Chapter V

Summary & Conclusions...
CHAPTER V

SUMMARY AND CONCLUSIONS

INTRODUCTION

In the preceding chapters, introduction to the problem, development of the tools, methods of the study and interpretation of the results were discussed. The present chapter has been devoted to the summary of the results. For providing the background of the findings, a brief description of the purpose, design and procedure, along with the conclusions and suggestions for further research have been presented in the following paragraphs.

Even as our country enters a new millennium, its education system continues to run much as it did at the beginning of the last century. This is a sobering reality for the children of the Information Age. One of the greatest challenges and opportunities of the 21st century will be for schools at all levels to focus more on assisting students to become motivated in order that they can succeed in school. We need to embrace a recognition that all children can perform at higher levels of achievement than they do today; that children vary greatly in their readiness to learn, in what they need and want to learn, and in the ways they learn best; and that schools must increasingly customize instruction, thereby enabling each child to learn to the best of his or her ability. We need to provide many opportunities for children to experience success. Children must be encouraged to perceive themselves as good learners, to set high standards, believe in themselves, and to adopt learning strategies to help them overcome difficulties. It is important that successful opportunities are provided for all students. Educators must also look at what factors students attribute to their success or failure. Success enhances a child’s belief in himself/herself. This success leads to a child accepting responsibility for success.

And, for all this to become a reality, school systems must recognize that traditional methods of teaching and learning are unsuccessful for many students. They need to evaluate and adapt alternatives like Mastery Learning to fulfill the promises they make and to discharge the duties they undertake. Mastery Learning is a powerful new approach that starts from two basic assumptions:

- Virtually all students can learn all important academic content to a level of excellence.
- The primary function of schools is to define learning objectives, and to help all students to achieve them.

These assumptions imply that an effective teacher or school system will not produce a bell-shaped curve of student learning, with a few good students, many mediocre ones, and a substantial proportion of failures. Instead, the measure of effectiveness of teachers,
The two basic approaches to Mastery Learning are:

- **Group-Paced Instruction**: It basically means trying to move the whole class through a body of content together. The overall objective will be for the class to master content together.

- **Individual-Paced Instruction**: It means that all students are taught in one style (usually through a programmed or highly structured set of materials). Most importantly, they are allowed to proceed at their own rates.

However, some mixed models have been tried by various researchers. One such approach based on these two prototypes, is Eclectic Mastery Learning Strategy. It combines the best features of both the strategies and thus attempts to overcome the disadvantages of both.

In order to ensure mastery for all students, the Entry Behaviour component needs to be given its due importance. Unless we know the status of the learner, with which he/she enters into an instructional sequence, we cannot ensure what he/she leaves it with. Entry Behaviour is thus an important pillar on which instructional sequence is designed. Entry Behaviour can be classified into two categories.

- First, there are affective entry characteristics, or how the student feels about him or herself as a learner, about the particular subject being taught, and about school in general, what competencies he possesses, his interest, attitudes, beliefs etc. In addition to Prerequisite Skills, the Entry Behaviour of a student, for a language class has Language Background of the student as one of the most important components. So, aspects like Language Background and Parent-Child Interaction cannot be ignored. The affective entry characteristics interact with the learning environment and are influenced by the same.

- Second, there are cognitive entry behaviors, which means the student's degree of preparation in the particular subject being taught. This does not mean generalized intelligence or general school preparation, rather it includes those concepts and rules which the learner must have acquired before entering into instructional programme and which will be necessary for learning through new instructions.
The effectiveness of the learning environment is measured in terms of Self-efficacy and achievement. Past experiences of success or failure have important and long lasting effects on a child’s perceptions and beliefs of their abilities and their future expectations in many achievement settings. One important consequence of successful Mastery learning is students’ obtaining a greater sense of Self-efficacy concerning their in-school, as well as their out-of-school behavior. Self-efficacy, as defined by Bandura (1977), points to the student’s self-perception that he has the basic skills to succeed in life. The greater his sense of self efficacy, the less vulnerable and distressed the individual feels in light of his perceived ability to cope with stress.

The research literature reveals that the mastery experiences are important source of Self-efficacy and have indicated promising implication for the self-enhancement, self-beliefs and academic achievement in schools. It was this idea with which the investigator designed the present investigation.

**STATEMENT OF THE PROBLEM**

**EFFECT OF MASTERY LEARNING STRATEGIES ON ACHIEVEMENT AND SELF-EFFICACY IN ENGLISH IN RELATION TO ENTRY BEHAVIOUR**

**DELIMITATIONS**

The present study was delimited with respect to the following:

- The present study undertook three Mastery Learning strategies viz. Bloom’s Mastery Learning Strategy (BMLS), Keller’s Personalized System of Instruction (KPSI) and a modified Eclectic Mastery Learning Strategy based on the above two Mastery Learning Strategies, developed by the investigator.
- The impact of learning strategies was studied on Achievement in English and English Self-efficacy only.
- For classification of students into different levels of Entry Behaviour, only two aspects of Entry Behaviour were considered viz.
  - Learner’s English Language Background (based on language environment at home & school and Parent-Child Interaction) and Prerequisite Skills.
- The study was confined to students of class IX in English from English medium senior secondary schools affiliated to CBSE and located in Chandigarh and Panchkula.
OBJECTIVES

The study was designed to attain the following objectives:

- To study differences among grade IX students with regard to their Entry Behaviour status for cumulative score on English Language Background, Parent-Child Interaction and Prerequisite Skills.
- To investigate the differences, among students with regard to various individual dimensions of Entry Behaviour viz.
  - English Language Background
  - Parent-Child Interaction and
  - Prerequisite Skills
- To investigate the differences, if any, among students on Criterion Test (Pre-Test).
- To study the effect of Mastery Learning Strategies in comparison to Conventional Group Learning on achievement in English.
- To study the effect of various levels of Entry Behaviour of students on achievement in English.
- To study the interaction effects of instructional strategies and Entry Behaviour levels on achievement in English.
- To examine the relative effect of Mastery Learning Strategies on Self-efficacy of IX graders.
- To study the effect of different levels of Entry Behaviour of IX graders on Self-efficacy.
- To study the interaction effects of instructional strategies and Entry Behaviour levels on Self-efficacy.
- To study effect sizes due to various Mastery Learning Strategies.
The following hypotheses were formulated and tested:

Ho.1: Children with Adequate Entry Behaviour will not score different on Entry Behaviour Tests as compared to their counterparts of Average and Inadequate Entry Behaviour groups.
   Ho.1.1: Adequate Entry Behaviour Group is not superior to Average Entry Behaviour Group.
   Ho.1.2: Adequate Entry Behaviour Group is not superior to Inadequate Entry Behaviour Group.
   Ho.1.3: Average Entry Behaviour Group is not superior to Inadequate Entry Behaviour Group.

Ho.2: Children with different levels of Entry Behaviour will not score different on English Language Background Questionnaire.
   Ho.2.1: High English Language Background Group is not superior to Average English Language Background Group.
   Ho.2.2: High English Language Background Group is not superior to Low English Language Background Group.
   Ho.2.3: Average English Language Background Group is not superior to Low English Language Background Group.

Ho.3: Children with different levels of Entry Behaviour will not score different on Parent-Child Interaction Scale.
   Ho.3.1: High Parent-Child Interaction Group is not superior to Average Parent-Child Interaction Group.
   Ho.3.2: High Parent-Child Interaction Group is not superior to Low Parent-Child Interaction Group.
   Ho.3.3: Average Parent-Child Interaction Group is not superior to Low Parent-Child Interaction Group.

Ho.4: Children with different levels of Entry Behaviour will not score different on Prerequisite Skills Test.
   Ho.4.1: Adequate Prerequisite Skills Group is not superior to Average Prerequisite Skills Group.
   Ho.4.2: Adequate Prerequisite Skills Group is not superior to Inadequate Prerequisite Skills Group.
   Ho.4.3: Average Prerequisite Skills Group is not superior to Inadequate Prerequisite Skills Group.
Ho 5: Children with different levels of Entry Behaviour will not score different on Pre-Test of Criterion Test.
   Ho.5.1: High Pre-Test (Criterion Test) Score Group is not superior to Average Pre-Test (Criterion Test) Score Group.
   Ho.5.2: High Pre-Test (Criterion Test) Score Group is not superior to Low Pre-Test (Criterion Test) Score Group.
   Ho.5.3: Average Pre-Test (Criterion Test) Score Group is not superior to Low Pre-Test (Criterion Test) Score Group.

Ho.6: The different instructional strategies yield equal levels of learning outcomes as measured by achievement gain scores.
   Ho.6.1: BMLS and KPSI yield comparable achievement scores.
   Ho.6.2: BMLS and EMLS yield comparable achievement scores.
   Ho.6.3: BMLS and CGL yield comparable achievement scores.
   Ho.6.4: KPSI and EMLS yield comparable achievement scores.
   Ho.6.5: KPSI and CGL yield comparable achievement scores.
   Ho.6.6: EMLS and CGL yield comparable achievement scores.

Ho.7: The different levels of Entry Behaviour result into equal level of learning outcomes as measured by Achievement Gain Scores.
   Ho.7.1: Adequate and Average levels of Entry Behaviour result into equal level of learning outcomes as measured by Achievement Gain Scores.
   Ho.7.2: Adequate and Inadequate levels of Entry Behaviour result into equal level of learning outcomes as measured by Achievement Gain Scores.
   Ho.7.3: Average and Inadequate levels of Entry Behaviour result into equal level of learning outcomes as measured by Achievement Gain Scores.

Ho.8: The effect of levels of Entry Behaviour does not qualify the Achievement Gain Scores through the four instructional strategies.
   Ho.8.1: BMLS exhibits comparable achievement scores on three levels of Entry Behaviour.
   Ho.8.2: KPSI exhibits comparable achievement scores on three levels of Entry Behaviour.
   Ho.8.3: EMLS exhibits comparable achievement scores on three levels of Entry Behaviour.
   Ho.8.4: CGL exhibits comparable achievement scores on three levels of Entry Behaviour.
   Ho.8.5: The four instructional strategies result in equal achievement scores on Adequate Level of Entry Behaviour.
   Ho.8.6: The four instructional strategies result in equal achievement scores on Average Level of Entry Behaviour.
   Ho.8.7: The four instructional strategies result in equal achievement scores on Inadequate Level of Entry Behaviour.
Ho.9: The different instructional strategies yield equal levels of learning outcomes as measured by Self-efficacy gain scores.

- Ho.9.1: BMLS and KPSI yield comparable Self-efficacy scores.
- Ho.9.2: BMLS and EMLS yield comparable Self-efficacy scores.
- Ho.9.3: BMLS and CGL yield comparable Self-efficacy scores.
- Ho.9.4: KPSI and EMLS yield comparable Self-efficacy scores.
- Ho.9.5: KPSI and CGL yield comparable Self-efficacy scores.
- Ho.9.6: EMLS and CGL yield comparable Self-efficacy scores.

Ho.10: The different levels of Entry Behaviour result into equal level of learning outcomes as measured by Self-efficacy Gain Scores.

- Ho.10.1: Adequate and Average levels of Entry Behaviour result into equal level of learning outcomes as measured by Self-efficacy Gain Scores.
- Ho.10.2: Adequate and Inadequate levels of Entry Behaviour result into equal level of learning outcomes as measured by Self-efficacy Gain Scores.
- Ho.10.3: Average and Inadequate levels of Entry Behaviour result into equal level of learning outcomes as measured by Self-efficacy Gain Scores.

Ho.11: The effect of levels of Entry Behaviour does not qualify the Self-efficacy Gain Scores through the four instructional strategies.

- Ho.11.1: BMLS exhibits comparable Self-efficacy scores on three levels of Entry Behaviour.
- Ho.11.2: KPSI exhibits comparable Self-efficacy scores on three levels of Entry Behaviour.
- Ho.11.3: EMLS exhibits comparable Self-efficacy scores on three levels of Entry Behaviour.
- Ho.11.4: CGL exhibits comparable Self-efficacy scores on three levels of Entry Behaviour.
- Ho.11.5: The four instructional strategies result in equal Self-efficacy scores on Adequate Level of Entry Behaviour.
- Ho.11.6: The four instructional strategies result in equal Self-efficacy scores on Average Level of Entry Behaviour.
- Ho.11.7: The four instructional strategies result in equal Self-efficacy scores on Inadequate Level of Entry Behaviour.

Ho.12: Different Mastery Learning Strategies yield different effect sizes.

- Ho.12.1: Different Mastery Learning Strategies yield different effect sizes on achievement.
- Ho.12.2: Different Mastery Learning Strategies yield different effect sizes on Self-efficacy.
METHOD OF STUDY

TOOLS USED

Factual material or data unknown or untapped so far is essential in every study. Relevant data, adequate in quantity and quality and also reliable and valid in every respect is a must. Thus, the selection of suitable instruments is of vital importance for successful research, especially in an experimental research study of present type.

Following tools were used for collecting data:

- **ENTRY BEHAVIOUR TEST**
  (Developed and validated by the investigator)

  It consisted of:
  - English Language Background Questionnaire
  - Parent-Child Interaction Scale

  Two versions of the scale were developed
  - **Students’ Version**
    (To be filled by students)
  - **Parents’ Version**
    (To be filled by parents)

  - **Prerequisite Skills Test**

- **ENGLISH SELF-EFFICACY SCALE**
  (Developed and validated by the investigator)

  It was a rating scale used for measuring Cognitive, Motivational, Affective and Selection dimensions of Self-efficacy in English.

- **INSTRUCTIONAL PACKAGES FOR MASTERY LEARNING**
  (Developed and validated by the investigator)

  These were based upon
  - Bloom’s Mastery Learning Strategy
  - Keller’s Personalized System of Instruction
  - Eclectic Mastery Learning Strategy
  - Material for Conventional Group Learning
    (Analysed by the investigator)

- **FORMATIVE TESTS**
  (Developed and validated by the investigator)

- **CRITERION TEST FOR SUMMATIVE EVALUATION**
  (Developed and validated by the investigator)

  Details of each one of the above tools have been discussed in Chapter II of the report. These tools have been given vide Appendices 2(i) to (vi).
SAMPLE

The research investigation was carried out on the students of class IX, of the age ranging between 13-15 years. The sample was selected from the representative co-education English medium senior secondary schools located in Chandigarh and Panchkula. At the initial stage 269 students were selected but 34 students dropped out at one or the other stage. Intact sections of Grade-IX were randomly selected for different experimental treatments. One group of students was selected as Control Group. The final Sample comprised of 235 students. For the final sample, 57 students were selected for Bloom’s Mastery Learning Strategy, 62 students were selected for Keller’s Personalized System of Instruction, 66 for Eclectic Mastery Learning Strategy and 50 students for Conventional Group Strategy.

DESIGN OF THE STUDY

The present study was designed to investigate into the effect of Mastery Learning strategies on achievement and self-efficacy in English in relation to Entry Behaviour. For the study two pre-test – post-test 4x3 factorial designs were employed. One 4x3 factorial design was employed for analysing achievement gain scores and another 4x3 factorial design was employed for analysing Self-efficacy gain scores. Achievement and Self-efficacy were the two dependent variables. Different strategies of Mastery Learning constituted one of the treatment variables. This variable was studied at four levels viz. Bloom’s Mastery learning Strategy, Keller’s Personalized System of Instruction, Eclectic Mastery learning as against a Control Group of Conventional Group Learning. Entry Behaviour, which was another independent variable, was used for categorizing students into three levels of Entry Behaviour viz. Adequate, Average and Inadequate. This second independent variable was studied at three levels.

PROCEDURE

Procedure of the experiment comprised of two main stages that are:

- Selecting the Sample
- Conducting the Experiment

SELECTING THE SAMPLE

The three tests on the selected aspects of Entry Behaviour i.e. English Language Background, Parent-Child Interaction and Prerequisite Skills Test were administered for the process of sample selection. The selected sample was allocated to different treatments.
CONDUCTING THE EXPERIMENT

The experiment was conducted in four phases as presented in the following paragraphs.

• Phase I Administration of the Entry Behaviour Test.
• Phase II Administration of the Pretest on English Self-efficacy Scale & Achievement Test.
• Phase III Implementing Instructional Programme.
• Phase IV Administration of Post test on English Self-efficacy Scale & Achievement test.

Phase I Administration of the Entry Behaviour Test

Before starting with the instructional programme, all the students were given the Entry Behaviour Test consisting of English Language Background Questionnaire, Parent-Child Interaction Scale, (comprising of two versions with one to be filled in by the student and the other by the parent) and a Prerequisite Skills test. The parents' version was got filled by approaching the parents' through students. On the basis of total scores on Entry Behaviour Test students were divided into three groups each for each strategy. These groups were of Adequate, Average and Inadequate Entry Behaviour.

Phase II Administration of the Pretest on English Self-Efficacy Scale & Achievement Test

English Self Efficacy Scale was administered to all the students of selected groups before starting the instructional programme. Separate answer sheets were provided. Students were given thirty minutes to mark their responses. Scoring was done to obtain the information regarding English Self Efficacy of the students before entering into the instructional programme.

Pre criterion test was administered to all the students of selected groups. Space for answers was provided with the questions. Three hours time was given to complete the tests. Scoring was done to obtain the information regarding pre-treatment knowledge of the students on the selected content.

Phase III Implementing Instructional Programme

The implementation of the instructional programme was carried out in light of Torshen’s Mastery Implementation Evaluation Model. Torshen's model was viewed in three phases viz.:

• Phase I Planning for Mastery
• Phase II Defining and Designing Mastery Learning Instructional Packages
• Phase III Implementing and Monitoring of Mastery Learning Instructional Packages
Orientation was provided to students before entering into the instructional programme. Since the students are not used to Mastery Learning approaches, they were told the purpose of the experimental treatment and what is expected of them as the final learning outcomes. The three groups i.e. Blooms Mastery Learning Strategy, Keller’s Personalized System of Instruction and Eclectic Mastery Learning Strategy were taught by the investigator. The fourth group viz. Control Group was taught by the regular English teacher in the Conventional Group Learning situation. It generally refers to reading out the chapter by the teacher. Solving exercise and providing notes for certain important questions. Lessons were provided to the regular English teacher by the investigator, so that there is no difference among groups on the amount of content taught to them (a copy of each lesson has been appended).

Phase IV Administration of Post-test on English Self-efficacy Scale & Achievement Test

*English Self-efficacy Scale*

English Self-efficacy Scale was administered to all the students of selected groups, after they had completed eleven units of the instructional programme. Separate answer sheet were provided. Students were given thirty minutes to mark their responses. Scoring was done to obtain the information regarding English Self-efficacy Scale of the students after completing the instructional programme.

*Criterion Test*

Criterion Test as Post-instructional Test was administered to all the students of the selected groups. Space for answers was provided with the questions. Three hours time was given to complete the test. Scoring was done to obtain the information regarding knowledge of the students on the criterion test after completion of the instructional programme. Students were thanked for their full Co-operation.

**THE STATISTICAL TECHNIQUES**

The data thus obtained were subjected to statistical analysis. The following statistical techniques were employed to analyze the data obtained from the experiment in order to test the hypotheses:

- Means and Standard Deviations were used wherever required.
- Graphical Analysis: presentations were done through Bar Graphs, Frequency Polygons & Pie diagrams.
- One way Analysis of Variance was used for analysis of cumulative scores on Entry Behaviour, its components, pretest scores on criterion test and English Self-efficacy Scale.
Two way analysis of variance was used for analysis of data pertaining to effect of Mastery Learning strategies on achievement and Self-efficacy gain scores in relation to Entry Behaviour.

Each significant F-ratio was followed by t-test.

Effect sizes were calculated according to Glass's technique of d-values (meta analysis technique) separately, to study the impact of instructional strategies on achievement and Self-efficacy scores.

**MAJOR FINDINGS**

In the light of the interpretation of the results of the present study, the following conclusions were drawn:

**ENTRY BEHAVIOUR SCORES**

**ENTRY BEHAVIOUR (CUMULATIVE SCORES)**

- The three groups of Entry Behaviour classified on the basis of cumulative Entry Behaviour scores were significantly different from each other.
  - Adequate Entry Behaviour Group was found superior to Average and Inadequate Entry Behaviour groups.
  - Average Entry Behaviour Group was found superior to Inadequate Entry Behaviour Group.

**ENGLISH LANGUAGE BACKGROUND SCORES**

- Children with different levels of Entry Behaviour scored different on English Language Background Questionnaire.
  - High English Language Background Group was superior to Average and Low English Language Background groups.
  - English Language Background of Average Group was superior to that of Low Group.

The profiles of students with High, Average and Low English Language Background groups depicted the following.

- The board of education under which children are studying seem to be different on prescriptions of English Language. Students of ICSE seemed to be better equipped with English language skills as compared to CBSE or other regional boards.
- Medium of instruction and medium of conversation and percentage of marks in the previous class and in present class may be considered to have some contribution in English Language Background of students.
• Not only these school related variables affect language skills of students but some home factors too have been found to be related with acquiring better English Language Background viz.
• Those children, who come from families where parents, siblings and even visitors communicate in English, have better facility with the language and appeared in the high English Language Background group.
• High English Language Background group reported better opportunities for interaction at home, of speaking in English, exposed to extra reading in English, TV programmes etc.

These factors therefore may be important determinants of language background of students.

PARENT-CHILD INTERACTION SCORES

• The three groups of Entry Behaviour classified on the basis of Parent-Child Interaction scores were significantly different from each other.
  o High Parent-Child Interaction Group was superior on Parent-Child Interaction as compared to Average and Low Parent-Child Interaction groups.
  o Parent-Child Interaction of Average Group was superior to that of Low Group.

The profiles of students with High, Average and Low Parent-Child Interaction highlighted the following points:

• Children of High Parent-Child Interaction Group reported that their parents ‘Frequently’ provided them with stimulating materials, whereas parents of Low Parent-Child Interaction Group ‘Rarely’ provided them with stimulating materials like: subscriptions (newspapers& magazines), Books for extra reading (fiction, facts & language), television programmes, dictionaries, language games and computer programmes.
• ‘Very Frequently’ or ‘Frequently’, the High Group was getting proper guidance and encouragement as compared to the Average and Low Parent-Child Interaction groups.
• Parents of high group were constantly and ‘Very Frequently’ having purposeful verbal interaction and providing them direct teaching as compared to those of Low Group.
• There was a very prominent contrast among the three Parent-Child Interaction groups on the dimensions of providing voluntary enrichment activities and use of rewards for their children.

These factors of Parent-Child Interaction seem to affect the Entry Behaviour of the learners.
PREREQUISITE SKILLS SCORES

• The three groups of Entry Behaviour classified on the basis of Prerequisite Skills scores were significantly different from each other.
  o Adequate Prerequisite Skills Test Group was superior as compared to Average and Inadequate groups.
  o Average Prerequisite Skills Test Group was superior to Inadequate Group on Prerequisite Skills Test Scores.

PRE CRITERION TEST SCORES OF THREE ENTRY BEHAVIOUR GROUPS

• The three Entry Behaviour groups were not different from each other on Pre-Test Criterion Test Scores, which means, Adequate, Average and Inadequate Entry Behaviour groups were not found to different on Pre Criterion Test Scores.

ACHIEVEMENT GAIN SCORES

The analysis on achievement gain scores led to the following conclusions.

• The achievement gain scores of students studying through Bloom’s Mastery Learning Strategy (BMLS), Keller’s Personalized System of Instructional (KPSI) and Eclectic Mastery Learning Strategy were found different as compared to Conventional Group Learning.
  o BMLS yielded higher achievement gain means than KPSI
  o EMLS Group yielded higher achievement gain means than BMLS Group
  o BMLS yielded higher achievement gain means than CGL
  o EMLS Group yielded higher achievement gains mean than KPSI.
  o KPSI group yielded higher achievement gain means than the CGL
  o Achievement gain means of EMLS were higher than those of CGL.

• Three levels of Entry Behaviour viz.: Adequate, Average, and Inadequate Entry Behaviour resulted in almost equal achievement gain means of students.
  o Adequate Entry Behaviour Group was not found different from Average and Inadequate Entry Behaviour groups on achievement gain means.
  o Average Entry Behaviour Group did not show difference in achievement gain means as compared to Inadequate Entry Behaviour Group.

• The instructional strategies and levels of Entry Behaviour were not independent of each other on achievement gain means.
Through Bloom’s Mastery Learning Strategy (BMLS)
- the achievement gain means on Adequate Entry Behaviour Group and Average Entry Behaviour Group were found to be comparable
- the achievement gain means on Adequate Entry Behaviour Group and Inadequate Entry Behaviour Group were found to be comparable
- the achievement gain means on Average Entry Behaviour Group and Inadequate Entry Behaviour Group were found to be comparable

Through Keller’s Personalized System of Instruction (KPSI)
- the achievement gain means on Adequate Entry Behaviour Group and Average Entry Behaviour Group were found to be comparable
- the achievement gain means on Adequate Entry Behaviour Group and Inadequate Entry Behaviour Group were found to be comparable
- the achievement gain means on Average Entry Behaviour Group and Inadequate Entry Behaviour Group were found to be comparable

Through Eclectic Mastery Learning Strategy (EMLS)
- the achievement gain means on Adequate Entry Behaviour Group and Average Entry Behaviour Group were found to be comparable
- the achievement gain means on Adequate Entry Behaviour Group and Inadequate Entry Behaviour Group were found to be comparable
- the achievement gain means on Average Entry Behaviour Group and Inadequate Entry Behaviour Group were found to be comparable

Through Conventional Group Learning (CGL)
- the achievement gain means on Adequate Entry Behaviour Group were found more than Average Entry Behaviour Group
- the achievement gain means on Adequate Entry Behaviour Group were found higher than Inadequate Entry Behaviour Group
- the achievement gain means on Average Entry Behaviour Group and Inadequate Entry Behaviour Group were found to be comparable

For Adequate Entry Behaviour
- BMLS yielded more achievement gain means than KPSI
- Both BMLS and EMLS yielded equal achievement gain means
- BMLS resulted in higher achievement gain means than CGL
- EMLS yielded more achievement gain means than KPSI
- KPSI resulted in higher achievement gain means than CGL
- EMLS yielded more achievement gain means than CGL
For Average Entry Behaviour
- BMLS yielded more achievement gain means than KPSI
- Both BMLS and EMLS yielded equal achievement gain means
- BMLS resulted in higher achievement gain means than CGL
- EMLS yielded more achievement gain means than KPSI
- KPSI resulted in higher achievement gain means than CGL
- EMLS yielded more achievement gain means than CGL

For Inadequate Entry Behaviour
- BMLS yielded more achievement gain means than KPSI
- Both BMLS and EMLS yielded equal achievement gain means
- BMLS resulted in higher achievement gain means than CGL
- EMLS yielded more achievement gain means than KPSI
- KPSI resulted in higher achievement gain means than CGL
- EMLS yielded more achievement gain means than CGL

SELF-EFFICACY GAIN SCORES
The analysis on Self-efficacy gains scores led to the following results:
- Different Mastery Learning Strategies viz. BMLS, KPSI and EMLS resulted into different Self-efficacy gain means as compared to conventional group learning.
  - The mean Self-Efficacy gain scores of students learning through Bloom’s Mastery learning Strategy (BMLS) and Keller’s Personalized System of Instruction (KPSI) did not differ significantly.
  - EMLS Group yielded higher Self-Efficacy gain means than BMLS Group.
  - BMLS yielded higher Self-Efficacy gain means than CGL.
  - EMLS Group yielded higher Self-Efficacy gains mean than KPSI.
  - KPSI group yielded higher Self-Efficacy gain means than CGL.
  - Self-Efficacy gain mean of EMLS was higher than that of CGL.
- Self-efficacy gain means of Adequate, Average and Inadequate Entry Behaviour groups were not found different from each other.
- The instructional strategies and levels of Entry Behaviour were independent of each other on Self-Efficacy gain means.
EFFECT SIZES

- Eclectic Mastery Learning Strategy (EMLS) was found to have maximum effect size on achievement gain scores, second being Bloom’s Mastery Learning Strategy and quite high otherwise, but third was Keller’s Personalized System of Instruction.
- The effect sizes for Self-efficacy gain means were also in the same order with Eclectic Mastery Learning Strategy (EMLS) having the maximum effect size, second being Bloom’s Mastery Learning Strategy and the third was Keller’s Personalized System of Instruction.

EDUCATIONAL IMPLICATIONS OF THE FINDINGS

The results of the present investigation indicate that in teaching students through Mastery Learning Strategies, it is better to modify the Bloom’s Mastery Learning Strategy and Keller’s Personalized System of Instruction according to the need of the situation and the learners. Control and flexibility, among other advantages offered to the learner in Eclectic Mastery Learning Strategy, lead us to propose that such a strategy is more effective than traditional models. Although all the three Mastery Learning Strategies are highly effective in ensuring mastery, yet, Eclectic Mastery Learning Strategy offers a great new possibility to improve achievement and enhance Self-efficacy by providing students with mastery experiences. Eclectic Mastery Learning Strategy can provide the highly favourable instructional component needed to promote equality in educational outcomes and to encourage individuality in student learning. Quality instruction and equality of results can add to provide best and healthy experiences to children.

Experiences of success or failure have important effects on a child’s perceptions and beliefs of their abilities and their future expectations in many achievement settings. Teachers need to provide many opportunities for children to experience success. Children must be encouraged to perceive themselves as capable learners, to set high standards, believe in themselves, and to develop learning strategies to help them overcome difficulties. It is important that successful opportunities are provided for all students. Educators must also look at what factors students attribute to their success or failure. Mastery attainment leads to higher strides of success and success in turn enhances Self-efficacy. Hence efforts should be made by teachers to enhance students’ Self-efficacy or beliefs in their own capability, to impel or propel engagement in the learning process, and to teach students through relevant strategies that can be used.

Utilization of knowledge about Entry Behaviour status for designing instruction appears to be an important direction that the results of this study provide. Not only the prerequisite testing, as is done even in conventional teaching but some other background
factors be identified before the teacher implements instructional plan. The results indicate that some factors like language spoken at home with parents, siblings and other members enhance language background of the learners.

The outcomes of the study, which are grounded in study of language background and parent-child interaction, revealed the importance of language environment at home and school that promote language learning. The importance of parent-child interaction was found to be beneficial factor in their language-learning environment and must be exploited by the teachers. Similar efforts be made in different subject areas where home and school factors other than prior knowledge in the subject be identified and used for designing and implementing instruction. It is also recommended that teachers participate in a training programme to become familiar with different strategies of Mastery Learning and their effect on achievement and Self-efficacy so that they may improve learning in any classroom.

Findings would serve to guide the creation of programs that may attempt to make parents aware of the importance of parent-child interaction for enhancing their wards', by aiding in their language acquisition, as well as psychological well-being. School psychologists can use this information to work with English as a Second Language and Bilingual teachers to create school-based collaborative parent-programs to address the academic and psychological needs of these families.

**SUGGESTIONS FOR FURTHER RESEARCH**

The investigator is quite aware of the limitations under which the present research was conducted and therefore accepts that no sweeping generalizations could be made. These findings are only indicative of trends and hence are to be viewed in the light of following limitations.

- The sample of the children was drawn mainly from the Public Schools.
- The Sample was limited only to the urban areas.
- The study was limited to only grade IX of normal children rather than on any specific group of children.
- The variables studied were limited to Mastery Learning Strategies, Entry Behaviour, Achievement and Self-efficacy.
- Study was conducted on both boys and girls.
- Achievement was viewed as performance in English Language only.

The researcher, by virtue of her experience in the field of the study humbly offers the following suggestions for further research that could be undertaken by the prospective researchers.

- Based on the present research about Mastery Learning strategies, academic achievement and Self-efficacy beliefs, it is clear that an empirical connection between the three exists. To complement this research, further research is
needed that will better capture the sources of Self-efficacy beliefs like Mastery Learning and their potential for motivating achievement. So, perhaps most importantly, research is needed in which students’ Self-efficacy beliefs are altered and the effects of those changes on academic performance measured.

- For future study, it is recommended that this research be replicated at other levels to determine if the results of the study were influenced by other environmental factors in the school or in the geographical area.
- Relative effectiveness of the three Mastery Learning strategies may be researched at large scale, especially for learners of different age groups, subject areas, ability levels, socio-economic status etc.
- Some experimental studies can be planned and conducted to study the effect of language background, parent education programmes by the schools to improve Parental involvement and Parent-child interactions and their impact on the competencies of the children.
- It is recommended that further research be conducted on effectiveness of the innovative Strategy i.e. Eclectic Mastery Learning Strategy, used in this study in other content course areas, such as history, political science, and Mathematics.
- Findings of the study support the need for further research to involve investigations that compare trends in achievement and Self-efficacy across different levels of Entry Behaviour. Such research may serve to expand the knowledge base useful for improving teaching strategies.
- Studies may be undertaken to investigate the effect of different combinations of Bloom’s Mastery Learning Strategy and Keller’s Personalized System of Instruction.
- Further studies may be conducted involving other affective variables like self-esteem, self-concept, test anxiety, achievement motivation, study habits and self-concept.
- Other dimensions of Parental Involvement like consistency of management at home, work habits, study habits, cognitive styles of parents, helping the child to differentiate and become aware of himself, improving nature of discipline should be explored for their impact on achievement and Self-efficacy.
- Based on these current findings, future studies could investigate the links between parents’ educational status, attitude towards language and their child’s second language learning.
- Meta-analysis of the studies in respect of Mastery Learning Strategies may be conducted.