LEARNING STYLES OF TRIBAL AND NON-TRIBAL STUDENTS WITH INTERNAL AND EXTERNAL LOCUS OF CONTROL

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ABSTRACT

The study aimed at finding out the differences in learning styles of senior secondary students as a function of culture and locus of control. The actual sample comprised 320 subjects randomly drawn from an initial sample of 407 subjects (205 Tribal and 202 Non-Tribal). Data were collected by administering the Rotter's Locus of Control Scale and Kolb's Learning Style Inventory. Two-ways analysis of variance yielded that culture and locus of control had significant influence on learning styles of senior secondary students. But there was no evidence that there was significant interaction between the two variables with reference to learning styles.

Key Words: Learning Styles, Tribal, Non-Tribal, Students Locus of Control

Introduction

One of the most influential models of learning styles was developed by David Kolb in early 1970's. Since then his theory of experiential learning and his learning style inventory has generated considerable body of research. According to Kolb (1984) knowledge is created from combination of grasping experience and transforming it. Thus, learning process involved two major dimensions: perceiving and processing. The first concerns with concrete and abstract

thinking; and the second with reflective observation and active experimentation. The combination of two specific learning modes generates a unique learning style. For example concrete experience and reflective observation produce diverger learning style, reflective observation and abstract conceptualization create assimilator learning style , abstract conceptualization and active experimentation generate converger learning style, and active experimentation and concrete experience produce accommodation learning style. Each individual learner has preference for a learning style over the other. 'Learning style' has been defined by various authors differently. Dunn, Dunn and Price (1975) has defined Learning Style as those environmental, emotional, sociological and physical characteristics through which one learns most easily. Kolb (1984) defined learning style as relatively stable attributes or preferences or habitual strategies used by individual learner to organize and process information for problem solving. Keefe and Monk (1986) conceptualized learning style as the characteristic cognitive , affective and psychological behaviors that serves relatively stable indicators of how learners perceive , interact with and respond to learning environment . Schmeck (1988) viewed learning style as a student's predisposition to adopt a particular learning strategy across the learning tasks. Debelow (1990) held that learning style is the way people absorb, process and retain information. Vermunt (1996) defined learning style as a coherent whole of learning activities that student usually employ their learning orientations and mental modes of learning. Thus, it is evident from these definitions that a learning style is a unique way of an individual learner which he adopts or prefers to approach the learning tasks.

The concept of 'locus of control' first came into prominence with the publication of a monograph by Rotter (1966). According to him the locus of control refers to the degree to which an individual sees himself/ herself in control of life and the events which influence it. Those persons who see themselves as exerting significant influence over the course of their own lives are internals. On the other hand, persons tend to believe that events are determined by forces outside themselves (fate, chance, the government) are externals. Broadly speaking, locus of control can be recognized as one of the aspects of causal attributions which is receiving increased attention from many investigators today.

Review of Related Literature

Review of learning style research reveals that a few researchers have attempted to explore the impact of locus of control on learning styles of students using different inventories of learning styles. For example, Pandian (1983) reported that learning styles of college students measured through Grasha Reichmann's Student Learning Style Scale (s) were related with their locus of control. Meier, Mc Carthy and Schmeck (1984) concluded that there was a positive relationship between Deep Processing Style and Internal Locus of Control when learning styles were measured by Schmeck's Inventory of Learning Processes. Smalarz (1988) observed that a marginal relationship seems to exit between internal locus of control and assimilator style of Kolb's LSI. Schmeck, Geisler-Brenstein and Cercy (1991) studies on learning styles of undergraduate students administering revised Inventory of Learning Processes of Schemeck and Geisler –Brenstein . They found that methodical study scale and locus of control scale yielded positive and significant relationship.

Jonassen and Grabwosky (1993) found that externals were more avoidant and non-participants than internals in their learning styles when learning styles were assessed by Grasha Reichmann's Student Learning Style Scale(s). Verma (1994) and Verma (1996) did not observe any significant impact of internal – external locus of control over learning styles of University students using Kolb's Learning Style Inventory. All these studies have been conducted on students of college or university. No attempt so far has been made to investigate the influence of locus of control on learning styles of senior secondary students, particularly in context of tribal and non-tribal students. Therefore, the present study was designed to ascertain the difference in learning styles of senior secondary students of different cultures (Tribal and Non-Tribal) and different locus of control (Internal and External) as well as groups formed on the basis of culture and locus of control.

Objectives of the Study

1. To find out the differences in learning styles of tribal and non-tribal senior secondary students.
2. To find out the differences in learning styles of senior secondary students having internal and external locus of control.

3. To find out the differences in learning styles of senior secondary students as a function of culture (tribal / non-tribal) and locus of control (internal/external).

Hypotheses of the Study

1. There are significant differences in learning styles of tribal and non-tribal senior secondary students.
2. There are significant differences in learning style of senior secondary students having internal and external locus of control.
3. There are significant differences in learning style of senior secondary students as a function of culture (tribal / non-tribal) and locus of control (internal/external).

Method

The study was carried out by employing descriptive survey method research.

Sample

The sample of the study consisted of 205 Tribal and 202 Non-Tribal students of Himachal Pradesh. All students belonged to 12th class, studying in Govt. Senior Secondary Schools. Tribal students were drawn from four randomly selected institutions of Distt. Kinnaur and Non-Tribal students were drawn from four randomly selected institutions of Distt. Hamirpur. Random cluster technique of sampling was used in drawing the sample.

Tools Used

1. Kolb's Learning Style Inventory adopted in Indian context by Ritu Agarwal and Sujata Mitra (1998).
2. Hindi adaptation of Rotter's Internal-External Locus of Control Scale by Anand Kumar and S. N. Srivastava (1985).

Research Design

2×2 Factorial Designs were used as the purpose of the study was to determine the main and interaction effects of culture and locus of control on learning styles. Each cell of the design had 80 subjects randomly selected from the initial sample.

Statistical Technique

A multivariate statistical technique Two –Way Analysis of Variance was used for the analysis of data pertaining to learning styles.

Results

Table-1

Summary of Two-Way Analysis of Variance for Imaginative Learning Style

Symbol	Source of Variation	Sum of Squares	df	Mean Square	F-Ratio	Sig.
A	**Culture**	516.675	1	516.675	24.39	**
B	**LOC**	210.675	1	210.675	9.95	**
A×B	**Interaction**	3.675	1	3.675	0.17	**NS**
Error	**Within**	2457.1	116	21.182		
	Between	731.025	3			
	Total	**3188.125**	**119**			

**** Significant at .01 Level & NS= Not Significant**

Table-1.1

Mean Scores of Imaginative Learning Style in Respect of Various Groups Formed on the Basis of Culture (A) and LOC (B)

LOC (B) / Culture(A)	A1(Tribal)	A2(Non-Tribal)	Total
B1(HLC)	27.3	22.8	**25.05**
B2(LLC)	29.6	25.8	**27.7**
Total	**28.45**	**24.3**	

The Table-1 shows that F- ratio (24.39) obtained for imaginative learning style is highly significant (P<.01). It disclosed that tribal and non-tribal students were significantly different with regard to imaginative learning style. Further, it is clear from the Table-1.1 that the mean values of tribal students were higher on it (M=28.45>M=24.3). Hence, research hypothesis concerning difference in imaginative learning style due to culture (tribal/non-tribal) was accepted.

Table-2

Summary of Two-Way Analysis of Variance for Analytical Learning Style

Symbol	Source of Variation	Sum of Squares	df	Mean Square	F-Ratio	Sig.
A	**Culture**	190.008	1	190.008	10.35	**
B	**LOC**	170.408	1	170.408	9.28	**
A×B	**Interaction**	12.675	1	12.675	0.17	**NS**
Error	**Within**	2129.9	116			

	Between	373.092	3			
	Total	**2502.992**	**119**			

**** Significant at .01 Level & NS= Not Significant**

Table-2.1

Mean Scores of Analytical Learning Style in Respect of Various Groups Formed on the Basis of Culture (A) and LOC (B)

LOC (B) / Culture(A)	**A1(Tribal)**	**A2(Non-Tribal)**	**Total**
B1(HLC)	23.967	27.133	**25.55**
B2(LLC)	27	28.867	**27.93**
Total	**25.48**	**28**	

Table-2 indicates that the F-ratio (10.35) computed for analytical learning style is significant at .01 level. It showed that there was a significant difference in analytical learning style of tribal and non- tribal students. The Table-2.1 makes it clear that non-tribal students had more preference for analytical learning style than their counterparts tribal students (M=28>M=25.48).

Table-3

Summary of Two-Way Analysis of Variance for Precision Learning Style

Symbol	**Source of Variation**	**Sum of Squares**	**df**	**Mean Square**	**F-Ratio**	**Sig.**

A	**Culture**	437.008	1	437.008	28.95	**
B	**LOC**	37.408	1	37.408	2.48	**NS**
A×B	**Interaction**	5.208	1	5.208	0.35	**NS**
Error	**Within**	1750.967	116			
	Between	479.625	3			
	Total	**2230.592**	**119**			

**** Significant at .01 Level & NS= Not Significant**

Table-3.1

Mean Scores of Precision Learning Style in Respect of Various Groups Formed on the Basis of Culture (A) and LOC (B)

LOC(B) / Culture(A)	A1(Tribal)	A2(Non-Tribal)	Total
B1(HLC)	21.6	25	**23.3**
B2(LLC)	22.3	26.533	**24.42**
Total	**21.95**	**25.77**	

The Table-3 & 3.1 reflects that F-ratio (28.95) corresponding to precision learning style turned out to be highly significant (P<.01) and mean difference was in favour of non-tribal students (M=21.95<M=25.77). It led to the conclusion that there was a significant difference in precision learning style of both groups and non-tribal students had more inclination towards precision learning style than tribal students. Hence, research hypothesis pertaining to difference in precision learning style was accepted.

Table-4

Summary of Two-Way Analysis of Variance for Dynamic Learning Style

Symbol	Source of Variation	Sum of Squares	df	Mean Square	F-Ratio	Sig.
A	**Culture**	86.7	1	86.7	5.59	*
B	**LOC**	93.633	1	93.633	6.04	*
A×B	**Interaction**	1.2	1	1.2	0.08	**NS**
Error	**Within**	1797.267	116			
	Between	181.533	3			
	Total	**1978.8**	**119**			

*** Significant at .05 Level & NS= Not Significant**

Table-4.1

Mean Scores of Dynamic Learning Style in Respect of Various Groups Formed on the Basis of Culture (A) and LOC (B)

LOC(B) / Culture(A)	A1(Tribal)	A2(Non-Tribal)	Total
B1(HLC)	23.967	22.467	**23.22**
B2(LLC)	25.933	24.033	**24.98**
Total	**24.95**	**23.25**	

It is evident from the Table-4 and 4.1 that the F-Ratio (5.59) for dynamic learning style was significant at .05 level and mean difference favoured tribal group (M=24.95>M=23.25). From this it was inferred that tribal students had stronger preference for the use of dynamic learning style than non-tribal students. Hence, the research hypothesis in case of dynamic learning style was accepted.

Effect of locus of control was found to be significant on imaginative, analytical and dynamic learning style and mean difference was in favour of internal locus of control group for imaginative, analytical and dynamic learning style. It implies that senior secondary students who were internally oriented were higher than their counterparts having external locus of control. (F=9.95, F=9.28 & F=6.04). However, locus of control had no effect on precision learning style as both internally and externally oriented groups had more or less similar liking for precision learning style. Hence, research hypothesis was accepted in case of imaginative, analytical and dynamic learning styles and not in case of precision learning style.

As regards interaction effect of culture and locus of control on learning styles, no F-ratio came out to be significant (F=.017; F=0.17, 0.35 & .08). It implies that effect of culture was not dependent on locus of control on any of the learning styles .Hence, research hypothesis of significant interaction of culture and locus of control for learning style was not accepted.

Discussion of Results

The findings of the study reveal that tribal students had stronger preference for imaginative and dynamic learning styles whereas non-tribal precision students were more prone to the use of analytical and precision learning styles than their counterparts. These results do not get support from any study but may be justified in terms of their home environments. Tribal students get less academically and intellectual oriented environments in their homes in comparison to non-tribal students. This helps in the more development of analytical and precision learning styles among non-tribal students than their counterparts.

Although, no similar study is available to extend direct support to the finding of the present study, indirect support comes from the researches of the Meier , Mc Carthy and Schmeck

(1984) and Biggs (1985) who reported that deep learning approach was related to Internal locus of control . Smalarz (1988) concluded that there was marginal relationship between internal locus of control and assimilator (analytical) learning style. Diskowski (1991) found that abstract learning mode was linked with internal locus of control.

Conclusion

Learning styles of senior secondary students are significantly influenced by culture (tribal /non-tribal) and locus of control (internal / external) but no significant interaction effect seems to occur of culture and locus of control with regard to their learning styles.

Educational Implications

This study suggests that educators should use diverse learning strategies for tribal and non-tribal, internally and externally oriented students and they should match with their preferred learning styles. This will help them in empowering tribal and non-tribal students in various ways.

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