Chapter 3

REVIEW OF LITERATURE

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Chapter 3

Review of Related Literature

Teaching is a social act, which demands a continuous change owing to the varying social change. The traditional concept of teaching was to inform the learner about pre-assumed ideas, information and concepts. Emphasis was given on content and acquiring of 'right' information. Students were taught a prescribed curriculum in rigidly structured classrooms. Those learners who conform or reproduce the information provided by the teacher were awarded while those who fail to do so were discouraged or punished. The real life experiences of the students were also considered in appropriate in the teaching-learning process. The role of the teacher was central and the students were treated as empty vessels to be filled by the teacher.

The content imparted in schools during the last decades has no relationship with the student’s real life situations or cultural backgrounds. The major objective of both the teachers and students was to qualify the examination and get good marks. Even though the pupil could understand, speak, read, write and reproduce the matters learned at school to a certain limit, they often failed to apply the learned matter in real life situations. Thus, a good number of the products of the schools failed in expressing the desired outcome of school education. The parents, experts in the field of language education and media, all were demanding for reforms in transaction modalities in the light of new learning theories propounded by several renowned educational psychologists; that demands active participation of students in the teaching-learning process.

The effectiveness of teachers depends on their competence as 'facilitators of learning'. The function of the facilitative teacher is to orchestrate complex 'real life' learning environments which are emotionally supportive and intellectually challenging. The traditional teaching methods and strategies provide little opportunities for learners to divergent thinking and knowledge construction. In the course of the modernization of teaching reform, computer technology, multimedia technology and network technology play very important roles. Means
of modernization is taken as, models of teaching, computer assisted instruction, web-based learning, programmed instruction, team teaching, self-directed teaching, reciprocal teaching, communicative language teaching, co-operative learning, collaborative learning, brain based learning, mastery learning, role play, constructivist approach and problem based learning.

Several educational experts and researchers have stressed the need for innovations in education. (Ruhela, 1990; Ryon, 1995; Resmi, 1998; Rajput, 1994; 1999). The innovation process is vital to the upgradation of educational standards and complete utilization of the facilities available and developing the competencies of teachers.

Bridges and Reynolds (1968) examined the effects of teacher’s belief systems upon their receptivity to classroom innovations. As hypothesized teachers with ‘open’ belief systems were significantly more receptive to change than teachers with ‘closed’ belief systems. Receptivity to change was measured by means of a ten-item scale, each item illustrating a property of an innovation, that is likely to affect its possible trial and continued use.

3.1. Studies related to facilitations and constraints in teaching

So many studies have been conducted to identify facilitations and constraints in teaching. Majority of the studies conducted in this area are connected with language teaching. This may be the due to the fact that language teachers all over the world are affected by so many facilitations and constraints when compared with the teachers handling other subjects.

The purpose of Kinser, Jeong- Lan’s (2004) study was to explore how technology was being used in classroom environment and what factors contributed as supports or hindrances to technology use. Interviews, questionnaires, and observations were used to collect data in two schools. Participant groups included administrators, teachers, and students. Results of the qualitative analysis indicated that most respondents were universally familiar with using technology, but professional development seemed to be needed for teachers to feel comfortable applying their interests and knowledge about using technology in the classroom. Administrators’ support was identified as an important factor in teacher and student use of technology in their schools; their role in terms of funding and training was instrumental. Time appeared as an issue in technology integration.
Spronken-Smith, Rachel Walker, Rebeka; Batchelor, Julie; O’steem, Billy; Angelo, Tom’s (2010) study involved a meta-analysis of 10 cases of inquiry-based learning (IBL) in undergraduate education to determine the factors which both enable and constrain its use. The enabling factors were found to include: teacher attributes being student-centred, reflective but rebellious; course design attributes questions stimulating learning, collaborative learning, progressive development of inquiry skills, required student preparation and constructive alignment; department and institutional attributes IBL being more accepted if permeating a whole programme, the pivotal role of supportive senior management and assistance by staff developers. The major constraints were gaining philosophical buy-in to inquiry approaches; supporting transition to inquiry; developing self-reflection skills; and coping with varied assessment products. Departmental and institutional challenges included timetables and room allocation and the difficulty of recruiting teachers in a research intensive environment.

Subarao’s (1967) study was designed to explore (i) the innovations that were being adopted (ii) the sources of new ideas and (iii) the factors that promoted and inhibited adoption of innovations. It was found that the innovations in secondary schools were in the fields of syllabi, classroom instruction, hobby clubs, audio-visual aids, and school administrations. The main sources of innovations according to the study were extension service departments, head masters, seminars and workshops, training colleges and books and journals. It was also found that the following factors contributed to the promotion of educational innovation:

1. Progressive and enlightened management
2. Cosmopolite and professionally oriented headmasters and
3. Better physical facilities

The main inhibiting factors identified were

1. Inadequate equipment and accommodation
2. Lack of headmasters’ leadership
3. Traditional factors of working
4. Rigid government rates
5. Inadequate grants
6. Lack of teachers initiative and
7. Overcrowded class rooms
The study also revealed that the head masters’ of innovative schools, as compared to their counter parts in non-initiative schools were more academic professionally better qualified, more mobile and had more outside educational and professional experience.

3.2. Studies on facilitations to the modernization of teaching

Narang and Arora (1996) explain that for excellence in teaching one has to master over the modern methods and techniques of teaching. The lecture method is the oldest method in teaching. This method is still used wildly in American colleges and universities. Teaching is considered as a dynamic interaction of individuals and as a decision making one. Teaching must be deliberate and planned. Teachers should use modern instructional strategies to modernize class room teaching.

From the study of Bedell (1999) it is found that the class size reduction improves student learning and teacher morale from the teacher’s perspective. This will be also useful for the effective implementation of modern instructional strategies in the classroom.

The study, “The Input of Interacting on Comprehension”, conducted by Pica, Young and Doughty (1987) about pre-modified input and interactionally modified input has become one of the milestones in class room research. Its results supported the “theoretical claims regarding the role played by interactional modifications in facilitating second language comprehension and also provide guidelines for different interaction patterns in the class room to serve learners’ needs for comprehensible input”.

Sooryamurthy (1999) made an empirical study of 23 schools in a selected region of Kerala and offered some insights in the linkage between infrastructure and performance. His major finding was that the availability of adequate basic facilities serves as a facilitating condition for the performance and academic standards of schools.

Arends (1994) gives stress to the significance of providing leadership for building productive class room environments. He describes a productive learning environment as one characterised by an overall climate where students feel positive about themselves, their peers and the class room as a group and structures and process where student’s needs are satisfied and where they persist in academic tasks and work in co-operative ways with the teacher and
other students and a setting where students have acquired the necessary group and interpersonal skills to accomplish the academic and group demands of the class room. A productive class room structure will certainly act as a catalyst in the modernization of teaching any subjects.

A case study of some schools in Delhi was done by Asharaf (1998) with special reference to innovative classroom practice. This study revealed that about 28.54 percentage schools in the random sample had innovative practices in the classroom situation. The degree of achievement of educational innovations was found to be higher in aided and unaided schools as compared to the government schools. The author stresses the importance of innovative classroom practices which surely act as facilitations to the modernization of teaching.

Chen, Zan; Goh, Christine (2011) studied the difficulties that teachers encounter in teaching oral English in higher education in the English as a foreign language (EFL) context. Open-ended question surveys and semi-structured interviews were used to elicit data. There were 331 EFL teachers from 44 universities in 22 cities across China that responded to the survey questions. Thirty teachers were interviewed for collecting the relevant data. The findings showed that apart from external constraints such as large class sizes and a lack of teaching resources, EFL teachers are frustrated by their low self-efficacy with regard to oral English proficiency and inadequate pedagogical knowledge. Most teachers expressed eagerness to get training in how to design and implement effective tasks to motivate students' engagement in oral English activities. The implications of these concerns for teacher education are highlighted in the call for training programmes that strengthen teachers' knowledge base for effective oral English instruction in the EFL context.

China has been promoting student-centred education under the current curriculum reform. However, teachers in rural schools continue to exercise tight control of the classroom, with lecturing taking up most of the class time. Drawing on ethnographic observation and interviews in a rural elementary school, Wang, Dan’s (2000) study analyses the rationale of rural teachers in strategizing teaching methods. It has found that teachers' pedagogical choices are heavily constrained by both the centralized curriculum and schedule and the social context of rural-urban disparities. Together these constraints create a dilemma of time that significantly limits the room for teachers to experiment with student-centred methods.
Keiser, Jane M.; Lambdin, Diana V (1996) examined time issues raised by sixth-and seventh-grade teachers field testing a National Science Foundation-sponsored investigation-centred mathematics curriculum for middle grades students. Teacher surveys indicated numerous time issues associated with teaching in the spirit of the current mathematics education reform movement and the need for flexibility in scheduling.

Coskun, Abdulla’s study (2011) aimed to reveal whether teachers' classroom practices overlap with their attitudes towards certain features of Communicative Language Teaching (CLT) such as pair and group-work activities, fluency and accuracy, error correction and the role of the teacher. Before conducting an open-ended questionnaire with two teachers of English teaching a group of intermediate students to reveal their attitudes towards CLT, the researcher had observed each participating teacher's lesson for an hour during which they cover a speaking warm-up, a listening extract and grammar presentation with its practice. The findings have indicated that there is a discrepancy between teachers' classroom practices and the attitudes they expressed. The major challenges in the implementation of CLT from both teachers' perspective are found to be large class size, traditional grammar-based examinations and the little time available to prepare communicative materials.

Lee, Jackie Fung-King’s (2009) study attempts to answer the question how do Chinese mainland teachers perceive ELT and whether they are ready for the paradigm shift. The study includes a questionnaire survey with 214 primary English language teachers from Guangdong and observation of two demonstration lessons conducted by local teachers. The findings reveal that although many teachers had a heightened awareness of the importance of using the learner-centred approach to enhance students' communicative competence, their teaching was still directed by textbooks, with authentic teaching materials seldom being used. The study identifies some issues that the education authorities in China need to address in order to implement curriculum reform successfully.

3.2.1. Models of teaching

Over the years a large number of learning theories have been developed by educationalists and psychologists. Such theories of learning alone do not suffice the purpose. Hence based
on these theories, researchers have developed a number of teaching strategies to realise specific instructional goals. These teaching strategies show that there is no single best way to teach everything. Different strategies are required to realise different Instructional goals. These prescriptive teaching strategies which help to realise specific instructional goals are popularly known as ‘Models of Teaching’. Joyce and Weil (1980) have transformed the prevailing theories and theoretical knowledge into different ‘Models of Teaching’.

Jalajakumari (2006) conducted a study to test the effectiveness of Jurisprudential Inquiry model (JIM). The sample selected for the study was Secondary School students of Kerala. The topic selected was ‘Bhookiyude Avakasikal’ by Vaikom Mohammed Basheer. The result of the study shows that JIM is more effective than conventional method of teaching Malayalam.

Concept Attainment Model is found to be the most effective with respect to the achievement of students than the conventional method of teaching and there is a high correlation between the concept attainment scores and pre-requisite scores. The concept attainment scores related to objective under cognitive domain seem to be higher for the control group members. The reception and selection strategies of concept attainment are equally effective in terms of attainment of Science concept. The studies conducted by Gangrade (1987), Resmi Agarwal (1988), Pani (1987) revealed that the Concept Attainment Model can develop the thinking abilities of students in a better way than the Conventional method.

Aggarwal and Misra (1986) inferred from their study on the effectiveness of Reception Model of Concept Attainment for teaching Science concepts that there is a significant difference between the experimental and control groups with respect to their achievement in science. The achievement scores related to knowledge and understanding objectives of teaching for the experimental groups are significantly greater than that of the control group members.

Chaudhary and Vaidya (1986) studied the effectiveness of Concept Attainment Model, Traditional method and Mastery Learning Model in teaching Hindi. The investigators found that Concept Attainment Model and traditional method are equally effective for teaching Hindi grammar concepts while Concept Attainment Model and Traditional method found inferior to Mastery Learning Model.
Remadevi (1998) studied the applications of information processing models. The study shows that Concept Attainment model is more effective than traditional method in teaching Chemistry at the higher secondary level in Kerala.

Hanley et al. (1995) compared the effects of two visual Advance Organizers on comprehension and retention of a written passage in a FLES (Foreign Language In the Elementary School) Programme. The Advance organizers were (1) Video and (2) Picture + Teacher narrative. Investigators randomly assigned 62 students to 1 and 2 conditions. Video was the more effective organizer of the two.

Hun and Plass (1996) focus on how reading comprehension can be facilitated with a multimedia application for second language learning. Results indicates that a dynamic visual advance organizer does aid in overall comprehension and that annotations of individual vocabulary items consisting of both visual and verbal information help more than verbal.

Boyle and Weishaar (1997) conducted a study with 39 high school students with mild disabilities and poor reading comprehension. The students were trained to use either student-generated or expert-generated cognitive organizer to improve literal and inferential reading comprehension. Following training, both groups exceeded the reading comprehension performance of a control group, and students using student-generated organizers had significantly high difference in the scores than those using expert-generated organizers.

Herron, York, Carol and Linden (1998) compared student retention of information in foreign language videos in two advance organizer conditions. Participates were 67 college students enrolled in five sections of a beginning level French course. Findings were interpreted as supportive of the premise that it is significantly better to incorporate an advance organizer with video than not.

Date, P.E (1989) examined the effects of Synectics teaching model on domain specific and strategic knowledge and their interaction. 201 sixth grade students were selected as sample. Results indicated that (1) there was a significant overall effect of treatments (2) there was no significant overall effect of gender (3) treatment had a significant main effect of domain knowledge.
Brown (1980) tested that, whether training in connection making would increase student’s vocabulary, improve reading skill and enhance self-concept. 45 students were divided into three groups and the experimental group was trained in Synectics model of teaching. The result show that students taught through synectics model scored high on self-concept.

Atkinson (1975) developed a series of system for organizing information to promote memory and gave particular attention to one known, technique as the link word method. He used this technique for learning of initial foreign language vocabularies. He experimented with acoustic and imaginary links. The study revealed that, the experimental group learn about 50% more words than the control group and their retention capacity was also very high.

Heavilan (1982) examined whether students in an English composition class would develop the ability to think analogically and divergently by using Synectics as an aid to invention in composition, and whether these students would develop a more positive attitude towards writing. The research indicated that,(1)most of the students used analogical thinking on all the themes.(2)most of the students used divergent thinking on the final theme.(3)most of the students had a more positive attitude towards English, than towards previous writing experiences. Findings show that students learned to think analogically, did not learn to think divergently as a whole but developed a more positive attitude towards writing. The author concluded that, Synectics model, a highly structured group activity based on the invention, use of analogy and oxymoron in problem solving.

Venkit Raman, D (1991) found that sharing the Synectic experience builds a feeling of community among students. To help the students, developing creative writing abilities Synectics model is an excellent instructional strategy. In either expository writing or personalized writing Synectics can help students develop a highly creative style of expression. For exploring social and disciplinary problems or problem solving concerned with social issues, interpersonal relations and personal problems, this model plays s significant role. This strategy is universally useful. It’s effectiveness for enhancing productive thinking, nurturing empathy and improving inter-personal closeness and many uses with all ages and most curricular areas has been confirmed.
3.2.2. Kolb's Experiential Learning

Building upon earlier work by Dewey and Levin, American educational theorist Kolb believes “Learning is the process whereby knowledge is created through the transformation of experience” (1984, p.38). The theory presents a cyclical model of learning, consisting of four stages. One may begin at any stage, but must follow each other in the sequence. The stages are concrete experience, reflecting, thinking and acting. Immediate or concrete experiences lead to observations and reflections. These reflections are then assimilated (absorbed and translated) into abstract concepts with abstract concepts with implications for action, which the person can actively test and experiment with, which in turn enable the creation of new experiences.

During recent years, some of the classrooms have moved away from traditional teacher-centred lecture pedagogies toward learner-centred strategies. Relatively little empirical evidence exists to date assessing the utility of such pedagogies. This exploratory study examined the content and structure of student speech outlines from teacher-centred, lecture-based classes and from learner-centred discussion and experiential-based classes that implement Kolb's (1984) cycle of experiential learning. The results of this examination suggest that students in learner-centred environments do create better outlines than students in teacher-centred, lecture-based classrooms. Future studies should test the generalizability of these results on larger student populations and across curricula.

Hui, W., Hu, P.J's (2008) study shows that Kolb’s experiential learning model based technical assisted learning improves student’s acquisition of knowledge that when compared with face to face teaching (lecture method). This innovative model is very effective in developing the vocabulary of students.

3.2.3. Computer Assisted Instruction

Since the advent of microcomputers in the 1970s, computer use in schools has become widespread, from primary schools through the university level and in some preschool programs. Instructional computers either present information or fill a tutorial role, testing the student for comprehension. By providing one-on-one interaction and producing immediate responses to input answers, computers allow students to demonstrate mastery and learn new
material at their own pace. Computer programmes are interactive and can illustrate a concept through attractive animation, sound, and demonstration. They allow students to progress at their own pace and work individually or problem solve in a group. Computers provide immediate feedback, letting students know whether their answer is correct. If the answer is not correct, the program shows students how to correctly answer the question.

Hawely (1986) studied the cost, effective new and utility of microcomputer assisted instruction. The investigator found that the use of microcomputer assisted instruction in Mathematics significantly improved the Mathematics computations and total Mathematic performance of Grade III students in a rural school division in Canada.

Ayoubi (1986) tested the effectiveness of Microcomputer assisted instruction on achievement in high school chemistry. The study revealed that students spending half their class room instruction time studying Chemistry from micro computer programmes reached the same level of achievement as students receiving instruction only from teachers. Long- time users of microcomputer assisted instruction made better achievement gains than short time users.

Yusuf, Mudasire Olatere (2010) investigated the effects of Computer Assisted Instruction (CAI) on Secondary School students’ performance in biology along with the influence of gender on the performance of students exposed to CAI in individualized or cooperative learning settings package was examined. The research was a quasi-experimental involving a 3x2 factorial design. The sample for the study comprised 120 first year senior secondary school students sampled from three private secondary schools in Nigeria. The students’ pre-test and post test scores were subjected to Analysis a Co variance (ANCOVA). The findings of the study showed that the performance of students exposed to CAI either individually or cooperatively were better than their counterparts exposed to the conventional classroom instruction.

Kiboss, Joel; Wekesa (2006). Studied the effect of a computer based instruction simulation (CBIS) developed for the teaching of School Biology, as a classroom innovation for Science instruction. Comparison of the protest and post test data of the experimental group EI and two control groups C and E2 was used to determine the students’ learning gains with respect to their understanding and perception of cell theory. An analysis of the results showed that the
CBIS programme resulted in significant use of educational media and hypermedia to improve students’ academic achievement and affective behaviours, the study concludes that the innovation has major implications for improving those areas of Science that are difficult to teach and learn using the traditional methods and should therefore be integrated into the existing school curriculum.

### 3.2.4. Web based learning

Web-learning comprises all forms of electronically supported learning and teaching. The information and communication systems, whether networked learning or not, serve as specific media to implement the learning process. The term will still most likely be utilized to reference out of classroom and in-classroom educational experiences via technology, even as advances continue in regard to devices and curriculum.

Web-learning is essentially the computer and network-enabled transfer of skills and knowledge. Web-learning applications and processes include, computer-based learning, virtual education opportunities and digital collaboration. Content is delivered via the Internet, intranet/extranet, audio or video tape, satellite Tele vision, and CD-ROM. It can be self-paced or instructor-led and includes media in the form of text, image, animation, streaming video and audio.

E.L. Deghdidy, Heba; Nouby Ahmed (2008) conducted a study into the effectiveness of a blended E-learning co-operative approach (BeLCA) on Pre-service teacher’s achievement, attitudes towards e-learning and cooperativeness. Quantitative and qualitative methodologies were used with participants of the study. Twenty six Science Post graduate teachers, enrolled in an Egyptian University, represented the experiential and control groups. Pre and post tools were administered to participants in the two groups in a quasi-experimental design. Instruments to measure dependant variables of the study were developed by the authors in light of relevant previous studies. The findings suggest that PST in the experimental group have higher achievement levels in their post-overall course-test “comprehensive score”, and attitudes towards E-learning environments compared to those of the control group. The specific design of the course may be responsible for these changes.
Chang, Mei-Mei (2007) investigated the effects of a self-monitoring strategy on web-based language learning. Both students’ academic performance and their motivational believe were investigated. The interaction between the use of a self-monitoring strategy and the level of learners’ English proficiency was also examined. The sample consists of 99 college students who were enrolled in classes for Freshmen English participated in this study. The experimental group was led to a web page with self-monitoring form for recording study time and environment, learning process, predicting test scores, and self-evaluation while the control group was not provided with such a facility. It was found that (1) the self-monitoring strategy had a significant main effect on students’ academic performance and their motivational beliefs; students who applied the self-monitoring strategy out performed students who did not apply the self-monitoring strategy on both academic performance and motivational believes regardless of their English proficiency level; and the influence of self-monitoring was greater on the lower English level students than on the higher English level students. The positive findings suggest that encouraging students to develop self-monitoring could help increase the success of online learning. Thus, applying a self-monitoring strategy is strongly recommended for web-based instruction.

Blog is considered as an effective tool as far as teaching of language is considered. Arslan, Recep, S., Sahin-Kizil, Aysel (2010) conducted a quasi-experimental study to test the effectiveness of blog-centered writing instruction on student’s writing performance. Fifty intermediate students learning English at a Turkish university participated in the study. The control group (n=23) received in-class process oriented instruction and the experimental group (n=27) integrated blogs in their writing process by using a blog software. The findings of the study show that, blog-integrated written instruction might have resulted in a greater improvement in student’s writing performance than merely in-class writing instruction. The study concludes that The English language teachers’ use of blogs software has potential to promote more effective writing instruction.

Azzawi, May; Dawson, Maureen (2007) studied the effectiveness of lecture-integrated and web supported case studies in supporting a large and academically diverse group of undergraduate students. Case studies and resource (web) based learning were incorporated as two complimentary interactive learning strategies into the traditional curriculum. The overall
aim was to support all students by encouraging self-directed learning. The results show that most students participated in the study, irrespective of academic background, found both strategies useful in supporting the lecture and in providing them with the necessary background knowledge. Students who accessed web-links achieved significantly higher test scores in immunology and in the module as a whole, than those who did not, irrespective of their course of study. Findings from the study encourage the wider implementation of such complementary strategies to support large student groups with divergent prior knowledge.

3.2.5. Programmed Instruction

Programmed instruction is the name of the technology invented by the behaviorist B.F. Skinner to improve the quality of teaching. It is based on his theory of verbal behavior as a means to accelerate and increase conventional learning. It typically consists of self-teaching with the aid of a specialized textbook that presents material structured in a logical and empirically developed sequence or sequences. Programmed instruction may be presented by a teacher as well, and it has been argued that the principles of programmed instruction can improve classic lectures and textbooks. Programmed instruction allows students to progress through a unit of study at their own rate, checking their own answers and advancing only after answering correctly.

Rao (2005) conducted a study on the use of self-learning material (SLM) in distance education. He explained teaching with Programmed Learning, structure of SLM and how Programmed Learning helps in self-study. He concluded that Programmed Learning material was more effective for self-study in distance education. He also discussed the advantages of print materials as accompanying programmed instruction, because they are portable, well-structured compact and easily accessible to the students. Desai (1996) conducted an experimental study to find out whether Programmed Learning Strategy is effective in teaching Physics. His study proved that Programmed Instruction Strategy is better than the lecture method in teaching Physics.

Sansanwal (1995) compared the effectiveness of Lecture method with Programmed Learning material in terms of achievement of Chemistry of XI class students. The result of the study shows that Programmed Learning Method was better than the lecture method as far as the achievement of the students were concerned. Debi (1989) worked on development
and testing of the effectiveness of Programmed Learning Materials in the syllabus of principles of Education in B.T course of Gauhati University. It was found that students taught using Programmed Learning Material performed better than students taught through the traditional method.

Chaudhari (1985) conducted a study on preparation and evaluation of Programmed Learning Material in Geography at the secondary level. The study proved that Programmed Learning Strategy was equally effective in rural and urban schools and for boys and girls.

Chandrika (1981) conducted a study on the effectiveness of Programmed instruction in learning Hindi. She prepared programmed lessons for the learning of certain structures and administered it on a sample of two hundred students for self-instruction. She found that Programmed instruction was an effective strategy for learning Hindi.

**3.2.6. Team Teaching**

Team teaching involves a group of instructors working purposefully, regularly, and cooperatively to help a group of students of any age learn effectively. Teachers together set goals for a course, design a syllabus, prepare individual lesson plans, teach students, and evaluate the results. They share insights, argue with one another, and perhaps even challenge students to decide which approach is better.

Teams can be single-discipline, interdisciplinary, or school-within-a-school teams that meet with a common set of students over an extended period of time. New teachers may be paired with veteran teachers. Innovations are encouraged, and modifications in class size, location, and time are permitted. Different personalities, voices, values, and approaches spark interest, keep attention, and prevent boredom in the classroom.

Exposure to views and skills of more than one teacher can develop a more mature understanding of knowledge often being problematic rather than right or wrong. Learning can become more active and involved. Students could eventually make an input into team planning.
The purpose of Jang, S.J’s (2006) study was to integrate technology and team teaching techniques into Science teacher education courses in order to explore the effects of such integration on Prescience teachers. The participants included one instructor and a total of 42 prescience teachers. A technology teacher teaching model (TTT) was designed to restructure science method courses with technology. This study used a mixed method design, incorporating both quantitative and qualitative techniques. The results revealed that there were significant differences in “designing an appropriate science topic to be taught with technology” and “integrating computer activities with appropriate pedagogy in classroom instruction. The results also showed that the Technology teacher training model could enhance the integration of Science teaching theories and practice. Team-teaching technique facilitated the integration of technology in Science lesson design and teaching practice, and enhanced friendship through interaction.

Dugan, Kimberly; Letterman and Margaret (2008) analysed and compared student appraisals of three different models of team-taught classes to a norm of traditional, solo-instructed courses.

I. Team teaching takes various forms including the simultaneously taught two-person course (co-teaching), the alternating two-person course (alternate), and panel of three or more faculty (panel).

III. Team-taught student assessment data were compared with a baseline of student evaluations of individually instructed courses nation-wide. Results indicate that there are no real differences in student attitudes toward team-taught and traditional classes. However there were some significant differences between the types of team-taught courses.

3.2.7. Self-Directed Teaching

Self-directed teaching is process in which students take the initiative to diagnose their learning needs, formulate learning goals, identify resources for learning, select and implement learning strategies, and evaluate learning outcomes. The role of the instructor shifts from being the 'sage on the stage' to the 'guide on the side' in a self-directed learning environment.” In self-directed learning (SDL), the individual takes the initiative and the
responsibility for what occurs. Learners select, manage, and assess their own learning activities, which can be pursued at any time, in any place, through any means, at any age. In schools, teachers can work toward SDL a stage at a time. Teaching emphasizes SDL skills, processes, and systems rather than content coverage and tests. For the individual, SDL involves initiating personal challenge activities and developing the personal qualities to pursue them successfully.

Beswick, Chuprina, Cantpe and Con (2002) conducted a study on the relationship of self-directed learning with culture, learning styles and creativity. The results of all three studies add to the knowledge of the relationship. Self-directed learning to culture, learning styles and creativity for adult learning.

Davis (2006) conducted a study among Human Resource Development. Practitioners about methods for enhancing professional requirements and found that self-directed learning method enhances their professional development.

Taylor and Burgers (1995) work focuses on the major role played by self-directed learning in a social work course. According to this study more attention should be paid in the course of preparing students for self-directed learning.

Kreber (1998) studied the relationship between self-directed learning, critical thinking and psychological type, and some implications for teaching in higher education. He found significant relationships between self-directed learning and critical thinking. It is argued that educators can foster competence in self-directed learning by providing opportunities for students to develop both their intuitions and logical reasoning skills.

3.2.8. Reciprocal Teaching

Reciprocal teaching refers to an instructional activity in which students become the teacher in small group reading sessions. Teachers model, then help students learn to guide group discussions using four strategies: summarizing, question generating, clarifying, and predicting. Once students have learned the strategies, they take turns assuming the role of teacher in leading a dialogue about what has been read.

Hart and Speece (1998) used reciprocal teaching with college students who were at risk of academic failure and compared them to a group of students who participated in cooperative
learning groups where students were not trained to use reciprocal teaching strategies. The reciprocal teaching groups performed significantly better than their peers in the cooperative groups on reading comprehension and strategy acquisition measures. Moreover, the poorer readers in the reciprocal teaching groups performed significantly better than poorer readers in the cooperative groups, in effect demonstrating that this structured approach to dialoguing together can be used effectively with students in the post-secondary school classes.

Brown and Palincsar (1988) reported teaching reciprocal teaching strategies to junior high school students in remedial classes whose reading comprehension was 2 to 5 years below their grade level. After training in the reciprocal teaching strategies and 20 days’ practice, the students’ comprehensions levels improved markedly. Interestingly, the students generalized the strategies to other classes and tasks distinctly different from the original training task, thereby indicating that they had successfully mastered them and felt confident to use them in other contexts to enhance their understanding of text.

Alfassi (1998) investigated the effects of reciprocal teaching in comparison to traditional methods used in remedial reading in large intact high school remedial reading classes. The results showed that the students who participated in the reciprocal teaching classes obtained higher post intervention comprehension scores than their peers who participated in traditional reading instruction.

3.2.9. Communicative Language Teaching

Communicative language teaching (CLT) is an approach to the teaching of second and foreign languages that emphasizes interaction as both the means and the ultimate goal of learning a language. It is also referred to as “communicative approach to the teaching of foreign languages” or simply the “communicative approach”. The communicative language teaching is a method of teaching a language, which teaches the functions of a language instead of the grammar and vocabulary. This means that students are taught how to get by in specific real-life situations.

Gilmore, Alex’s (2011) quasi-experimental study reports on a 10-month classroom-based longitudinal investigation; explores the potential of authentic materials in developing Japanese learners’ communicative competence in English. Sixty-two second-year university students were assigned to either a control group receiving textbook input or an experimental
group receiving authentic input, and their pre-treatment and post treatment levels of overall communicative competence were assessed. Communicative competence was assessed with a batch of eight different tests: a listening test, a pronunciation test, a C-test, a grammar test, a vocabulary test, a discourse completion task, an oral interview, and a student-student role-play. The results indicated that the experimental group outperformed the control group in five of the eight measures, suggesting that the authentic materials and their associated tasks were more effective in developing a broader range of communicative competencies in learners than the textbook materials. I discuss the pedagogical implications of these findings for language teachers and their learners.

Pae, Tae-II; Shin, Sang-Keun (2011) examined the effects of differential instructional methods on the relationships between intrinsic and extrinsic motivations (IM and EM, respectively), self-confidence, motivation, and English as a foreign language (EFL) achievement for a sample of Korean university students and their teachers. To this end, two instructional groups, communicative and conventional, were selected based on the agreed judgment of both the teachers and their students. The study results showed that EM was related to EFL achievement through motivation regardless of the teachers' communicative orientations, whereas intrinsic motivation showed a relation to EFL achievement through motivation and self-confidence only in a classroom promoting communicative approach of language teaching. These results provided empirical evidence for the effects of differential instructional methods moderated on the structural relationships between SDT variables, self-confidence, motivation, and EFL achievement.

3.2.10. Co-operative Learning

Co-operative learning is a successful teaching strategy in which small teams, each with students of different levels of ability, use a variety of learning activities to improve their understanding of a subject. Each member of a team is responsible not only for learning what is taught but also for helping teammates learn, thus creating an atmosphere of achievement. Students work through the assignment until all group members successfully understand and complete it.

Peterson and miller (2004) compared the experiences of college students during co-operative learning and found that they can lead to greater cognitive involvement, higher levels of motivation, including higher engagement; greater perceived importance of the task, and more
optimal levels of cognitive challenge in relation to skill. These findings led the authors to conclude that carefully designed and monitored cooperative learning tasks can help students engage more actively in their learning experiences. However, the tasks should provide a challenge to students and should require the use of skills they feel capable of using to maximize their involvement in the tasks.

Mangal (2005) advocates co-operative and group learning in place of competitive and individualized approach prevalent in the educational system by redefining the role of the teacher and the learner in a particular teaching learning process. In this study, he examines the features, advantages and hindrances in the path of co-operative learning.

Louis and Balon (2002) conducted a study to examine the effectiveness of co-operative learning over conventional method of textbook approach in enhancing achievement in English. Seventy, VIIIth standard students comprised the sample for the experiment. The result of the study shows that teaching of English through co-operative learning is more effective than through conventional method of textbook approach.

Reid (1992) conducted a study to determine the effect of co-operative learning strategies on mathematics achievement of the VIIth graders. The study concluded that co-operative group learning strategy was more effective in promoting mathematics achievement.

Gopinath (2002) conducted a study on the effectiveness of co-operative learning on interest and achievement in mathematics. The results of the study reveal that co-operative learning is more efficient than conventional method for students’ achievement in mathematics and for improving mathematical interest.

Efe, Rifat; Efe, Hulya Asian’s (2011) study examines the effects of employing student group leaders on the motivation of group members during co-operative learning activities in a secondary school classroom in Turkey. The study was carried out in a period of eight weeks in biology classes during which "living things" and "ecology" topics were taught to a class of 45 students by using Jigsaw and STAD (Student Teams Achievement Divisions). Students were divided into groups of four and a student in each group was assigned as the group leader. Data were collected through interviews with group leaders and group members and through video recordings of one group continuously for eight weeks. The study revealed that student group leaders' influenced the motivation of the group members in different ways.
These were called reward, relationship, role-model, emotion and learning-oriented motivational strategies.

### 3.2.11. Mastery Learning

Mastery learning refers to the idea that teaching should organize learning through ordered steps. In order to move to the next step, students have to master the previous step. Mastery learning engages the learner in multiple instructional methods, learning levels and multiple cognitive thinking types. Mastery learning is an instructional method that presumes all children can learn if they are provided with the appropriate learning conditions. Specifically, mastery learning is a method whereby students are not advanced to a subsequent learning objective until they demonstrate proficiency with the current one. The goal of mastery learning approaches is to have all students learn instructional material at roughly equivalent, high levels. Instructors who use mastery learning break down course material into manageable units and create formative tests for students to take on each of the units.

Cimino (1980) observed that mastery learning involves the identification of specific segments of learning and then mastery of them by individual students. Mastery learning provides a structure for teaching that includes class instruction followed by small group work. It is a group-based approach to individualize instruction in which students often can learn cooperatively with their classmates. Mastery learning is a way to individualize instruction within the framework of traditional classroom setting.

Anderson (1994) synthesized research on mastery learning, examining outcomes in the areas of achievement, retention and affective and related variables. A variety of studies showed that mastery learning has a positive effect on achievement at all levels and for all subjects and results in positive affective outcomes for students and teachers. Several variables affect or are affected by mastery learning like student entry variables, curriculum, type of test, pacing, level of mastery and time.

Meverach and Susak (1999) studied the effects of Co-operative Mastery Learning (CML) on students’ questioning behaviour, creativity and achievement. Comparison of control group students and students trained to generate questions under co-operative mastery learning, Mastery Learning (ML) and Co-operative Learning (CL) indicated that Co-operative Mastery
learning and Mastery learning group of students scored higher on measures of higher order questioning skills and originality.

Lee (1998) found that the mastery learning technique have a significant positive effect on the ability of participants to transfer knowledge from a classroom-training context to a work-related task.

Chaudhari (1986) conducted a study to assess the Effectiveness of Concept Attainment Model (CAM) as compared to Mastery Learning Model on the basis of the achievement scores in Hindi grammar of grade VI learners. The major objective of the study was to compare the effectiveness of concept attainment model, mastery learning model and the traditional method. This study was conducted on 30 students of class VI of a Government middle school of Indore city. Pre-test Post- test, Parallel group design was used for the experiment. Mastery learning model has been found to be superior to CAM and traditional method of instruction.

Verma’s (1991) work on, “Effects of Personalized System of Instruction (PSI) and Mastery Learning Strategy (MLS)” found that both techniques were better than conventional teaching. He also found that low achievers when taught through personalized system of instruction (PSI) or Mastery Learning Strategy (MLS) performed significantly better on summative test as compared to average achievers taught through conventional method.

Sumangala and Malini (1993) studied the effectiveness of mastery learning strategy on Mathematics achievement of secondary school pupils. The results reveal that the mean achievement scores obtained using the mastery learning strategy are greater than the mean achievement scores obtained using traditional classroom teaching methods.

3.2.12. Role Play
Role playing, a derivative of a socio-drama, is a method for exploring the issues involved in complex social situations. It may be used for the training of professionals or in a classroom for the understanding of literature, history, and even science subjects.
When students are involved in a classroom activity designed to promote the learning of specific concepts, it is more likely they will understand and retain the concepts when they engage emotionally in the learning context. The difficulty for teachers involved in higher education is how to engage students in their learning in an emotionally challenging way while maintaining a classroom environment in which students feel safe. Heyward, Paul (2010) studied the use of Role-play as a pedagogical approach for enhancing learning through emotional engagement will be discussed. The study highlights how the author makes use of role-play to provide genuine emotional challenges for students in a tertiary setting while still providing a safe learning environment.

Grant, Katrina; Mistry Malini, Tina (2010) investigated Role-play activities and how they can be used within learning for English as an Additional Language (EAL) pupils in a Key Stage 2 setting in England. The results showed effective role-play activities can be beneficial to EAL pupils, allowing them to practice words and phrases in a relaxed atmosphere supported by peers, teachers or bilingual assistants. Findings suggested that staff required specific training to provide them with strategies for teaching the very varied mixture of language needs and abilities. Recommendations included the use of role-play by teachers and the provision of additional support, thereby enabling staff to feel confident when incorporating role-play.

According to Salies, Tania Gastao (1995) Role-playing is proposed as an ideal technique to teach language because it prepares learners for the unpredictable nature of real-life communication, teaches appropriate language use, and boosts self-confidence. Theories that have paved the way for the current communicative approach to language teaching are reviewed, role-playing is defined, and the rationale for role-playing is outlined, focusing on its effectiveness in the areas noted above. It is argued that role-playing prepares learners for realistic communication, adding emotion, inventiveness, and listener awareness to language teaching. It also contextualizes language use and exposes the student to conversational routines and cultural discussions. role playing gives the students instant evidence of the success of their language usage, fosters retention, and stimulates involvement. It is suggested that the technique be used often, along with other techniques of teaching.

According to Scullard, Sue (1986) the task of the teacher of second languages is to enable the students to progress gradually from teacher or text book controlled utterances to complete
linguistic autonomy. His study proves that role play develops student’s personal autonomy at each level of linguistic competence.

Hayati, Majid (2006) presents Role playing better than Problem solving because Role playing gives importance to logical reasoning and processes. According to the author Role play is very interesting and teachers should make benefits from this model.

According to Scullard, Sue (1986) Role play is very useful in developing speaking skills and communicative competencies in students.

Halleck, Gene’s (2007) study shows that Role play is very useful in the evaluation of non-native speakers oral language skill which is a natural method of teaching conducted in a tension free environment.

**3.2.13. Constructivist Approach**

Constructivism is an approach to teaching and learning based on the premise that cognition (learning) is the result of "mental construction." According to this theory, students learn by joining new information together with what they already know. Constructivists believe that learning is affected by the context in which an idea is taught as well as by students' beliefs and attitudes.

Guthric et.al (2004) compared three instructional methods for third-grade reading: a traditional approach, a strategies instruction only approach, an approach with strategies instruction and constructivist motivation techniques including student choices, collaboration, and hands-on activities. The constructivist approach, called CQRI (Concept Oriented Reading Instruction), resulted in better student reading comprehension, cognitive strategies and motivation.

Dogru and Kalender (2007) compared science classrooms using traditional teacher-centred approaches to those using student- centred, constructivist methods. In their initial test of student performance immediately following the lessons, they found no significant difference between traditional and constructivist methods. However, in the follow-up assessment 15 days later, students who learned through constructivist methods showed better retention of knowledge than those who learned through traditional methods.
3.2.14. Metacognition

Metacognitive strategies are designed to monitor cognitive progress. Metacognitive strategies are ordered processes used to control one's own cognitive activities and to ensure that a cognitive goal has been met. A person with good metacognitive skills and awareness uses these processes to oversee his own learning process, plan and monitor ongoing cognitive activities, and to compare cognitive outcomes with internal or external standards. Flavell (1979) indicated that a single strategy can be invoked for either cognitive or metacognitive purposes and to move toward goals in the cognitive or metacognitive domains. He gave the example of asking oneself questions at the end of a learning unit with the aim of improving knowledge of the content, or to monitor comprehension and assessment of the new knowledge.

Shamir, Adina; Mevarech, Zemira R.; GidaCarmit’s (2009) study investigated the effectiveness of assessing young children's meta-cognition in different contexts (i.e., individual learning (IL), peer assisted learning (PAL) and self-reports). Additionally, the contributions of declarative and procedural meta-cognition in IL and PAL, TOM and language ability on children's cognitive performance were examined. Sixty-four 4-5-year-old children (M = 5.14; SD = 0.72), randomly selected from two Israeli kindergartens, participated in the study. Children were first asked in an individualized setting to recall a series of nine pictures; they were then asked (self-report) to tell the interviewer how they tried to recall the pictures. Finally, they were asked to assist a peer in recalling the pictures in a PAL situation. All the children's verbal and non-verbal behaviours were coded and analysed. In addition, the children's language ability and Theory of Mind (TOM) were assessed. The findings indicated significant differences between children's declarative (self-report) and procedural meta-cognitive behaviour in IL and PAL. Procedural meta-cognition in PAL and TOM predicted cognitive performance even when procedural meta-cognition in IL, declarative meta-cognition and language ability were controlled for.
3.2.15. Problem based learning

Problem-based learning (PBL) is a total approach to education. PBL is both a curriculum and a process. The curriculum consists of carefully selected and designed problems that demand from the learner acquisition of critical knowledge, problem solving proficiency, self-directed learning strategies, and team participation skills. The process replicates the commonly used systemic approach to resolving problems or meeting challenges that are encountered in life and career.

Maxwell and Margendollar (2005) in their study examined the potential differences between Problem based learning and traditional instructional approaches in building knowledge of macro-economic concepts and principles in high school students. They found strong evidence of an instructional interaction with teachers such that for some teachers student’s learning of macro-Economics increased using problem based learning but, for others, learning increased using more traditional instructional methods. Still other teachers saw no significant difference in learning under the two instructional strategies. The results suggest that problem based learning can improve students learning if instructors who are well trained in both problem based learning technique and economics – implement it.

West (1992) has strongly argued for including problem solving as a teaching strategy as it influences the thinking faculty of individuals to a remarkable extent, much more than the information one receives from reading or simply listening.

Second language researchers have found supportive evidences to the fact that problem solving strategy has helped learners to reflect on their own understanding of an issue, in generating appropriate vocabulary, syntactic structures suitable to generate a solution to the given problem in context (Andrusyszyan and Daive, 1997; Barrow, 1998).

Problem solving as a reflective teaching strategy engages students through authentic learning activities that are professional problems of practice as starting point, stimulus, and focus for learning. (Barrows, 1986). In one of the quasi experimental studies they mention how problem-based learning not only emphasizes the learning of the subject area but also provides opportunities for students to practice and apply skills and knowledge acquired. In the study it
was found that problem solving played a positive role in enhancing student’s computational skills.

3.2.16. Multimedia Learning

Multimedia learning is a form of learning supported by different sources of information (e.g., text and graphics) being handled jointly in order to understand and memorize a given content. It is the combination of various digital media types such as text, images, audio and video, into an integrated multi-sensory interactive application or presentation to convey information to an audience. Traditional educational approaches have resulted in a mismatch between what is taught to the students and what is actually needed. As such, many institutions are moving towards problem based learning as a solution to producing graduates who are creative; think critically and analytically, to solve problems. Multimedia technology as an innovative teaching and learning strategy in a problem-based learning environment by giving the students a multimedia projects to train them in this skill set.

3.2.18. Peer Assisted Learning

Peer Assisted Learning is the acquisition of knowledge and skill through active helping and supporting among status equals. Peer tutoring, as a specific form of peer-assisted learning, is a collaborative approach in which pairs of pupils interact to assist each other’s academic achievement, with one pupil adopting the role of tutor and the other the role of the tutee. Reciprocal peer tutoring "employs same-age student pairs of comparable ability with the primary objective of keeping both peer student and peer teacher engaged in constructive academic activity.

Parkinson, Michael (2009) carried out a carefully controlled study of the effects of peer-assisted learning by second year students with first year students. Prior to tutoring, the tutored and non-tutored groups were very evenly matched. However, after one semester of tutoring there were substantial and significant differences between the tutored and non-tutored students. The tutored students progressively increased their performance at in-house tests in calculus compared to the untutored students, their examination marks in chemistry and calculus substantially improved (greater than 13%) and failure rates were cut dramatically. Student progression was substantially improved.
Higgins (1982) investigated the effects of peer-tutoring and independent study on increasing the spelling performance of eight adolescents in a self-contained class for students with learning disabilities. Significant increase in spelling performance was found during treatment when retention was measured.

Benedict (1998) argues that ‘small group’ teaching strategies can help solving some of the present day classroom problems. To him peer tutoring ensures active participation of students, face to face contact and purposeful activity. He puts forth two reasons to vindicate himself (1) social and (2) educational. It provides a social ecology which prompt learner’s crucial social context with peer teachers. The development of such social and ethical values is very determinants of the overall educational objectives. He also presents some modes of small group teaching techniques.

3.2.18. Teaching through music

Many studies have shown that music improves concentration, improves memory, brings a sense of community to a group, motivates learning, relaxes people who are overwhelmed or stressed, makes learning fun and helps learners absorb learning material easily. Teachers can learn to design lessons around popular music in the target language. Each song should have one primary and several secondary vocabulary themes appropriate to particular level.

The purpose of Seeman, Elissa’s (2008) study was to examine the short-term effects of a music education intervention on the receptive language skills of students in an at-risk early childhood programme. The target population selected was nine students ages 3, 4, and 5 in an at-risk, inclusive classroom in a Chicago public school. The problem of language delay is indicated in the targeted students’ preliminary evaluative data of receptive language skills as measured using the Peabody picture vocabulary test and Teacher rating of Oral language and literacy assessments. As a result of teaching music skills as recommended in ISBE learning standards, the targeted early childhood students improved their receptive language skills. Results indicate that after 2 months of intervention the average student age equivalent increased 21.18% in receptive language and 34.67% in phonemic awareness. Unexpected outcomes included transfer of knowledge to the classroom and home environment, increase
in musical identity and self-esteem and continued practice of music activities in the classroom following the intervention. Educators may implement such music activities to increase receptive language skills in an at-risk pre-school population.

The purpose of Lee, Ling Yu Liza’s (2009) study is to teach urban young children music concepts and English by composing creative music and songs with contrast elements. The subjects were seven urban young children aged from three to four in a Taiwan kindergarten. The duration was twenty-four weeks, with two sessions per week. The teaching contents included Hello Song, Musical Movement, Music Appreciation and Goodbye Song. The study applied the thematic music elements to the teaching content. The main methodology was a qualitative study and quantitative data used to receive objective support. Assessment included a pre-test at the beginning, a post-test and participation observation at the end of the study. The results show that through the use of creative music pieces of contrast and song activities, urban young children’s understanding of music concepts was progressive and English ability was improved. The study findings are: (1) Using contrastive music pieces is a good method for teaching very young urban children to understand music concepts; (2) Creating simple target objective songs with contrast elements is a good way for urban young children to learn simple English; (3) music with contrastive elements could motivate urban young children to do movement spontaneously and learn the spoken language simultaneously; and (4) Contrastive music could be used for pre-classical learning.

Dosseville, Fabrice; Laborde, Sylvain; Nicolas (2012) investigated the influence of music on the academic performance of undergraduate students, and more particularly the influence of affects induced by it. The sample consisted of 249 students, divided into a control group and an experimental group. Both groups attended the same videotaped lecture, with the addition of classical music for the experimental group. Just after the lecture, both groups had to fill out a multiple choice questionnaire (MCQ) aimed to assess their learning during the lecture. The MCQ score of the experimental group was significantly higher than that of the control group. Affect just before the exam predicted significantly the MCQ-score, however inclusion of music accounted for an additional part of variance. The study proves that music has the capacity to influence the academic performance of learners.
It has been suggested by researchers that music can be used to aid students in their learning and memory. Employing the theoretical framework of brain-based learning, the purpose of Smolinski, Keith (2010) was to examine the impact of original, science-based music on student content learning and student perceptions of the music and its impact on learning. Students in the treatment group at a public middle school learned songs with lyrics related to the content of a 4-week cells unit in science; whereas an equally sized control group was taught the same material using existing methods. The content retention and learning experiences of the students in the study were examined using a concurrent triangulation, mixed methods study. Independent sample ‘t’ test and ANOVA analysis were employed to determine that the science post-test score of students in the treatment group (N= 93) were significantly higher than the post-test scores of students in the control group (N= 93), and that the relative gains of the boys in the experimental group exceeded those of the girls. The result of the study shows that the majority of the students thought the music served as an effective learning tool and enhance recall. This study has capacity to change the view of educational practitioners, because teachers gained insight into how music can be used in science classrooms to aid the teaching-learning process.

3.2.19. Teaching through Humour

Humour is an excellent teaching tool because, in addition to preventing classroom boredom and monotony, it introduces lateral aspects of language such as irony, sarcasm, mockery, elision, ellipsis, and euphemism. Humour in language can be approached interactively or structurally through a variety of activities. It can be used to expand vocabulary, encourage discussion, examine meaningless words and expressions, introduce double-sense words and expressions, investigate ways of expressing ideas and their implicit intentions, develop syntax and grammar, provide cultural information, and teach phonic skills. Cartoons (provided by the teacher or produced by the students), jokes, headlines, advertising, quotations with mistakes, and even classroom humour provide opportunities for language learning. Teachers can file these materials in a variety of ways to maximize their usefulness.

The use of humour in the mathematics classroom has been advocated by many as an example of good practice in teaching-learning process. Warwick, John (2009) reports the results of a n
experiment designed to investigate whether first-year undergraduate students studying computing have a common appreciation of humour, and whether this appreciation can be linked to performance in mathematical modules. A diversity of opinion is indicated as to what constitutes humour among the students and two grouping of students are identified which seem to be distinctive in terms of tastes in humour, age and mathematical performance. Fleming, Gerald’s (1966) article on humour examines the role of humour in the language class. The study concludes that humour, meeting the highest standards, both textual and pictorial acts as an important motivational technique, as it arouses learner’s interest and helps in establishing a relaxed classroom atmosphere.

In the article named ‘Reducing stress in the foreign language classroom’ Maceri, Domenico (1995) discusses techniques for teaching descriptive adjectives in second language classrooms that rely on humour to help relieve the stress of learning situations. Specific examples of adjectives and humorous phrases are also provided.

3.2.21. Teaching using advertisements
Advertisements have a high value in teaching and learning, since they could provide rich learning experiences in the classroom. In advertisements, students have been exposed to their daily life and this makes it easier for them to think, speak and write when responding to the advertisements. Since there are no limit for advertisement topics, characters, situations and style, it is easy for teachers to find the sources for teaching materials. Advertisements are useful to elicit student responses. It could be effectively utilized as a tool to articulate students’ thinking skills. They are very useful to understand the culture of the target language community. Advertisements are also very useful in developing vocabulary and in the natural acquisition of grammar rules. It is suggested that print advertisements are particularly well suited for second language instruction because they are attractive, entertaining and contains emotional or factual messages.

According to AlmLequeux, Antonie (2004), television advertisements can increase students’ awareness of cognitive and affective learning process and thereby help them to build effective strategies for vocabulary learning.

Mollica, Anthony’s study (1978), shows that large number of exercises could be given for students in the second language classroom. The exercises include reading comprehension,
vocabulary, translations and reinforcement activities. Examples are given in English, French and Italian.

3.3. Constraints to modernization of teaching

P. Singh (1998) found that quite a few teachers are passionately committed to teaching, while majority of them are merely technicians who view teaching as an easy way to make living by influencing lectures on a captive audience. She offers a few sign posts which can be useful for most of the teachers to become passionately committed. They are: 1. Developing self-esteem – The teachers with higher self-esteem are more flexible in their thinking, more willing to learn and more effective. 2. Being interesting and interested. 3. Most of the teachers who inspire their students have the knack of making education entertaining and entertainment education.

Due to recent development, many schools are seeking to increase the level of parental participation with in school. Ramierz (1999) conducted a study on the inducement of parents in school activities. The results suggest that increasing parental involvement would benefit the school. The study also suggests that teachers may be unaware of school practices that increase the levels of parental involvement and increase levels of student achievement. Due to the illiteracy of the family, children do not get any academic support, proper guidance or encouragements, parents are too busy with economic and domestic problems to take any interesting the performance of their children at school.

Kaul (1990) in a sample study of library and their utilization found the school libraries generally functioning in a single room accommodation locking proper stocking of books and display of journals, magazines, newspapers and other materials. The other information facilities found lacking included catalogues, cabinets, dictionary stands, book racks and working tables in addition to the absence of professionally qualified librarians and poor library allocations.

Darling (1997) found that professional development plays an important role in student achievement. A number of studies suggest that the typical problems of beginning teachers are lessened for those who have had adequate preparation prior to entry.

Conley, Bacharach, and Bauer (1989) indicate that the major dis-satisfiers for elementary teachers were role ambiguity, student behaviour problems, routinized work and large class
size. For secondary teachers, role ambiguity and negative supervising behaviour are problems. Bureaucratisation of teaching encourages routinized work a dis-satisfier of teaching.

Copeland (1997) planned to identify barriers to computer supported instruction. The study found that students did not enjoy equal access to computers and computer assisted instruction and that a combination of socio-eco factors had the greatest impact on this issue of equity. Ethnic background proved not to be a significant factor. Significant gender barriers could be only weakly supported through the data analysis.

The study “Contrasting Technology Integration and Traditional Methodology in Adult ESL Instruction” conducted by Kinser and Jeong-Lan (2006) found that the usage of technology in adult ESL class rooms needs to be examined as it is creating new opportunities and challenges. The purpose of the study was to explore how technology was being used in such environment and what factors contributed as constraints to technology use. Interviews, questionnaires, and observations were used to collect data in two schools. Participant groups included administer, teachers and students. Results of the qualitative analysis indicated that most respondents were universally familiar with using technology, but professional development seemed to be needed for teachers to feel comfortable applying their interests and knowledge about using technology into the curriculum. Administrators’ support was identified an important factor in teacher and student use of technology in their schools their role in terms of funding and training was instrumental. Time appeared as an issue in technology integration: all participants wanted more. Teachers’ attitude and teaching approaches affected their integration of technology in to the curriculum.

Bennett and Kottasz’s (2001) study shows that ‘technophobia’ has negative influence on attitude towards IT- based teaching methods. Computer technophobia among teachers might equally cause them to avoid IT- lead instructional techniques. According to Morgan (2000), technophobia in the academic world is associated with lower expectations, poorer task performance, greater anxiety and debilitating thoughts. It is pertinent to inquire, therefore, whether teachers who fear technology avoid learning about teaching methods with a technological dimension. Rear in general, not just fear of new technology, might also inhibit the acceptance of the latest instructional techniques and not just related to IT.
Forsyth (1996) identified fear of change and fear of not possessing the skills and knowledge to cope with new methods as causes of university lecturer’s resistance in adopting new approaches to teaching.

Smith (1992) in his study concluded that lecturers might be unlikely to invest time and energy in acquiring new teaching skills if their employing institutions would not recognise and reward such investments. Chase (1998), similarly, found that the take of new methods in 80% of a sample was adversely affected by factors connect with negative organizational culture.

Hare and M.C report (1996) report of their experiences of delivering eight workshops to identify the key factors that enabled 88 university academicians to become confident in using IT for their teaching activities concluded that senior’s support and the provision of adequate resources were essential.

Spring (1989) revealed from his study that teachers’ responsibility is to maintain their knowledge and skills in order to provide the best education possible. If teaching circumstances are repressive and teachers struggle for survival-facing large classes, a poor working environment, masses of paper work, unsafe conditions-it will be difficult for them to focus on the needs of students.

BlaikHourani, Rida’s (2011) study shows that even though the United Arab Emirates (UAE) is developing its Social Studies curriculum and pedagogy for public schools. Teaching Social Studies in the UAE is still based on the traditional way of teaching; rote memorization is the means of acquiring knowledge. In order to enhance Social Studies constructivist teaching-learning, there is a need to shed the light on the current obstacles that teachers are experiencing in terms of curriculum organization. This case study probes the areas of development needed in Social Studies as a school subject. The study is significant in terms of (a) what current Social Studies teachers need to say as far as the constraints they are facing, and (b) what alterations Abu Dhabi Education Zone and Abu Dhabi Education Council need to introduce on the following levels: curriculum, pedagogy, and assessment. The study concludes that the roots of the constraints were administrative and this is worth further investigation, since administrative reformation and restructuring goes hand-in-hand with
re designing and developing a constructivist pedagogy and curriculum.

China has been promoting student-centred education under the current curriculum reform. However, teachers in rural schools continue to exercise tight control of the classroom, with lecturing taking up most of the class time. Drawing on ethnographic observation and interviews in a rural elementary school, Wang, Dan’s (2000) study analyses the rationale of rural teachers in strategizing teaching methods. It has found that teachers' pedagogical choices are heavily constrained by both the centralized curriculum and schedule and the social context of rural-urban disparities. Together these constraints create a dilemma of time that significantly limits the room for teachers to experiment with student-centred methods.

Chen, Zan; goh, Christine (2011) investigates difficulties that teachers encounter in teaching oral English in higher education in the English as a foreign language (EFL) context. Open-ended question surveys and semi-structured interviews were used to elicit data. There were 331 EFL teachers from 44 universities in 22 cities across China that responded to the survey questions. Thirty teachers were interviewed. The findings showed that apart from external constraints such as large class sizes and a lack of teaching resources, EFL teachers are frustrated by their low self-efficacy with regard to oral English proficiency and inadequate pedagogical knowledge. Most teachers expressed eagerness to receive training in how to design and implement effective tasks to motivate students' engagement in oral English activities.

Keiser, Jane M.; Lambdin, Diana V (1996) examined time issues raised by sixth-and seventh-grade teachers field testing a National Science Foundation-sponsored investigation-centred mathematics curriculum for middle grades students. Teacher surveys indicated numerous time issues associated with teaching in the spirit of the current mathematics education reform movement and the need for flexibility in scheduling.

Lee, Jackie Fung-King’s (2009) study attempts to answer the questions how do Chinese mainland teachers perceive ELT and whether they ready for the paradigm shift. The study includes a questionnaire survey with 214 primary English language teachers from Guangdong and observation of two demonstration lessons of local teachers. The findings reveal that
although many teachers had a heightened awareness of the importance of using the learner-centred approach to enhance students’ communicative competence, their teaching was still directed by textbooks, with authentic teaching materials seldom being used. The study identifies some issues that the education authorities in China need to address in order to implement curriculum reform successfully.

3.4 Other Related Studies

3.4.1 Studies related to in-service training

In-service courses for teachers increase the skills and knowledge of teachers in an area. The need to continuously improve professionally is necessary for language teachers in order to respond to a wide range of demands as a result of this rapid and ever changing world. Teachers also need to keep abreast of societal demands that are placing in schools. Educational research continues to reveal new insights about teaching and learning which teachers need to incorporate in their practice. Teachers should also be trained to benefit the developments in Information and Communication Technology (ICT) and its potential to improve the quality in language teaching and learning. The need to continuously developing professionally is important for teachers. Because of the importance this aspect in educational field, studies related to in-service training is worth mentioning.

Sheshadri (1994) found that the common problems in relation to schools are those pertaining to enrolment, participation and learning achievement of children, low status of the school, inadequacy of professional training, etc. He also reported that teachers need more training and continuing education support to enhance their quality and competence.

Asayesh (1993) made a study on staff development for improving student outcomes. His study revealed that effective staff development programmes that have resulted in improved student outcomes, agreeing that staff development is an important ingredient in the elusive formula of success.

Shukla (1988) opined that in-service teachers training has promising significance and through it
a) The teachers whose initial training offered through pre-service teachers training course has failed to provide with the confidence that they require, can be benefited by increasing their confidence level.

b) The older teachers who have reached the stage at which they feel that their earlier training has become out of date and ill-adapted to present changed conditions and who need to refresh their knowledge and to refresh their skills, can be profited to achieve their objective.

c) The weaker teachers seeking help for coping with their assigned responsibilities can improve themselves.

Buch (1968) suggests that if schools are to improve, the only programme that can steer such an improvement is a well-planned programme of in-service education through competent teacher educators on the one hand, and enlightened administration on the other. According to him, the teacher training institutions should accept their responsibilities for assisting the in-service stage of teacher training. According to Buch the following are some major assumptions on which in-service education is based:

1. It is impossible to conceive of pupil growth without teacher growth. The teaching profession cannot become or remain vital, dynamic, adjusting entity without the pupil involved expanding both their understanding and their effectiveness.

2. The maximum teacher growth is co-related with effective teacher growth.

3. All attempts to improve education through the provision of better facilities, better programmes and better teaching aids can prove effective only if the teacher is kept professionally alert and academically sound.

4. Pre-service programme does not and can fully prepare a person to function adequately as a teacher.

Doherty (1998) analysed the perceptions of teachers regarding the effectiveness of the professional development opportunities which are currently being provided to teachers in the school-to-career programmes in Boston. He found that although offer a generally positive assessment of their professional development opportunities, they also raise several concerns,
express a variety of needs and identify a large number of obstacles regarding school to career and professional development.

Gorden and Partington (1996) regard staff development as an essential rather than a desirable objective, an obligation rather than an option—both a professional expectation and duty and responsibility that institutions have for their staff.

William, Ponnambala and Anandan (2000) found that teacher effectiveness and organisational climate are interrelated. It was found that in schools having controlled climate, efficiency of the teachers was low. At the same time the efficiency of the teacher was average and above average in climate which was autonomous.

Satpathi (1980) found that the teachers who perceived less disengagement, less aloofness and less hindrance in organisational climate were found to be more competent.

Mishra, Pandit and Hindolia (1993) strongly felt the usefulness of appraisal of students, peers and supervisors for the performance of teachers.

3.4.2. Studies related to administrative support

Administrative support is of much importance as far as the teaching of Hindi is concerned. The head of the institution can accelerate the process of modernization of different subjects by providing text books and handbooks in time and by encouraging teachers to participate in workshops and seminars.

Caine (1998) examined the perceived influence of the principal on the professional growth of teachers from the perspectives of selected teachers and principals. His findings were:

1) The Principals have an influence on the professional development of the staff.

2) Teachers need to be involved in the decision-making process. Meaningful professional development occurred in schools in which teachers were actively involved in the planning.

3) Continuous professional development is achieved when teachers engaged in frequent talk about teaching.


3.4.3. Studies related to supervision

Supervision plays a vital role in the modernization process of all school subjects. Through supervision, the strengths and weaknesses of the teacher could be identified. The supervising persons can also provide concrete suggestions regarding the implementation of innovative teaching methods, strategies and approaches, which will be beneficial for the teacher concerned.

In the existing system of education, supervisory personals are not in a position to check schools, because they do not have powers to take any action against defaulters. So P.C. Sharma (1992) has rightly mentioned that supervisor is the most suitable measure for critical and creative evaluation and is most appropriate technique of improving the performance of teachers. He reported that without strict supervision along the well-defined measures, teachers’ performance couldn’t be improved.

Sharma and Sharma (1996) reported that the supervision arrangement of the secondary school is not adequate. The inspectors get little time for supervision. They should try to solve the difficulties of the teachers in classroom situation and elsewhere.

Mishra, Pandit, and Hindolia (1993) strongly felt that the usefulness of appraisal by students, peers and supervisors for the performance of teachers.

Armstrong (1999) analysed the teacher’s perceptions of the professional education personality evaluation programme of Alabama and found that teachers want to be evaluated, but in a non-threatening way. Furthermore, the assigning of scores causes stress.

Cluster and Fox (1967) summarised a number of studies on teacher peer support and its relation to the educational modernization. They write: ‘work in a situation where one feels respected by peers and supervisors is obviously more satisfying and fulfilling than work where one feels ignored; furthermore it predisposes on to be positive and supportive to
others’. Thus such a situation fosters a continuing cycle of change and support, invention and sharing of ideas.

A good number of the studies included in this chapter show the importance of modern instructional strategies. These studies reveal that traditional teaching methods and strategies should pave the way to modern instructional strategies, in order to modernize the teaching of different subjects. The studies also reveal facilitating and constraining factors to the modernization of teaching various subjects.

The study enables the investigator to make a comprehensive analysis of the varied studies conducted in the thrust area. It throws light into the innovative dimensions of the area of research. It enabled the investigator to get an outline of the task to be confronted, and gather schematic framework of the theory building and formulation of the designated task structure in the thrust area.