ABSTRACT

Education is a prerequisite for socio-economic development, particularly for the weaker sections who have all along been subjected to various kinds of deprivation and discrimination and therefore, stand in need of instant development. Education is a right and all citizens of the country should have access to it. The scheduled castes and scheduled tribes account for a quarter of the Indian population. It is through education that they can fully utilize the opportunities for socio-economic development since it opens to them various avenues of mobility and employment. Education is also an instrument of liberation and endows the deprived groups with confidence, courage and ability to resist exploitation. The scheduled castes and tribes, constitutes the poorest and most backward section of Indian society. Article 46 of the Indian constitution specially stated that “The state shall promote with special care the educational and economic interests of the weaker sections of the people and in particular of the scheduled castes and the scheduled tribes and shall protect them from social injustice and all forms of exploitation”.

EDUCATIONALLY DISADVANTAGED

What constitute educational disadvantaged? Who are the educational disadvantaged? What factors account for their educationally disadvantaged? Are these important aspects of educationally disadvantaged?

Educationally disadvantaged refer to the situation or the state of affairs that is characterized by a lack of opportunities for education, the absence or in adequacy of facilities for education and where such facilities do exists, their poor quality in terms of infrastructure, buildings, equipment, furniture, personnel and performance. More important is the kind of education that is made available to the people. If the education does not reflect the needs and aspirations of the people, these people remain in a strict sense, educationally disadvantaged. In other words, educational disadvantage refers both to the institutions and structures used to impart education and to those factors that are intrinsic to education itself. That is to its conception, content and quality. Throughout the region, women in general and those in rural areas in particular; people living in isolated inaccessible and remote areas in mountains and forests and people living in villages and small habitations do not have similar access to as good an education as others and, therefore, remain educationally disadvantaged. In addition, children belonging to tribal group’s sub-groups and nomadic groups; children coming from urban slums or small settlements; and people belonging to certain castes and caste-groups also constitute the educationally disadvantaged such as scheduled castes, scheduled tribes and other backward class
An analysis of the factor that account for the continuation of these groups as educationally disadvantaged brings out the social, cultural, economic and psychological dimensions of the problem and their interaction. In India, scheduled tribes remain as educationally disadvantaged group because of inaccessibility, poverty, social exploitation, isolation from the main stream and socio-discrimination. On the other hand scheduled castes suffer from the dual disabilities of severe economic exploitation and social discrimination. Most of the scheduled castes are first generation learners and victims of strong social attitudes against schooling.

Other backward classes also suffer from the dual disabilities of poverty and social discrimination. A large chunk of educationally disadvantaged comes from the rural population of the India. The Sex factor, however remain the primary cause and cuts across all disadvantaged groupings, like other developing countries, in India negative social attitude towards women education have kept this group the most backward and disadvantaged educationally.

**CONCEPT OF STYLES**

According to the Webster’s New World Dictionary a style is a distinctive or characteristic manner, or method of acting or performing. Styles represent a set of preferences. The style corresponds to a discrete notion of coherent singularity in a variety of contexts and has a wide appeal to human life.

**KOLB’S MODEL OF LEARNING STYLES**

Kolb (1978, 1981, 1984) has developed a model of learning styles. He holds that learning style construct consists of two dimensions: (a) Perceiving (b) Processing.

The first described concrete and abstract thinking and the second an active or reflective information processing activity. These two dimensions integrate to form the model which describes the four learning styles which are: (a) Diverger (b) Converger (c) Assimilator (d) Accommodator.

Kolb gave an experiential theory which is cyclic in nature. The Experiential cycle is used to extrapolate four adaptive learning modes:

(a) Concrete experience (CE)
(b) Reflective observation (RO)
(c) Abstract conceptualization (AC) and
(d) Active Experimentation (AE).

A learning style is conceived as an individual’s preferred method of learning. The cycle of four learning modes is a shown in figure 1.1.
The Characteristics of the four learning styles are as follows:

1. **The Converger**:
   A person with the converger style of learning seems to do best in the situations, conventional intelligence tests, where there is a single correct answer or solution to a question or problem. His knowledge is organized and he can focus it on specific problems. He is relatively unemotional and prefer to deal with things rather than people. The converger learners have narrow interests and often choose to be specialized in the physical science. The domain of converger’s learning abilities includes abstract conceptualization (AC) and active experimentation (AE). The persons with this style are interested in the practical application of ideas.

2. **The Diverger**:
   A person with the diverger style of learning performs better in the situations that demand for the generation of ideas, e.g. in brainstorming. Divergers are found to be emotional, imaginative and interested in people. Their interests are broad and tend to be specialized in the arts. A diverger persons’ domain of learning abilities includes concrete experience (CE) and reflective observation (RO). The greatest strength of a diverger lies in his imaginative ability. He has the ability to perceive concrete situations from many perspectives and to organize them into a complete whole.

3. **The Assimilator**:
   A person with the assimilator learning style excels in inductive reasoning in assimilating disparate observations into an integrated explanation. Like the converger, he is less interested in people and more concerned about abstract concepts, but he believes in the practical use of theories, which are logically sound and precise. An assimilator’s learning abilities domain includes abstracts conceptualization (AC) and reflective observation (RO). The greatest strength of an assimilator learner lies in his abilities to create theoretical models.
4. **The Accommodator:**

A person with the accommodator style of learning is able to adapt himself to specific immediate circumstance. He usually discard the theory or plans if they do not fix the facts. An accommodator tends to solve the problems in an intuitive, trial and error manner and rely heavily on others for information rather then his own analytic ability. He is best at concrete experience (CE) and active experimentation (AE). The greatest strength of an accommodator lies in doing things, in carrying out plans and experiments and involving him-self in new experiences. He tends to be more risk taker than the people with the other three learning styles.

**IMPORTANCE OF THE LEARNING STYLES**

Learning styles play an important role in the educational process. Following points reflect the importance of learning styles:

1. Learning styles provide a sound basis for formulating the groups of the students. Once the learning style of an individual is identified, it can be put in one of the four groups of learning styles and the education may be imparted to him accordingly.
2. Learning styles help the teacher in the selection of the most appropriate teaching strategies, style and tactics.
3. Learning styles are helpful in the enhancement of academic achievement of the learners.
4. They provide a basis for the individualization of instruction.
5. They are helpful in rendering assistance to the guidance and counseling persons.
6. Learning styles are helpful in building a conducive learning environment in the class and school.
7. Learning styles provide guidelines to the curriculum framers.
8. Learning styles are useful for the pre-service teachers.

Thus, it is obvious that the learning styles are very useful in the teaching learning process.

**NEED AND SIGNIFICANCE OF THE STUDY**

Recently, learning styles of the students have drawn the attention of many educators and researchers. Many researchers have expressed that learning style of the student is perhaps the single most important factor in his/her academic performance (**Dunn and Price, 1977; Robinson and Gray, 1974**). Some advocates of learning style movement (**Barbey and Swassing, 1979**) have present variability in student performance results not so much from discrepancies in intelligence but such deviations are due to different styles of learning. Learning styles have important bearing for classroom teacher, curriculum designer,
educational technologist, guidance and counseling workers and even educational administrators.

Generally, researchers on learning styles have been conducted on advantaged sections of the students. No research has been conducted so far on educational disadvantaged groups of students. Since learning styles are developed in the given socio-cultural environmental, it is more likely that educationally disadvantaged students show marked differences in learning styles form educationally advantaged students. If it is so, it will have important implications for education. The designing of educationally disadvantaged students and proper educational planning will facilitate their cognitive and academic development. Therefore, the present study will prove a great help in the education of educationally disadvantaged students.

Further, gender, stream, academic stress and academic motivation are considered important factors in the learning process. These variables may also affect the learning modes and learning styles of the educationally disadvantaged students. If the findings of the study confirm this will further render a help to the teachers in complementing the learning styles of the students of including sophistication in the instruction of the students who are educationally backward/disadvantaged.

In view of the above discussion, the problem of the study is stated as under:

“A STUDY OF LEARNING STYLES OF EDUCATIONALLY DISADVANTAGED STUDENTS IN RELATION TO CERTAIN PERSONAL, CONTEXTUAL AND PSYCHOLOGICAL VARIABLES”

OBJECTIVES

The following objectives will be persuaded in the study:

1. To find out the differences in learning modes and learning styles of three groups of educationally disadvantaged students (SC, ST and OBC).
2. To explore the differences in learning modes and learning styles of three groups of educationally disadvantaged (SC, ST and OBC) male students.
3. To investigate the differences in learning modes and learning styles of three groups of educationally disadvantaged (SC, ST and OBC) female students.
4. To study the gender differences in learning modes and learning styles of SC, ST and OBC students.
5. To find out the differences in learning modes and learning styles of three groups of educationally disadvantaged students (SC, ST and OBC) belonging to science stream.
6. To investigate the differences in learning modes and learning styles of three groups of educationally disadvantaged students (SC, ST and OBC) belonging to arts stream.
7. To explore the differences in learning modes and learning styles of SC, ST and OBC students.
8. To study the differences in learning modes and learning styles of three groups of educationally disadvantaged students (SC, ST and OBC) having high level of academic stress.
9. To ascertain the differences in learning modes learning styles of three groups of educationally disadvantaged students (SC, OBC and ST) having low level of academic stress.
10. To find out the academic stress related differences in learning modes and learning styles of three groups educationally disadvantaged students (i.e. SC, ST and OBC).
11. To explore the differences in learning modes and learning styles of three groups of educationally disadvantaged students (SC, ST and OBC) having high level of academic motivation.
12. To inquire into the differences in learning modes and learning styles of three groups of educationally disadvantaged students (SC, ST and OBC) having low level of academic motivation.
13. To find out the academic motivation related differences in learning modes and learning styles of three groups of educationally advantaged students (i.e. SC, ST and OBC) and educationally advantaged group of students.
14. To ascertain the differences in learning modes and learning styles of educationally disadvantaged and educationally advantaged groups.

HYPOTHESES

Since research studies have not been carried out on the proposed topic and related variables in the Indian context, the formulation of directional research hypotheses was not feasible. Therefore, 14 null hypotheses given below were framed for testing in the present study:

1. There will be no significant differences in learning modes and learning styles of three groups of educationally disadvantaged students SC, ST and OBC.
2. There will be no significant differences in learning modes and learning styles of three groups of educationally disadvantaged students SC, ST and OBC male students.
3. There will be no significant differences in learning modes and learning styles of three groups of educationally disadvantaged SC, ST and OBC female students.
4. There will be no significant gender differences in learning modes and learning styles of SC, ST and OBC students.
5. There will be no significant differences in learning modes and learning styles of three groups of educationally disadvantaged students i.e. SC, ST and OBC belonging to science streams.
6. There will be no significant differences in learning modes and learning styles of three groups of educationally disadvantaged students i.e. SC, ST and OBC belonging to arts stream.
7. There will be no significant stream differences in learning modes and learning styles of SC, ST and OBC students.
8. There will be no significant differences in learning modes and learning styles of three groups of educationally disadvantaged i.e. SC, ST and OBC students.
9. There will be no significant differences in learning modes and learning styles of three groups of educationally disadvantaged students i.e. SC, ST and OBC having low level of academic stress.
10. There will be no academic stress related significant differences in learning modes and learning styles of three groups of educationally disadvantaged students i.e. SC, ST and OBC.
11. There will be no significant differences in learning modes and learning styles of three groups of educationally disadvantaged students i.e. SC, ST and OBC having high level of academic motivation.
12. There will be no significant differences in learning modes and learning styles of three groups of educationally disadvantaged students i.e. SC, ST and OBC having low level of academic motivation.
13. There will be no academic motivation related significant differences in learning modes and learning styles of three groups of educationally disadvantaged students i.e. SC, ST and OBC.
14. There will be no significant differences in learning modes and learning styles of educationally disadvantaged group and educationally advantaged group of students.

SAMPLE

After defining the population and listing all the units, an investigator selects a sample of units from the list. A good sample must be as representative of the entire population as possible. Further, selected sample must be adequate to represent the characteristics of the population. Three factors may be kept in view for determining the size of an adequate sample: the nature of the population, the type of sampling design and the degree of precision desired.

A group selected from a larger population with the aim of yielding information about this population as a whole is termed as ‘sample’. A ‘Sample’ is a portion of a population which is selected for the purpose of study or investigation (Pandey, 1983).

A sample is a subset of population units consisting of three elements:
(i) The members or units selected
(ii) The information or data collected
(iii) Inference or generalizations made.

A select group of some elements from the totality of the population is known as the sample (Bhatnagar, 2002). Any group of people or observations which includes all possible members to that category is called population or Universe is the group to whom the researcher would like to generalise obtained results, he would like to make statements which are valid for this total group.

In the present study 352 educational disadvantaged (108 SC, 135 ST, and 109 OBC) and 210 educationally advantaged general caste comprised the sample. The sample was drawn by random cluster method from 20 Government Senior Secondary Schools of six districts of Himachal Pradesh.

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>1.</td>
<td>Hamirpur</td>
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<td>10</td>
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<tr>
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<tr>
<td>5.</td>
<td>Bilaspur</td>
<td>Govt. Sen. Sec. School, Hatwar</td>
<td>13</td>
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<td>7.</td>
<td>Mandi</td>
<td>Govt. Sen. Sec. School, Sunder Nagar</td>
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<td>8.</td>
<td>Mandi</td>
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<td>18.</td>
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<td>19.</td>
<td>Lahul &amp; Spiti</td>
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<tr>
<td>20.</td>
<td>Lahul &amp; Spiti</td>
<td>Govt. Sen. Sec. School, Udaipur</td>
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<td>Total</td>
<td></td>
<td></td>
<td>352</td>
<td>210</td>
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Table 3.2: Structure of the Selected Sample in Terms of Gender

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
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</thead>
<tbody>
<tr>
<td>SC</td>
<td>46</td>
<td>62</td>
<td>108</td>
</tr>
<tr>
<td>ST</td>
<td>72</td>
<td>63</td>
<td>135</td>
</tr>
<tr>
<td>OBC</td>
<td>71</td>
<td>38</td>
<td>109</td>
</tr>
<tr>
<td>GEN.</td>
<td>114</td>
<td>96</td>
<td>210</td>
</tr>
<tr>
<td>TOTAL</td>
<td>303</td>
<td>259</td>
<td>562</td>
</tr>
</tbody>
</table>

Table 3.3: Structure of the Selected Sample in Terms of Stream

<table>
<thead>
<tr>
<th></th>
<th>Science</th>
<th>Arts</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>SC</td>
<td>29</td>
<td>79</td>
<td>108</td>
</tr>
<tr>
<td>ST</td>
<td>24</td>
<td>111</td>
<td>135</td>
</tr>
<tr>
<td>OBC</td>
<td>34</td>
<td>75</td>
<td>109</td>
</tr>
<tr>
<td>GEN.</td>
<td>65</td>
<td>145</td>
<td>210</td>
</tr>
<tr>
<td>Total</td>
<td>152</td>
<td>410</td>
<td>562</td>
</tr>
</tbody>
</table>

Table 3.4: Structure of the Educationally Dis-advantaged Selected Sample in Terms of Academic Stress

<table>
<thead>
<tr>
<th>Edu. Dis-advantaged</th>
<th>HAS</th>
<th>AAS</th>
<th>LAS</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>SC</td>
<td>15</td>
<td>76</td>
<td>17</td>
<td>108</td>
</tr>
<tr>
<td>ST</td>
<td>24</td>
<td>95</td>
<td>16</td>
<td>135</td>
</tr>
<tr>
<td>OBC</td>
<td>25</td>
<td>63</td>
<td>21</td>
<td>109</td>
</tr>
</tbody>
</table>

Table 3.5: Structure of the Educationally Dis-advantaged Selected Sample in Terms of Academic Motivation

<table>
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<tr>
<th>Edu. Dis-advantaged</th>
<th>HAM</th>
<th>AAM</th>
<th>LAM</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>SC</td>
<td>15</td>
<td>76</td>
<td>17</td>
<td>108</td>
</tr>
<tr>
<td>ST</td>
<td>24</td>
<td>95</td>
<td>16</td>
<td>135</td>
</tr>
<tr>
<td>OBC</td>
<td>25</td>
<td>63</td>
<td>21</td>
<td>109</td>
</tr>
</tbody>
</table>

RESEARCH METHOD

The present study was conducted by descriptive survey method of research according to John. W Best (1977, p.15) “Descriptive research describes What is? it involves the description, recording, analysis and interpretation of conditions that now exist. It involves some type of comparison or contrast and may attempt to discover relationships that exist between existing non-manipulative variables”.
INSTRUMENTATION

The quality of data depends upon the characteristics of tools. In the present study three tools were selected for the data collection after asserting their reliability, validity, suitability and appropriateness they have been described in the following paragraphs.

DATA COLLECTION

First of all, Principals of concerned school were contacted by the investigator. After getting approval from the principal the test were administered on the subjects in the following order.
1. Kolb’s learning style inventory 3.5.1
2. Academic stress scale 3.5.2
3. Keel’s Academic Motivation Questionnaire 3.5.3

STATISTICAL TECHNIQUES

For analysis of the data, student ‘One Way ANOVA’ and t-test were used. In order to compute t-values, means and standard deviations were also computed. Significance of difference in mean scores of the two comparison groups was shown by bar diagrams.

EVALUATION OF ‘F’ AND ‘t’

The obtained ‘F’ and ‘t’ values were evaluated at .05 and .01 levels of significance.

ANALYSIS OF DATA

After collecting the relevant data with the help of suitable tools, statistical analysis was performed by applying one way analysis of variance (one way ANOVA) for testing the Null Hypotheses. In case of significant F-ratio, Post-hoc analysis was done with the help of 't' test and thereafter interpretations were made of statistical obtained results. The present chapter provides the description of analysis and interpretation of the data in a systematic and elaborative manner.

CONCLUSIONS

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

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.

**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.

**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.

**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.

**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.

**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.

**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.

**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.

**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.

**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.

**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.

**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. 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.
**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.

**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.

**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 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 home work for active experimentation. By this way education of the disadvantaged students will fulfill the needs of Kolb’s experiential model of learning.

REMEDIAL 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.