CHAPTER-5

Summary And Conclusions
INTRODUCTION

In the previous chapters, introduction to the problem, development of the tools, method 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. 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 him/her self. 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 fulfil the promises they make and to discharge the duties they undertake. This
strategy also promises effective social development of an individual through its methodology as well as the successful experiences it provides (Clark, Guskey and Benning, 1983). 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, schools, or school systems will be now close to getting 95% of their students up to the levels that are now reached by only about a tenth of the students. The principle defining characteristics of Mastery Learning methods are the establishment of a criterion level of performance held to represent mastery of a given skill or concept, frequent assessment of student progress towards the mastery criterion and provision of corrective instruction to enable students who do not initially meet the mastery criterion to do so on later parallel assessment.

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.

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In order to ensure mastery for all students, feedback/correctives were used. The purpose of feedback correctives is to provide each learner with the clearest and most appropriate instructional cues, the requisite amounts of active involvement in and practice of the learning and the amounts and types of reinforcements his learning requires. There are variety of feedback correctives which have been used most frequently.

- Small group problem session.
- Individual tutoring.
- Alternative learning materials
  - Textbooks
  - Workbooks
  - Programmed Instruction
  - A-V aids
  - Academic games and puzzles
- Reteaching.

Sometimes it may be necessary to use feedback/correction devices more than once in a given learning unit but sometime single feedback correctives were used.

The students success or failure on the early units shapes his interest in and attitude toward the learning of later units. More frequent use of the feedback correctives devices during their early units would ensure each student’s though mastery of the skills and provide him the successful initial learning experiences crucial for sustaining his desire to learn.

Life skills include a wide range of knowledge and skill interactions believed to be essential for adult independent living (Brolin, 1989). These are essential to job functioning and they must be included in instruction for students.

In 1991, United Nations Educational, Scientific and Cultural Organisation had suggested to implement life-skills techniques for teaching act in school based programme.
WHO (1993) mentions that life skills consists of 10 skills (5 pairs) as follows:

- Creative thinking and Critical thinking.
- Self awareness and Empathy.
- Relationship and Communication.
- Decision making and Problem solving.
- Coping with emotions and Coping with stresses.

From these, the investigator selected only three life skills for study as – Critical Thinking, Decision Making, and Coping with stresses. The investigator tries to develop these life skills through Mastery Learning Strategy.

In addition, key elements of quality learning relate to the students’ perceptions of quality teaching, which in turn influences their approach to study and ultimately learning outcome. Approach to learning can be described as the relationship between the student and a learning task. This process is not static but is dynamic and changes as the situation changes.

Marton, Entwistle and Hounsell (1984) have concentrated on the approaches during normal study activities that the approaches to learning and studying which students adopt in their everyday work can be described in terms of the deep and surface distinction. A deep approach to learning is compared with David Ausbel’s idea of a meaningful learning set. The students set out with the intention actively to seek out the meaning and to reconstruct a personal understanding of the article. In contrast, a surface approach is narrowly focussed on the details. The students concentrate on rote learning techniques to reproduce aspects of article about which they expect.

The learners use the new material to actively reconstruct their conceptual frameworks. The process also involves seeking personal meaning in the material and active engagement with it. Intrinsic motivation can be expected to lead for the most part towards deep processing strategies.

Surface processing is characterized by memorizing and by limiting the domain of activity. Its focus tends to be on completion of the task with
minimum conceptual effort. The task may be seen as externally imposed and to be accomplished as expeditiously as possible with mechanical activities. Extrinsic motivation may promote more surface approaches, as part of effort to meet requirements.

So, the present study was undertaken with a view to investigate the effect of individualised single feedback correctives in mastery learning of life skills in relation to learning approaches.

**STATEMENT OF THE PROBLEM**

“Effect of Individualised single feedback correctives in mastery learning of Life Skills in relation to Learning Approaches”

**OBJECTIVES OF THE STUDY**

The following research questions raised for investigation:

- To develop Mastery Learning packages in the subject of Geography for IXth class students.
- To study the effectiveness of Mastery Learning strategy in Geography in terms of life skills (Skill of acquiring knowledge, decision making, critical thinking, coping with stresses).
- To study effect of individualised single feedback corrective on academic achievement and other life skills.
- To study effect of approaches to learning of students affects the acquisition of geographical concepts and other life skills.
- To study the interactional effect of Mastery Learning Strategy with single feedback and learning approaches on life skills.

**HYPOTHESES**

The following hypotheses were formulated and tested:

\( H_0.1 \) There will be no significant difference in gain means of students on skill of acquiring knowledge studying through Mastery Learning with single feedback, Mastery Learning with multiple feedback or conventional learning group.
Students studying through Mastery Learning single feedback and Mastery Learning with multiple feedback achieve equal gain means on skill of acquiring knowledge.

Students studying through Mastery Learning with single feedback and conventional learning group achieve equal gain means on skill of acquiring knowledge.

Students studying through Mastery Learning with multiple feedback and conventional learning group achieve equal gain means on skill of acquiring knowledge.

There will be no significant difference in gain means on skill of acquiring knowledge of students with deep and surface learning approaches.

There will be no interaction effect of Instructional Strategy (Mastery Learning with single feedback, Mastery Learning with multiple feedback or conventional learning group) and learning approaches (Deep and Surface) to yield differences in gain means on skill of acquiring knowledge.

There will be no significant difference in gain means of students on skill of critical thinking studying through Mastery Learning with single feedback, Mastery Learning with multiple feedback or conventional learning group.

Students studying through Mastery Learning single feedback and Mastery Learning with multiple feedback achieve equal gain means on skill of critical thinking.

Students studying through Mastery Learning with single feedback and conventional learning group achieve equal gain means on skill of critical thinking.

Students studying through Mastery Learning with multiple feedback and conventional learning group achieve equal gain means on skill of critical thinking.

There will be no significant difference in gain means on skill of
critical thinking of students with deep and surface learning approaches.

Ho.6) There will be no interaction effect of Instructional Strategy (Mastery Learning with single feedback, Mastery Learning with multiple feedback or conventional learning group) and learning approaches (Deep and Surface) to yield differences in gain means on skill of critical thinking.

Ho.7) There will be no significant difference in gain means of students on skill of decision making studying through Mastery Learning with single feedback, Mastery Learning with multiple feedback or conventional learning group.

Ho.7.1) Students studying through Mastery Learning with single feedback and Mastery Learning with multiple feedback achieve equal gain means on skill of decision making.

Ho.7.2) Students studying through Mastery Learning with single feedback and conventional learning group achieve equal gain means on skill of decision making.

Ho.7.3) Students studying through Mastery Learning with multiple feedback and conventional learning group achieve equal gain means on skill of decision making.

Ho.8) There will be no significant difference in gain means on skill of decision making of students with deep and surface learning approaches.

Ho.9) There will be no interaction effect of Instructional Strategy (Mastery Learning with single feedback, Mastery Learning with multiple feedback or conventional learning group) and learning approaches (Deep and Surface) to yield differences in gain means on skill of decision making.

Ho.10) There will be no significant difference in gain means of students on skill of coping stress studying through Mastery Learning with single feedback, Mastery Learning with multiple feedback or conventional learning group.
conventional learning group.

Ho. 10.1) Students studying through Mastery Learning single feedback and Mastery Learning with multiple feedback achieve equal gain means on skill of coping stress.

Ho. 10.2) Students studying through Mastery Learning with single feedback and conventional learning group achieve equal gain means on skill of coping stress.

Ho. 10.3) Students studying through Mastery Learning with multiple feedback and conventional learning group achieve equal gain means on skill of coping stress.

Ho.11) There will be no significant difference in gain means on skill of coping stress of students with deep and surface learning approaches.

Ho.12) There will be no interaction effect of Instructional Strategy (Mastery Learning with single feedback, Mastery Learning with multiple feedback or conventional learning group) and learning approaches (Deep and Surface) to yield differences in gain means on skill of coping stress.

DELIMITATIONS OF THE STUDY

The present study was delimited with respect to the following:

- The study was limited to acquisition of geographical concepts only. The mastery learning packages was prepared on topics of Geography.
- The study was limited to a sample of 200 students of IXth class only.
- The study was limited to students studying in various schools located in Chandigarh only.
- The study was limited to only four type of life-skills i.e. Subject Performance/Achievement, Decision Making, Critical Thinking and Coping with Stress.
- The study was limited to only Bloom’s mastery learning strategy and only two types of approaches to learning i.e. Deep and Surface approach.
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 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:

- A prerequisite skills or Entry behaviour test (Developed and validated by the investigator).
- Instructional sequences for Mastery Learning, which run into Eleven units especially designed to develop geographical concepts among IXth class students. Instrument and Process of Remediation have also been included (Developed and validated by the investigator).
- A set of Unit Formative Criterion test : For each of the 11 instructional units a formative criterion test (developed by the investigator).
- A Summative Criterion Test (Developed and validated by the investigator).
- 16-PF Scale (developed and standardized by Catell) was used to check critical thinking and decision making life skills among students.
- Ways of Coping questionnaire (developed by Susan Folkman and Richard S. Lazarus) to know ways/styles of coping with stress.
- Revised two factor study process questionnaires (R-SPQ-2F) (developed and standardized by Biggs, J. 2001) : This tool was use to identify deep and surface learning approaches.

Details of each one of the above tools have been discussed in Chapter II of the report.
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 senior secondary schools located in Chandigarh. At the initial stage 300 students were selected but 100 students dropped out at one or the other stage and they are adjusted in other sections and continue their regular classes. The Final Sample comprised of 200 students, out of these 200 students, 100 students were with deep approach to learning while other 100 students worked with surface approach to learning. On the whole sample of 200 students was selected which was further divided equally in three categories i.e.

1) Experimental group (100 students) were divided in (a) Mastery Learning Strategy through single feedback corrective, (N=50 students), (b) Mastery Learning Strategy through multiple feedback corrective (N=50 students).

2) Control Group – Conventional method of teaching was used with sample of 100 students.

DESIGN OF THE STUDY
The present study was designed to investigate into the effectiveness of mastery learning strategy with single feedback corrective and approaches to learning on various life skills. For the study, 2x3 design will be employed. Achievement in various life skills will be the dependant variable. Different mastery learning instructional strategies were the treatment variables. This variable was studied at three levels viz. Single feedback repeated/multiple feedback and conventional group learning. Approaches to learning which was another independent variable, was used for categorizing students into two groups of approaches to learning viz. Deep and Surface. This second independent variable was studied at two levels. The schematic layout of the experimental design has been given below:
PROCEDURE

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

- Selecting the sample.
- Conducting the experiment.

SELECTING THE SAMPLE

The two factor Study Process Questionnaires were used for classifying students into Deep Learning approach and Surface Learning Approach groups. The selected sample was allocated to different treatments.

CONDUCTING THE EXPERIMENT

The experiment was conducted in three phases as presented in the following paragraphs :

- Phase-I : Administration of approaches to learning questionnaire and Pre-requisite Skill Test.
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- Phase-II: Administration of the Pretest (Criterion test) and Life Skills tests.
- Phase-III: Implementing Instructional Programme.
- Phase-IV: Administration of Post-test.
- Phase-V: Scoring.

**Phase-I: Administration of the Prerequisite Skill Test and Approaches to learning questionnaire**

After selecting the schools for samples, the investigator fixed appointments and discussed the proposed instructional programme with the Directors and Principals availability and favourable climate for research were the criteria for the final selection of the schools. A meeting with class teachers and subject teachers helped in chalking out the date and time schedules for the implementation of the programme. The investigator visited the selected classes and established a rapport with students of IX class of these schools. An informal introduction and orientation into the mechanism of Lg. through M.I.S. was then provided to the students. The students were also acquainted with the objectives of the research plan. The students were then administered with the Pre-requisite skill test and approaches to learning questionnaire on separate days.

Before starting with the instructional programme, all the selected students were given questionnaire of approaches to learning. The revised two factor study process questionnaire (R-SPQ-2F) was used to identify deep approach and surface approach. The test was administered during its first phase so that it is scored in advance. And check that the three school sub-samples has adequate number of deep and surface approach students, and also that the proposition of deep and surface approach was almost equal in both the experimental groups i.e. single feedback group, multiple feedback group and control (conventional) group.

Before starting with the instructional programme, all the selected students were given a pre-requisite skill test. Scores of the test were used to
determine whether the students had the pre-requisite skills, required for the instructional treatment. In case where the students did not fulfil the condition of entry behaviour, they were provided orientation before entering into the instructional programme.

**Phase-II : Administration of Pre-test (Criterion test) and Life Skills**

Pre-test (Criterion test) was administered to all the students of selected groups. Space for answers was provided with the questions. Scores was done to obtain the information regarding knowledge of the students on the topics to be taught through the experimental treatment. No time limit was imposed for completing pre-test so that a clear and exact level of students regarding instructional content is assessed. Time limit, would have forced the learners to leave the test even if they know the content. The sequence of the test was the same in all the three schools. Also pre-test of different life skills also administered in this phase.

**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 two groups i.e. B-Mastery Learning Strategy with single feedback corrective, B-Mastery Learning Strategy with multiple feedback corrective were taught by the investigator. The third group viz. Control group was taught by the regular
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Geography teacher in the conventional group learning situation. It generally refers to reading out the Chapter by the teacher solving exercises and providing notes for certain important questions. Lessons were provided to the regular Geography teacher by the investigator, so that there is no difference among group on the amount of content taught to them.

Phase-IV : Administration of the Post Test

After completion of all the Eleven units, the criterion test was administered to all students. Also post test of different life skills i.e. critical thinking, decision making, coping stress was administered to all students. Answer sheets were scored. Students were thanked for their full cooperation during the entire period of the experiment.

Phase-V : Scoring

All the tools were scored according to their prescribed scoring keys and the data thus, obtained was subjected to statistical analysis.

THE STATISTICAL TECHNIQUES

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

- Descriptive statistics like Mean, Medians, Standard deviations, Skewness and Kurtosis were used wherever required.
- Graphical analysis : presentations were done through Bar graphs, Frequency polygons and Inverted Ogives.
- One–way Analysis of variance was used for Pre–test scores of three groups for each skill.
- Two way analysis of variance on gain scores of achievement interaction to instructional strategies and approaches to learning for each life skills.
- Each significant F–ratio was followed by t–test.
MAJOR FINDINGS

In the light of the analyses and interpretation of the data, as reported in Section I, II, III and IV of the preceding chapter, the following conclusions were drawn on the basis of analyses related with skill of Acquiring Knowledge, skill of Critical Thinking, skill of Decision Making and skill of Coping Stress.

SECTION I

Analyses Based on Scores of Skill of Acquiring Knowledge

Conclusions drawn on the basis of post criterion test scores

- In the Mastery Learning Strategy with single feedback corrective group under the skill of acquiring knowledge, 75% of the students’ attained equal or more than 48.5% of scores. About 50% of the students attained equal or more than 42.5% of scores and 25% of the students attained equal or more than 35.5% of scores.

- In the Mastery Learning Strategy with Multiple feedback corrective group under the skill of acquiring knowledge, 75% of the students attained more than 52.5% of scores. About 50% of the students attained equal or more than 45.5% of scores and 25% of the students attained about 37.5% of scores.

- In the conventional learning group, 75% of the students attained equal or more than 24% of scores. About 50% of the students attained equal or more than 16% of scores and rest of the students scored below 16% scores.

- The gain means on skill of acquiring knowledge were invariably higher for students of experimental group (Mastery Learning Strategy with Single Feedback Corrective and Mastery Learning Strategy with Multiple Feedback Corrective) than that of control group students.

Conclusions drawn on the basis of 2x3 ANOVA on gain scores for skill of acquiring knowledge

- The achievement gain means were different for different instructional strategies i.e. Mastery Learning Strategy–Single Feedback Corrective,
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Mastery Learning Strategy—Multiple Feedback Corrective and Conventional Learning Group, on skill of acquiring knowledge.

- Students studying through Mastery Learning Strategy with single feedback corrective and Mastery Learning Strategy with multiple feedback corrective achieved equal gain means for skill of acquiring knowledge.

- Students studying through Mastery Learning Strategy with Single feedback corrective group yielded higher gain means than those who were studying in a conventional group learning, on skill of acquiring knowledge.

- Students studying through Mastery Learning Strategy with Multiple Feedback Corrective yielded higher gain means than those who were studying in a conventional learning group on skill of acquiring knowledge.

- Students with deep and surface approaches to learning scored equal levels of gain means scores for skill of acquiring knowledge.

- There was no significant interaction among instructional strategies i.e. Single Feedback Corrective, Multiple Feedback Corrective and Conventional Learning Group and approaches to learning (deep and surface) to yield different gain means on skill of acquiring knowledge.

SECTION II

Analyses Based on Scores of skill of Critical Thinking

Conclusions drawn on the basis of post–test scores:

- In the Mastery Learning Strategy with single feedback corrective group under the skill of critical thinking, 75% of the students attained about 9.8% of scores. About 50% of the students attained equal or more than 7.9% of scores and 25% of the students attained equal or more than 5.7% of scores.

- In the Mastery Learning Strategy with multiple feedback corrective group under the skill of critical thinking, 75% of the students attained
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about 8% of scores. About 50% of the students attained equal or more than 6.5% of scores and 25% of the students attained about 4.8% of scores.

- In the conventional group learning under the skill of Critical Thinking, 75% of the students attained equal or more than 8.7% of scores. About 50% of the students attained about 6.2% of scores and 25% of the students attained about 3.8% of scores.

- The gain means on skill of critical thinking were invariably higher for students of experimental groups (Mastery Learning Strategy with Single Feedback Corrective and Mastery Learning Strategy with Multiple Feedback Corrective) than that of control group students.

Conclusions drawn on the basis of 2x3 ANOVA on gain scores for skill of Critical Thinking

- The achievement gain means were different for different instructional strategies i.e. Mastery Learning Strategy–Single Feedback Corrective, Mastery Learning Strategy–Multiple Feedback Corrective and Conventional Learning Group, on skill of critical thinking.

- Students studying through Mastery Learning Strategy with Single Feedback Corrective group yielded higher gain means than those who studying in a Mastery Learning Strategy with Multiple Feedback Corrective group, on skill of critical thinking.

- Students studying through Mastery Learning Strategy with Single Feedback Corrective group yielded higher gain means than those who studying in a conventional learning group, on skill of critical thinking.

- Students studying through Mastery Learning Strategy with Multiple Feedback Corrective group and conventional learning group achieved equal gain means for skill of critical thinking.

- Students with deep and surface approaches to learning scored equal levels of gain means for skill of critical thinking.

- There will be no significant interaction among instructional strategies i.e. Single Feedback Corrective, Multiple Feedback Corrective and
Conventional Learning Group and approaches to learning (deep and surface) on skill of critical thinking.

SECTION III

Analysis Based on Scores of Skill of Decision Making

Conclusions drawn on the basis of post–test scores:

- In the Mastery Learning Strategy with single feedback corrective group under the skill of decision–making, 75% of the students attained about 10.2% of scores. About 50% of the students attained equal or more than 7.9% of scores and 25% of the students attained about 5.5% of scores.

- In the Mastery Learning Strategy with multiple feedback corrective group under the skill of decision–making, 75% of the students attained about 9.3% of scores, 50% of the students attained about 7.2% of scores and 25% of the students attained equal or more than 5% of scores.

- In the Conventional Learning Group, 75% of the students attained equal or more than 8.3% of scores. About 50% of the students attained about 6.6% of scores and 25% of the students attained equal or more than 4.6% of scores.

- The gain means on skill of decision making were invariably higher for students of experimental group (Mastery Learning Strategy with Single Feedback Corrective and Mastery Learning Strategy with Multiple Feedback Corrective) than that of conventional learning group students.

Conclusions drawn on the basis of ANOVA gain scores for skill of critical thinking

- The achievement gain means were different for different instructional strategies i.e. Mastery Learning Strategy–Single Feedback Corrective, Mastery Learning Strategy–Multiple Feedback Corrective and Conventional Learning Group, on skill of decision–making.

- Students studying through Mastery Learning Strategy with Single Feedback Corrective group yielded higher gain means than those who studying in a Mastery Learning Strategy with Multiple Feedback Corrective group, on skill of decision making.
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• Students studying through Mastery Learning Strategy with single feedback corrective group yielded higher gain means than those who studying in a conventional learning group on skill of decision making.

• Students studying through Mastery Learning Strategy with Multiple Feedback Corrective group and Conventional Learning Group were not differ significantly for skill of decision making.

• Students with deep and surface learning approach scored equal levels of gain means scores for skill of decision making.

• There will be no significant interaction among instructional strategies i.e. Single Feedback Corrective, Multiple Feedback Corrective and Conventional Learning Group and approaches to learning (deep and surface) on skill of decision making.

SECTION–IV

Analyses Based on Scores of Skill of Coping Stress

Conclusions drawn on the basis of 2x3 ANOVA on gain scores for skill of coping stress

• The achievement gain means (Total) were equal for different instructional strategies i.e. Mastery Learning Strategy–Single Feedback Corrective, Mastery Learning Strategy–Multiple Feedback Corrective an Conventional Learning Group on skill of coping stress.

• Students with deep and surface learning approach scored equal levels of gain means of total scores for skill of coping stress.

• There was no significant interaction among instructional strategies i.e. Single Feedback Corrective, Multiple Feedback Corrective and Conventional Learning Group and approaches to learning i.e. Deep and Surface for gain scores on skill of coping stress.

EDUCATIONAL IMPLICATIONS OF THE FINDINGS

The results of the present investigation indicate that the Mastery Learning Strategies with single feedback corrective and with multiple feedback corrective may be used to enhance the performance of the students in the
subject social studies (Geography) at the secondary level as compared to the conventional method of teaching. It is evident from the results that if teachers try to switch over to these strategies not only academic achievement of students will improve but will also enhance their life skills. Mastery Learning Strategy with single feedback corrective was found more effective as compared to Mastery Learning Strategy with multiple feedback corrective and conventional learning group, irrespective of the fact which learning approach was followed by the students. It may be suggested that teachers should be given orientation in the development of instructional material in that form which can be communicated easily to students.

Mastery Learning is built on the assumption that majority of students, ninety five percent, can become equal in their ability to learn standard school tasks (Blooms, 1981). It has been realized by educationists worldwide that quality of education be raised by incorporating activities, which boost various life skills of students. The difference among the gain means of the three instructional strategies Mastery Learning Strategy – with Single Feedback Corrective, MCS – with Multiple Feedback Corrective and Conventional Learning Group as measured by scores on skill of acquiring knowledge and other selected life skills, i.e. skill of critical thinking, skill of decision making and skill of coping stress suggested that instructions through Mastery Learning Strategy result into improvement of other life skills too.

The results may be of significant help for curriculum planners to view various activities that may develop critical thinking, decision making and also their ways of coping stress.

The results can also be useful for school administrators to have mixed groups of students adopting surface or deep learning approaches since Mastery Learning Strategy has proved to enhance all life skills of students whether they adopt deep approach or surface approach to learning. The results of the present investigation have encouraging solution for administrators in a way that students with deep approach of learning, who have normally a high potential for long–lasting learning, may satisfy their deep urge through Mastery Learning Strategy with equivalent impact on surface approach students as well.
Summary and Conclusions

Present day scenario of Indian Education System puts more emphasis on levels of achievement hence the classroom interactions remain passive for learners. The teacher dominated classroom environment with maximum focus on content may be eased through teaching with Mastery Learning Strategy which would not only make class climate lively and participative but will also help in encouraging motivation, critical thinking, decision making and coping stress. All these will prepare our students for meeting the challenges of life courageously and successfully.

The emphasis on current educational policies is on the development of life skills that would help students to achieve and live affectively in their latter life. Special programmes are being organised to provide training for life skills. The results of the present research highlight and important findings that Mastery Learning Strategy with single feedback or with multiple feedback not only enhances levels of achievements but also gives a boost to other important life skills like critical thinking and decision making and, that too, without any additional / extra activities and efforts. This finding is very important for curriculum planners, administrators and teachers and may be used in a wider perspective.

SUGGESTIONS FOR FURTHER STUDY

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 the following limitations:

- 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.
- Study was conducted on both boys and girls.
- Achievement was viewed as performance in Geography only.
- The variables studied were limited to Bloom’s Mastery learning strategy with single feedback corrective and Blooms Mastery Learning strategy
Summary and Conclusions

with multiple feedback corrective, approaches to learning (deep and surface) and Life Skills (Acquiring knowledge, Critical thinking, Decision making and Coping stress).

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.

- Relative effectiveness of the two treatments (Mastery Learning Strategy–Single Feedback Corrective and Mastery Learning Strategy–Multiple Feedback Corrective) may be researched further at macro level for learners of different age groups, subject areas, ability levels, learning disabilities and socio-economic status.

- Further studies may be conducted involving other affective variables like Achievement motivation, Study habits, Self-concept, Self-efficacy, Creativity, Level of aspiration, Test anxiety and other personality traits. Moreover, psychomotor variables may also be included.

- Further researches should be conducted involving instructional strategies that enhance self-esteem and their impact be studied not only on to academic achievement but also in other areas like Substance abuse, Antisocial acts, Adolescent pregnancy, Suicide, HIV–AIDS awareness and other self-destructive behaviours at school, college and university levels.

- The present study may also be replicated on a larger population for greater validation of results.

- Studies may be undertaken to investigate the effect of different components of Mastery Learning Strategies viz. Perseverance, Aptitude, Rate of learning etc. and their effects on life skills.

- A similar study may be replicated with other subject areas. Impact of Mastery Learning Strategy with single or multiple feedback correctives on other subjects may be studied.

- Various other life skills may be studied through similar experimental studies at different levels of education.
Summary and Conclusions

- The interactional effect of learning approaches and life skills can be reconsidered.
- Further research should be conducted involving other instructional strategies, to study their relationship with life skills.
- The Mastery Learning Strategy with single or multiple feedback correctives may be seen with respect to the other life skills, like Interpersonal Relationships, Self-esteem, Self-awareness, Positivism etc.
- School administrators, guidance and counselling workers, teachers and students can take cues from the results of the study for the advantage of the learners and society as a whole.
- The studies may be planned and conducted by involving more organismic and environmental variables, instead of learning. Approaches other characteristics of learners viz. Confidence, Level of learners, Attitude of learners, Entry behaviour status, Motivational level and other environmental variables like Barriers of communication etc. can be studied.