were somewhat troubling to teachers. The study involved a psychology instructor from the University of Cornell. He had been teaching the course since the seventies. One year his ratings for the fall semester seemed rather low so the chairman of the department recommended he go to a workshop to improve techniques. The workshop was not at all geared to improving academics, but rather to focus on improving enthusiasm, and increasing gestures used in lecturing. He used the same exact format and lectures as he had in teaching the fall course, even going as far as listening to the lectures from the first semester and memorizing them so as to have them the same the second semester. The only thing that was changed was that he put much more enthusiasm into his lectures. The results were astounding; the students not only rated the class as more valuable, but also rated him and his attributes much higher than the previous semester.

Stanovich and Jordan (1998) indicate that effective teachers who are able to monitor the classroom and the students’ behavior in their class also demonstrate the ability to use body language. Further more they are able to manage the instruction time for the students and themselves and have good expectations for the lesson. In terms of academic ability, the effective teacher has
the ability to review the previous days lesson, before start a new lesson which is important in connecting the previous and the new knowledge for the students, also ensuring their understanding by using questions and monitoring students progress frequently.

Young & Shaw, (1999): What is effective teaching? How may it be defined? These are the questions that Young & Shaw (1999) set out to determine in their study on effective teaching. They surveyed college students from two separate colleges and asked them to rate the techniques of their past teachers. By doing this, researchers were able to determine what behaviors students consider most helpful in the teaching learning process. The behaviors that scored high focused more on personal attributes than the teacher's ability to instruct. The highest were ability to motivate students, genuine concern for students, effective communication, and genuine respect for the student. Items that also scored well were value of the course to the student and course organization. The final results of the study indicated that an effective teacher, in the eyes of students, is one who encourages students to think for themselves.

Literature that discussed good teaching was also examined. Bruner (1987) and Bloom (1994) provided insights into the learning process. McKeachie (1978) and Chickering and Gamson (1987) provided a good background of best practices in college teaching, while Chickering and Ehrmann (1996) applied the practices to technology. Cross and Angelo (1993) Classroom Assessment Techniques contained many tried-and-true practices the faculty team members have been using successfully for many years. Drummond (2002) provided several best practices in teaching. Lubawy (2003) provided a very broad view of developing best practices as well as several specific examples to apply to teaching. Rolheiser and Fullan (2002) validated a few best practices the Bradley research team was finding. Gardiner (1998) gave a broad picture of the higher education process, the shortcomings of student achievement
outcomes, and what research indicates should be done to help students achieve. Angelo (1993) outlined several principles of effective teaching.

According to Borich, (2000 p.8), the effective teaching or teacher’s characteristics are: “lesson clarity, instructional variety, teacher task orientation, and engagement in the learning process and student success rate”

Research by Casado (2000) examined perceptions across six teaching methods: lecture/discussion, lab work, in-class exercises, guest speakers, applied projects, and oral presentations. Students most preferred the lecture/discussion method. Lab work, oral presentation, and applied projects were also favorably regarded.

A comparison of lecture combined with discussion versus active, cooperative learning methods by Morgan, Whorton, & Gunsalus (2000) demonstrated that the use of the lecture combined with discussion resulted in superior retention of material among students.

In terms of students’ preferences for teaching methods, a study by Qualters (2001) suggests that students do not favor active learning methods because of the in-class time taken by the activities, fear of not covering all of the material in the course, and anxiety about changing from traditional classroom expectations to the active structure.

The findings of a study by de Caprariis, Barman, & Magee (2001) suggest that lecture leads to the ability to recall facts, but discussion produces higher level comprehension.

Hattie (2002) indicate that expert teachers have sophisticated representation about what they teach, are able to solve problems without effecting the students personality and take time to understand the problem, and further can also make a decision in the suitable time and identify the important
decisions. Expert teachers can prepare the optimal classroom climate by following the error and giving feedback, scan the classroom behavior effectively and monitoring learning. Expert teachers are more able to monitor students’ problems and assess their understanding whilst providing feedback at the same time, they can see the difficulties facing the students and build strategies and hypotheses and examine or test these strategies and the extent to which they are working by measuring students’ outcomes, they respect their students, they have responsibility over their students, they motivate their students, they build self-concept and self-efficacy for their students, they have a positive influence on their students’ outcome and lead the students through challenging tasks and they have content knowledge.

Hunt et al (2003) also noted favorable student attitudes towards active learning methods.

According to Mastropieri & Scruggs (2004) & Westwood (2003), an effective teacher in an inclusive classroom has the ability and skills to plan for the content coverage and takes into account the difference between students by scope and sequences their objectives. Moreover, effective teachers have good strategies to take advantage of time by maximizing academic time-on-task and have good presentation skills including the variables which might influence the teaching process, thus making the presentation very clear and keeping the students active and engaged, monitoring the academic practices in the inclusive classroom with frequent questioning and giving immediate feedback.

Hunt, Haidet, Coverdale, and Richards (2003) examined student performance in team learning methods, finding positive learning outcomes as compared to traditional lecture-based methods.
In contrast to these findings, a study by Barnes & Blevins (2003) suggests that active, discussion-based methods are inferior to the traditional lecture-based method.

Effective teachers according to Murphy, Delli, & Edwards (2004) are patient, caring, respect their students, organize their classrooms, and as a result their students are enthusiastic.

Perkins & Saris (2001); Yoder & Hochevar, (2005), in their research on group-oriented discussion methods has shown that team learning and student-led discussions not only produce favorable student performance outcomes, but also foster greater participation, self confidence and leadership ability.

Kapur (1981) expressed his views that teachers performance may be measured by: (i) students; (ii) the teacher himself; (iii) his peers and colleagues; (iv) experts; and (v) authorities records.

Shah’s (1981) view is almost same. According to her, the assessment of teacher may be done by : (1) students, opinion, (2) studying the educational product; (3) analyzing teaching practices; and (4) colleagues.

Studies carried out by Bhatnagar (1992) and Bhatnagar and Jain( 1994) also stressed on need of teaching evaluation by students results. If the standards of different universities in the country are to be compared than it would be advisable to examine the result of nationally conducted examinations like National Eligibility Test.

Powar (1993)(1996) had stressed both quantitative and qualitative parameters to evaluate the teaching because educational standards are deteriorating and indiscipline among the students is increasing. To measure the teaching performance five parameters were given:

1. the teaching load of the teachers;
2. the level and nature of the course taught;
3. the innovation introduced in teaching;
4. contribution to curricula development; and
5. the results obtained by students in external examination.

Sharma, Yadvendra K; and Kumar, Naresh (1993) : “Relative importance of teaching skills: Views of Secondary School Teachers.”

Objectives:

1) To identify the relevant teaching skills suitable for effective teaching at the secondary stage.
2) To determine the relative importance of various teaching skills.
3) To identify a cluster of three teaching skills viewed as the most important by the practicing teachers; and
4) To identify a cluster of three teaching skills viewed as the least important by the practicing teachers.

Findings:

1) Promoting pupil’s participation had been viewed as the most important teaching skill at the secondary level, followed by the skill of using teaching aids, questioning, explaining, evaluating, giving assignment, lesson planning, introducing lesson, classroom management reinforcement, writing, instructional objectives, stimulus variation, set induction, facing the lesson and closure.
2) The least important skill according to the teachers are: set induction, facing the lesson and closure.

Sharma (1994) has emphasized on teaching performance to measure the efficiency of the institute. Teaching performance can be measured by: (1) Evaluation of classroom teaching; (i) self evaluation; (ii) systematic student
rating; (iii) informal student opinion; (iv) classroom visits; (v) colleagues opinion; (vi) Student’s examination performance, (vii) Dean’s evaluation; (viii) Head’s evaluation; (ix) Alumni opinions. (2) Evaluation of Teaching Technology: (i) standardization of teaching plan; (ii) Diversification of teaching methods; (iii) Maximization of institutional technology application; and (iv) Diversification of teaching curriculum.


Objectives :

1) To find out comparative effectiveness of Guided Discovery Method (GDM), Inquiry Training Model of Teaching (ITMT) and Traditional Method of teaching and learning for developing mathematical creativity among students.
2) To examine the effects of three teaching methods on development of divergent thinking components of mathematical creativity among students.
3) To assess the effects of three methods of teaching on the development of mathematical creativity among high, average and low mathematical creative.

Findings:

1) The effect of GDM on dimensions fluency, flexibility, creative production and mathematical creativity as a whole was found significant.
2) The effect of ITMT on fluency, flexibility, creative production and mathematical creativity as a whole was found significant.
3) The GDM of teaching was found to be better than ITMT in enhancing originality in mathematics.
4) GDM was found to be significantly better than ITMT in fostering mathematical creativity as a whole among high creative.
5) The effect of GDM and ITMT were found significantly better on fluency, flexibility, creative production and mathematical creativity as a whole among low creative but not on originality dimension.

**Reddy's (1996)** study also stressed on the need of teaching effectiveness. It depends quality of recruits, personal involvement and dedication to the teaching profession.


**Objectives :**

1) To develop and ‘field test’ Science Technology Society (STS) module tests and STS approach of teaching science in middle school.
2) To assess the effectiveness of the STS approach in the development of abilities in multiple domains of concepts, problem solving and decision making, creative thinking and attitude in comparison to the traditional text book approach.

**Findings: **

1) It was found that STS students can do equally well and significantly better in some classes in the concept domain in comparison to text book students.
2) It was revealed that STS approach helps in developing better abilities in the problem solving and decision making domain.
3) STS group and text book group were not found significantly different in creativity domain.
4) It was found that STS group had improved their attitudes towards science teachers and science classes significantly in comparison to the text book groups

Objectives:

1) To find out the effectiveness of guided learning on achievement in Chemistry and attitude towards science; and
2) To find out the relative effectiveness of teaching through guided learning as against traditional methods regarding both achievement in Chemistry and attitude towards science.

Findings:

1) There was significant difference in the mean Pre and Post test scores of achievement in Chemistry and also attitude scores of experimental group in the case of both boys and girls. There was no significant difference in the case of the central group. The guided learning was more effective than the traditional method.


Objective:

To find the relative effectiveness of teaching through information processing models and traditional (lecture) method on the development of knowledge and understanding of the concepts, principles and processes, ability to think logically, creativity, rational outlook, objectivity, spirit of inquiry, decision
making ability, courage to question, ability to draw conclusions and anesthetic sensibility.

Finding:

Information Processing models are more effective than traditional methods in developing understanding of the facts, concepts, and principles related to science; reasoning ability; creativity; rational outlook; objectivity; spirit of inquiry; decision making ability; courage to question; ability to draw conclusion and aesthetic sense among the students.


Objectives:

1) To find out the impact of Integrated Teaching Strategy (ITS) developed by combining aspects of Concept Attainment Model and Inquiry Training Model on the development of the inductive reasoning among students; and
2) To compare the inductive reasoning scores of students studying through ITS with those studying through conventional method.

Findings:

1) It is found that integrated teaching Strategy improved the inductive reasoning of the students.
2) Integrated Teaching Strategy increased students’ inductive reasoning significantly as compared to conventional method. The study cites four references.

Objectives:

1) To develop a Computer Assisted Learning (CAL) programme ‘Bio-Tech’ to teach basic principles of Bio-Technology;
2) To assess the effectiveness of tutorial ‘Bio-Tech’ CAL package in attaining the content objectives when used independently by students; and
3) To examine the influence of this instructional strategy change on the achievement in Bio-Technology and attitude towards science.

Findings:

1) It was found that CAL strategy had a positive influence on the achievement in Bio-technology.
2) Mixed students performed better than single sex groups in Bio-Technology taught through CAL.
3) The experimental group students were found to have a significant favorable change in their attitude towards science after learning Bio-Technology through CAL. The study cites seven references.


Objectives:

1) To determine the degree of attainment of cognitive skills through Computer Assisted Learning (CAL) compared to traditional approach to teaching; and
2) To compare the effect of CAL on the learning achievement of boys and girls.
Findings:

1) Computer Assisted Learning (CAL) resulted in greater learning achievement in all hierarchy of cognitive domain,
2) Male students were found to be superior to female students in learning physics. The study has eight references.

**Bawa, M.S. (2001):** “Professional Development of teachers through Modeling”

Objective:

The study intended to examine the effectiveness of modeling based training in developing teachers’ competence for teaching science.

Findings:

1) Demonstration lessons followed by discussion improve micro-level teaching competencies and macro-level teaching level competencies better than conventional methods.
2) Demonstration lessons followed by discussions are effective in building more positive attitudes of pre-service science teachers towards teaching.
3) Demonstrative lessons provide illustrations of the uses of various teaching strategies and construct classroom interaction.
4) Demonstrative lessons clarify the concept of science process skills and their utility for information processing and also provide insight into development of flexibility and spontaneous decision making abilities in pre-service teachers.

Objectives:

1) To analyze the traditional approach and content-cum-methodology (CCM) approach of teaching mathematics; and
2) To plan, design, construct and test instructional system for teaching of mathematics.

Findings:

1) Instructional system for mathematics developed under the study was more effective than conventional instructional system for both students and pupil teachers.
2) The male pupil-teachers and female pupil-teachers performed differently under both instructional system.
3) Similarly male and female students differed in their performance under both instructional systems.

Reddy, Sulochana; and Rangan, Uma (2001): Teaching strategies, teacher involvement and school achievement.

Objective:

1) To identify the teaching strategies and learning outcomes in pupils;
2) To examine the impact of teacher involvement on the behavioral aspect of pupils;
3) To determine the effect of teacher involvement on self perception and perception of others;
4) To determine if teacher education has any effect on teacher personality, use of teaching strategies, pupil self-concept and outcomes.

Findings:
1) There was a significant effect on few dimensions of teaching strategies such as preparation of lecture, use of audio-visual aids feedback and enquiry methods.

2) Teachers having higher qualifications and training used more teaching strategies as compared to less qualified teacher.

3) Professional training i.e. SGBT, B.Ed, M.Ed had a significant effect in the use of teaching strategies like feedback, classroom management, expository, discussion and participative dimensions.

4) Teacher’s professional qualification also had a significant effect on some of teachers’ personality variables and these variables were adaptable, imaginative, nurturance, endurance accepting and responsible.

5) Teacher with B.Ed training were less imaginative, less accepting and less responsible than teachers with other professional training.

6) Private and aided school were using more participative and knowledge oriented teaching strategies while government school were using task oriented approach i.e. discussion method.

7) Teacher in private and aided school had higher level of teacher involvement i.e. social warmth than government schools, which also resulted on higher achievement.

Sharma, A; and Sansanwal , D.N. (2002): “Comparison among video based instructional strategies for teaching science at class IX level in terms of achievement.

**Objective:**

The study aims to compose the mean scores of achievement of students in science belonging to different video based instructional strategies for teaching science at class IX level.

**Findings:**
1) The treatment has significant effect on achievement in science of students belonging to different video based instructional strategies for teaching science.

2) The video viewing followed by lecture as well as video viewing followed by discussion were significantly higher than those of video viewing only.

3) The mean score of science achievement of video viewing followed by lecture was found to be significantly superior to video viewing followed by discussion.

The study has 8 references.


Objectives:

1) To compare the teacher effectiveness of autonomous college teachers and non-autonomous college teachers.

2) To study the difference in teacher effectiveness of autonomous college and non-autonomous college teachers in relation to gender.

3) To study the difference in organizational climate of autonomous colleges and non-autonomous colleges;

4) To find out the difference in teacher effectiveness scores of autonomous college teachers and non-autonomous college teachers in relation to organizational climate.

Findings:

1) The autonomous college teachers are more effective than the non-autonomous college teachers on teacher effectiveness.
2) There exists a significant difference between autonomous college teachers and non-autonomous college teachers on perception of reality, integration of personality, autonomy, group oriented attitudes and environmental mastery.

3) It reveals that there exists a significant difference between autonomous college teachers and non-autonomous college teachers on the dimensions of organizational climate.

4) The teachers of more effective organizational climate institutions are more effective than the teachers of less effective organizational climate.

Rath, K.K and Panigrihi (2003): “indicators of quality teaching of fundamental concepts of geometry in class IV”

Objectives –

1) to identify the indicators of quality teaching
2) to plan the strategies for experimentation

Findings –

1) the strategies enhanced students participation
2) the indicators used for quality teaching are superior to formal techniques of teaching.
3) As student participation was more and better, the strategies proved effective.
4) Play activities contributed much to motivation and mental readiness for learning.
5) For teacher, too it was motivating; it helped them plan their lesson better. It made them active and challenging. It also helped them keep pace with the wide ranging development in the fields ensuring professional growth.

Objectives:

1) To study whether there exists any difference or not in the mean achievement gain and retention scores of the experimental and control groups.
2) To study the effectiveness of co-operative learning strategy over conventional lecture method of teaching, if any, in terms of achievement and retention in Malyalam language of standard VII pupils.

Findings:

1) Classroom interaction was higher in the co-operative classroom than in the conventional classroom.
2) Achievement and retention in Malyalam language of standard VII pupils depended upon the changes in the instructional learning strategies.


Objectives:

1) To analyze the efficiency of teaching mathematics B.Sc. Degree students through CAI over conventional method for knowledge, comprehension and application objectives.
2) To compare the effectiveness of teaching mathematics through CAI to B.Sc. Degree (Mathematics) students over conventional method in terms of the level of achievement.
3) To study the effectiveness of teaching mathematics through CAI to B.Sc. Degree (mathematics) students over conventional method in terms of objectives of teaching mathematics and their level of achievement.

Finding:

It is concluded that the conventional method is more effective and efficient than CAI method.


Objectives:

1) To study the effectiveness of Self-Learning Modules in terms of achievement of students.
2) To study the effectiveness of classroom environment on achievement of students.
3) To study the interaction of mode of teaching and classroom environment.

Findings:

1) Both the variables- Self Learning Modules and classroom environment can not be ignored in respect of their effect on achievement.
2) There was no interaction between mode of teaching and classroom environment.


Objectives:
1) To study the level of teaching competency of science teachers at higher secondary level in Coimbatore Educational District.

2) To study the association of the level of teaching competency of science teachers with their subject of specialization, qualification, experience, age, income, community, size of the family, nature of job, sex and marital status.

3) To compare the level of teaching competency of science teachers with reference to the type of the management of the school, nature of the school and location of the school.

4) To find out the relationship of teaching competency of science teacher with their job satisfaction, attitude towards teaching profession and intelligence of the students.

Findings:

1) Teachers working in aided and matriculation school have better teaching competency than teachers working in government and corporation school.

2) The teaching competency of more experienced teacher is better than the teaching competency of less experienced teacher.

3) Aged and high-income group teachers have better teaching competency.

4) Private unaided school teachers have better teaching competency and postgraduate teachers have better teaching competency than the graduate teachers.

5) Permanent teachers show better teaching competency than the temporary teachers.

6) Teachers with high income have better teaching competency than teachers with low income.

7) Positive attitude of teachers towards teaching profession, job satisfaction of teachers and intelligence of students increase the teaching competency of science teachers is better than their competency in class IX.
Comments on Review of Studies

A) In Abroad

The review of related literature and researches revealed that most of the studies have been conducted mainly in covering the following areas:

1) Importance of assessment of quality of teaching
2) Importance of evaluation of teaching
3) Teacher effectiveness
4) Traits/characteristics of an effective teacher
5) Learning process
6) Teaching techniques.
7) What is effective teaching
8) Students’ perceptions on various teaching methods.

B) In India

The studies and researches done in India are classified in to following groups according to the nature of the work done:

1) Assessment and evaluation of teaching.
2) Qualitative and quantitative parameters to evaluate the teaching.
3) The identification of different teaching strategies for different subjects.
4) Identification of teaching competencies and their relative importance.
5) The identification of teaching skills and importance of teaching skills.
7) Development of teaching model based skills and strategies of teaching.

From the above it is evident that
i) Most of the studies in abroad are delimited to the teachers of those countries in which the study has been conducted.

ii) It is observed that majority of studies are descriptive or survey type. The observational studies have not been designed and conducted in this area of present study.

iii) Some studies have been conducted for the identification of teaching strategies for science & maths and teaching competencies.

iv) Most of the strategies and procedure identified on the opinions of expert, judges and teachers and not on empirically validated statements. The empirical studies have not been designed for the instruction procedure of teaching.

**Deviation of the Present Study**

(1) It is evident from the analysis of review of related literature that the earlier studies have been done on effectiveness of teaching and teacher competency. While the present study has been done on evolving the effective teaching method in the field of Home Science. Moreover all the studies on teacher effectiveness and competency have been carried out on science, Maths and language.

(2) The methodology of earlier studies was based on experimental design but this study has employed qualitative analysis, though it is an empirical study and it is providing practical unstructured techniques.

(3) Most of the studies have been conducted on the secondary and lower level while this study has been done at degree level.

(4) This study has been designed to identify the teaching method which employs complete teaching methodology i.e. teaching strategies, teaching competencies and teaching skills. On the basis of teaching activities of the classroom, the teaching methods used by the teachers of Home Science subjects have been identified at Degree level.

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Preceding chapter namely ‘Review of Related Research Studies’ was concerned with overview of the research literature, both journals and research papers related to the topic of the study. It helped researcher a lot in including strengths of the other studies and excluding weaknesses found in the work of other researchers. It also helped the researcher in justifying uniqueness of the present work. Chapter in hand namely ‘Research Methodology and Design’ is concerned with the detailed description of the research methodology used in the study, population of the study on which research finding would be generalized, size of sample which is the basis for data collection, sampling techniques used for selection of sample units, tools used for data collection and deciding statistical technique for the study. In succeeding lines above mentioned points have been discussed in their respective orders.

A research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure. In fact, the research is the conceptual structure within which research is conducted; it constitutes the blue print for the collection, measurement and analysis of data. As such the design includes the outline of what the researcher will do from writing the hypothesis and its operational implications to the final analysis of data.

The nature of the problem determines that which design is the most appropriate and how the design should be adopted to meet the requirement of the study. The description of the research design used in the present study has been made easier to conduct and realize the objectives.