CHAPTER – 5
CONCLUSIONS, REMEDIAL SUGGESTIONS AND IMPLICATIONS FOR FURTHER RESEARCH

The ultimate goal of any research is to arrive at a final solution of the problem or an answer to the research question with which the investigation was conducted. Such a solution is in the nature of being ‘conclusion’ of the study. The process of extending or applying the observations derived from a limited sample to a wider sample or population is called generalization. This involves an induction, which is a logical process of proceeding from the known to unknown. Some researchers make distinctions between generalizations and conclusions but operationally they are not very different. Here the term ‘conclusions’ has been used which is kind of ‘summing up’ or a final ‘proclamation’ on the fate of hypotheses tested by the research.

In the following paragraphs, conclusions of the study have been reported:

5-1 CONCLUSIONS
The following conclusions were drawn logically from the analysis and interpretation of data. These have been presented below in a systematic manner.

5-1.1 DIFFERENCES IN LEARNING MODES AND LEARNING STYLES OF EDUCATIONALLY DISADVANTAGED (SC, ST AND OBC) STUDENTS
There were significant differences in two learning modes viz. reflective observation mode and active experimentation mode; and three learning styles namely diverger, assimilator and accommodator. ST and OBC students had more preference for reflective observation than SC students. SC students had more inclination towards active experimentation than OBC students. On diverger learning style ST and OBC were higher than SC students. On assimilator learning style, ST and OBC were higher than SC students. OBC students were
higher than ST students on accommodator learning style and SC students had stronger inclination than OBC students on this learning style

5-1.2 DIFFERENCE IN LEARNING MODES AND LEARNING STYLES OF SC, ST AND OBC MALE STUDENTS

Male students belonging to SC, ST and OBC differed significantly on one learning Mode viz. Reflective Observation Mode and one learning style viz. assimilator learning style. OBC male students were found to have stronger preference for reflective observation mode and assimilator learning style than their counterparts SC male and ST male students.

5-1.3 DIFFERENCES IN LEARNING MODES AND LEARNING STYLES OF SC, ST AND OBC FEMALE STUDENTS

There existed significant differences among SC, ST and OBC female students on Reflective Observation Mode and Active Experimentation Mode and Diverger, Assimilator and Accommodator learning styles. Female students of ST and OBC showed more preference for Reflective Observation Mode than female students of SC. On Active Experimentation mode, however, female SC and female ST students had greater inclination towards Active Experimentation than female OBC students. For Diverger learning style female SC students had more preference than female OBC students. For Assimilator learning style female OBC students had more preference than female SC students. For accommodator learning style, SC and ST female students had more preference than female OBC students.

5-1.4 DIFFERENCES IN LEARNING MODES AND LEARNING STYLES OF MALE AND FEMALE STUDENTS IN SC, ST AND OBC GROUPS

In SC and ST groups gender difference did not exist with reference to any learning mode and any learning style. However, in case of OBC, male students had stronger preference for Active Experimentation Mode and Accommodator learning style than female students.
5-1.5 DIFFERENCES IN LEARNING MODES AND LEARNING STYLES OF SC, ST AND OBC STUDENTS OF SCIENCE STREAM

SC, ST and OBC students of Science differed significantly on Assimilator and Accommodator learning styles. For Assimilator learning style ST and OBC students of science stream had more preference than SC students while for accommodator learning styles SC students had more preference than ST and OBC students of science.

5-1.6 DIFFERENCES IN LEARNING MODES AND LEARNING STYLES OF SC, ST AND OBC STUDENTS OF ARTS STREAM

Significant difference existed in two learning modes of SC, ST and OBC students of arts stream. SC student of Arts had more liking for concrete experience mode than ST and OBC students of arts stream. Further, OBC students of arts had stronger liking for abstract conceptualization than ST students. For active experimentation mode, SC students of arts had stronger preference than OBC students of arts. On the other hand, OBC students of arts stream had more preference for diverger learning style than SC and ST students of arts. In rest of the modes and styles no difference existed.

5-1.7 DIFFERENCE IN LEARNING MODES AND LEARNING STYLES OF SCIENCE AND ARTS STUDENTS IN SC, ST AND OBC

In SC, science students showed more preference for learning through concrete experience than arts students. But in ST and OBC students of science and arts had similar preference for all modes and styles of learning.

5-1.8 DIFFERENCES IN LEARNING MODES AND LEARNING STYLES OF SC, ST AND OBC STUDENTS HAVING HIGH ACADEMIC STRESS

SC, ST and OBC students having high level of academic stress were similar in their preference for learning modes and learning styles.
5-1.9 DIFFERENCE IN LEARNING MODES AND LEARNING STYLES OF SC, ST AND OBC STUDENTS HAVING LOW ACADEMIC STRESS

SC, ST and OBC students having low academic stress did not differ in their preference for learning modes and learning styles.

5-1.10 DIFFERENCE IN LEARNING MODES AND LEARNING STYLES OF STUDENTS HAVING HIGH AND LOW ACADEMIC STRESS IN SC, ST AND OBC

In SC, ST and OBC students having high and low academic stress had similar preferences for learning modes and learning styles.

5-1.11 DIFFERENCES IN LEARNING MODES AND LEARNING STYLES OF STUDENTS HAVING HIGH ACADEMIC MOTIVATION

Students having high academic motivation in SC, ST and OBC had similar preference for each learning mode and learning style.

5-1.12 DIFFERENCES IN LEARNING MODES AND LEARNING STYLES OF SC, ST AND OBC STUDENTS HAVING LOW ACADEMIC MOTIVATION

SC, ST and OBC students with low level of academic motivation differed significantly with reference to certain learning modes and certain learning styles. ST and OBC showed greater magnitude of preference than SC students with low academic motivation had more preference for academic motivation than ST and OBC students with low academic motivation were more inclined towards assimilator learning style than their counterparts. ST students with low academic motivation were more inclined towards accommodator learning style than OBC students with low academic motivation. SC students with low academic motivation were more prone to use of converger learning style than OBC students with low academic motivation. SC students with low academic motivation with stronger preference for accommodator than ST and OBC students with low academic motivation.
5-1.13 DIFFERENCES IN LEARNING MODES AND LEARNING STYLES OF SC, ST AND OBC STUDENTS HAVING HIGH AND LOW ACADEMIC MOTIVATION

SC, ST and OBC students with high and low levels of academic motivation did not differ significantly with reference to learning modes and learning styles.

5-1.14 DIFFERENCES IN LEARNING MODES AND LEARNING STYLES OF EDUCATIONALLY DISADVANTAGED AND ADVANTAGED STUDENTS

Educationally disadvantaged students had more preference for learning through concrete experience mode, reflective observation mode and diverger learning style whereas educationally advantaged had more preference for learning through active experimentation mode and converger learning style. However, no significant difference was found between the two groups on abstract conceptualization, mode assimilator learning style and accommodator learning style.

5-2 IMPLICATIONS OF THE FINDINGS

Scientific research leads to either theory building, extension of the corpus of knowledge and advancement of principles and generalization or helps improving the process or product or both. The same is true in case of educational research. The present study falls in the category of applied research being descriptive one; therefore, it has several educational implications not only to the students, teachers and educational administrators but also to the guidance workers, educational planners, curriculum designers and instructional material developers.

Royal (1993) has stated that one of the greatest benefit in using a learning style inventory and identifying students learning style preferences in the recognition and acceptance by both teachers and students that every one learns differently. As students learns to identify and understand how they learn best, so might they except more responsibility for their learning. As teachers identify and
understand how students learn best, they can create unique ways to accommodate learning styles.

Sternberg (1997) has stated five important educational implications of the concepts of thinking/learning style in general.

1. Teachers should be aware of thinking/learning style, which they encourage or finish.
2. Teachers should allow the students to know about the range of styles.
3. Teachers should use a variety of teaching assessment method to accommodate thinking/learning styles of the students.
4. Teachers should know about gender and cross-cultural differences in styles.
   For providing responsive instruction.
5. Teacher should use such extra curricular activity, which enhance quality of teaching and learning.

The above implications are fully applicable in context of the present study:

The findings of the present study indicated that gender differences did not exist with reference to any learning mode and learning style (except active experimentation learning mode and accommodator learning style). This implies that male and female educational disadvantaged students may be taught by the teacher without gender bias. All types of possible teaching activities may be carried out by the teachers in the classroom without any gender discrimination. Another finding related to learning style of educationally disadvantaged students in context of stream, educationally disadvantaged students particularly scheduled caste students indicated that science stream students showed more preference for learning through concrete experience than arts stream students. This finding calls more use of direct experience, recall of experience, lab experience, simulation, films, tapes and lectures with examples in science class. So that their academic achievement enhances to the optimum level. Other educationally disadvantaged group likes ST and OBC had the similar preference for all modes and styles of learning. It implies that both science and arts stream there is a need to accommodate complete range of learning styles in classroom transaction. The effect of academic stress and motivation was not observed on the learning styles.
of the educationally disadvantaged students. In another words educationally disadvantaged students having high and low level of academic stress and high and low level of academic motivation were found to have no significant difference in their learning modes and learning styles. It means the classroom teachers ignoring the level of academic stress and academic motivation may bore his teaching or their learning styles.

The findings related to learning modes and learning styles revealed that educationally disadvantaged students had more preference for learning through concrete experience (CE) mode and reflective observation (RO) mode. The findings hints at selection and use of such teaching strategies by the teachers which specially accommodate the above referred learning modes and diverger learning style. It implies in case of educationally disadvantaged students such type of teaching strategies need to be used more which have direct link with concrete experience and reflective observation. Svinicki and Dixon (1987) have suggested that use of laboratory observation, primary test given, simulation in games, field work, films, readings, problem sets and examples. Provide enriched concrete experience and use of Journals, Dissertation, Brain Storming though questions. Rhetorical questions and lectures provide good opportunity for reflective observation.

Apart from special attention to use of the above teaching strategies use of following teaching strategies may also be made for promoting abstract conceptualization and active experimentation. Among educationally disadvantaged students lecture, paper reading, model building, projects and analogies for abstract conceptualization and simulation, case study, laboratory, field work, projects and homework for active experimentation. By this way education of the disadvantaged students will fulfill the needs of Kolb’s experiential model of learning.

### 5-3 SUGGESTIONS FOR FURTHER RESEARCH

On the basis of enriched experience of conducting the present study, the following suggestions may be offered for further research in this area.
1. The present study of learning styles has been conducted on SC, ST, and OBC and General Caste Groups of +2 students, similar study may be undertaken on college students.

2. In the present study, tribal students have been taken from a segment of tribal areas in another study tribal students may be selected from complete tribal belt of Himachal Pradesh.

3. In the present study, Test of Academic Motivation and student stress have been used another study may use test of achievement motivation and anxiety.

4. In the present study, SES has not been considered. In another study, SES may be kept constant in all the groups and learning style differences may be studied.

5. Educationally advantaged and disadvantaged students may be identified on the basis of educational facilities and educational climate of the family and there after comparison of learning styles may be made.

6. Learning styles of prolonged deprived students may be explored in relation to personal, contextual and psychological factors.

7. Learning styles of educationally disadvantaged students may be explored in relation to their intelligence and creativity.

8. Learning styles of rural based and urban based students may be studied by considering their educational disadvantages and advantages respectively.

9. Learning needs of educationally disadvantaged students of various classes may be investigated by using tools of learning styles.

10. Learning styles of gifted and non-gifted groups in educationally disadvantaged may be compared.

11. Learning styles of learning disabled students may be explored interrelation to certain background factors.

12. Learning styles of educationally advantaged and educationally disadvantaged may be compared at school, college and university levels.
REFERENCES

