LEARNING STYLE PREFERENCES OF HINDI MEDIUM SCHOOL STUDENTS IN RELATION TO THEIR GENDER

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ABSTRACT

Men and women are different but do these differences extend to learning styles? This descriptive study examined learning styles preferences of Hindi medium students in relation to their gender. Keeping in the view of objective of the study seven hypotheses were formulated. Final sample comprising 416 subjects (165 Girls and 251 Boys) studying in Hindi medium senior secondary schools of Jaipur district. Sample was selected through random non-proportional sampling technique learning styles of the students were measured through Learning Style Inventory (LSI) developed and standardized by S.C. Agrawal (1983). Seven 2×2 contingency tables were organized for the data obtained and chi-square values were calculated. It was found that Female students shown significantly different preferences from their counterparts with regard to their preference for Individualistic vs. Non individualistic, Visual vs. Aural, field dependent vs. field independent, Short attention vs. span Long attention span, Motivation centered vs. Motivation non centered and Environment oriented vs. Environment free learning styles. Locus of causality of exercise shows no any significant differences among the three team game players viz Football, Basketball and Hockey.

Keywords: Learning Style, Hindi Medium, Senior Secondary Students, Gender.

INTRODUCTION:

Styles influence how students learn, how teachers teach, and how the two interact. Each person is born with certain tendencies toward particular styles, but these biological or innate distinctiveness are predisposed by culture, personal experiences, maturity level, and development. Style can be considered a "contextual" variable or construct because what the learner brings to the learning experience is as much a part of the context as are the important features of the experience itself. Each learner has distinct and consistent preferred ways of perception, organization and retention. These learning styles are cognitive, affective, and physiological behavior characteristic that serve as pretty good indicators of how learners perceive, interact with, and respond to the learning environment.
The term "Learning Style" is used in a variety of ways in the teaching and learning process. Generally, it refers to the uniqueness of each learner. Individual difference might include personality, mental processing, confidence, attitude, sensory intake processes or some complex alignment of these and other differences. It is usually supposed that the predominance of people favor some particular manner of interacting with, taking in, and processing stimuli or information. Keefe (1979) defines learning styles as the composite of characteristic cognitive, affective, and physiological factors that serve as relatively stable indicators of how a learner perceives, interacts with, and responds to the learning environment. Stewart and Felicetti (1992) define learning styles as those educational conditions under which a student is most likely to learn. Thus, learning styles are not actually concerned with "what" learners learn, but rather "how" they prefer to learn. It has been expected that teachers should appraise the learning styles of their students and get used to their classroom methods to best fit each student's learning style.

Men and women are different but do these differences extend to learning styles? Although several researchers have started to compile a database to clearly identify the female learning experience, there is not enough data yet to definitively answer questions comparing women's and men's learning styles. Girls and boys differ fundamentally in the learning style they feel most comfortable with. These differences derive both from basic physiological differences, such as differences in the ability to hear, and from differences in higher-level cortical functions. There are only a few researchers who made serious endeavors to understand relationship between learning style and gender. Though, the results of these studies are not steady and decisive. Clark (1984) Schaiper (1983), Verma (1991) and Erica A. Wehrwein et al (2007) found some association between learning style and gender but Nix (1983), Rice (1984), Yount (1988) Endres (2000) concluded learning style preferences independent from student’s gender.

Researchers have identified the role of learning styles in foreign language achievement. So far studies on the learning styles of Hindi medium senior secondary schools student’s with reference to their gender are concerned, they are negligible in number. By keeping above discussion in the mind this study was focused to assess gender differences in learning style preferences among Hindi medium senior secondary school students.
METHODOLOGY:

MATERIALS AND METHODS

Objective
To study learning styles preferences of male and female Hindi medium sr. sec. school students in relation with their gender.

Hypotheses
Keeping in the view of objective of the study, the following hypotheses were formulated:

1. Male and female Hindi medium school students preferences for flexible versus non flexible learning style are independent from their gender.
2. Male and female Hindi medium school students preferences for individualistic versus non individualistic learning style are independent from their gender.
3. Male and female Hindi medium school students preferences for visual versus aural learning style are independent from their gender.
4. Male and female Hindi medium school students preferences for field dependent versus field independent learning style are independent from their gender.
5. Male and female Hindi medium school students preferences for short attention span versus long attention span learning style are independent from their gender.
6. Male and female Hindi medium school students preferences for centered versus motivation non centered learning style are independent from their gender.
7. Male and female Hindi medium school students preferences for environment oriented versus environment free learning style are independent from their gender.

Delimitation
This study was conducted on male and female students studying in Class XI of Hindi medium senior secondary schools of Jaipur district of Rajasthan state.

Design of the study
The survey design was used to examine learning styles preferences of Hindi medium students in relation to their gender. It was quantitative in approach. Consequently, descriptive survey method was used to fulfill the objective of study.

The Sample
All the students studying in Class XI of Hindi medium senior secondary schools of Jaipur district of Rajasthan state constituted the population. It was not promising to collect the information on the complete population. By considering this fact at first total 12 schools of Jaipur district were selected by random sampling method. A representative sample of 416 (251 males and 165 females) was selected from selected schools. The students were selected through random stratified non-proportional sampling technique.

**Tool**

Learning Styles of the students were measured through Learning Style Inventory (LSI) developed and standardized by S.C. Agrawal (1983) which classified students in seven bi-polar learning styles. This inventory consisted of two 63 items. The test-retest reliability coefficient was calculated for each learning style. The coefficient of correlation ranged from 0.841 to 0.912 and indicated high level of reliability. The validity of the inventory was determined on the basis of objective validity estimation and experts’ ratings. Validity of LSI was also found quite satisfactory.

**Procedure**

The students were classified in two categories on the basis of their gender. The learning style inventory (LSI) was administered on both male and female students. The inventory was administered only when the subjects understood properly as how to record their responses to each item. Scoring was done with the help of respective scoring key. Consequently a separate score was obtained for each of learning styles.

**Statistical Technique Used**

To find out the association in the learning style preference of male and female students, seven 2×2 contingency tables were prepared for the data obtained and chi-square values were calculated.
RESULTS AND DISCUSSION

The obtained results have been presented in table 1 that follows:

Table 1
Chi-square values for learning style preference of male and female Hindi medium students

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Learning styles</th>
<th>GENDER</th>
<th>Chi-square value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>1.</td>
<td>Flexible</td>
<td>172</td>
<td>124</td>
</tr>
<tr>
<td></td>
<td>Non flexible</td>
<td>79</td>
<td>41</td>
</tr>
<tr>
<td>2.</td>
<td>Individualistic</td>
<td>73</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>Non individualistic</td>
<td>178</td>
<td>140</td>
</tr>
<tr>
<td>3.</td>
<td>Visual</td>
<td>212</td>
<td>152</td>
</tr>
<tr>
<td></td>
<td>Aural</td>
<td>39</td>
<td>13</td>
</tr>
<tr>
<td>4.</td>
<td>Field dependent</td>
<td>164</td>
<td>125</td>
</tr>
<tr>
<td></td>
<td>Field independent</td>
<td>87</td>
<td>40</td>
</tr>
<tr>
<td>5.</td>
<td>Short attention span</td>
<td>102</td>
<td>149</td>
</tr>
<tr>
<td></td>
<td>Long attention span</td>
<td>97</td>
<td>68</td>
</tr>
<tr>
<td>6.</td>
<td>Motivation centered</td>
<td>209</td>
<td>148</td>
</tr>
<tr>
<td></td>
<td>Motivation non centered</td>
<td>42</td>
<td>17</td>
</tr>
<tr>
<td>7.</td>
<td>Environment oriented</td>
<td>122</td>
<td>96</td>
</tr>
<tr>
<td></td>
<td>Environment free</td>
<td>129</td>
<td>69</td>
</tr>
</tbody>
</table>

* Not Significant  ** Significant

Table 1 apparent that Chi-square value of 2.129 obtained in respect of students with male and female for their preferences for flexible vs. non flexible learning style is not significant (even at .05 of confidence). This indicates the fact that male and female Hindi medium school students was not found to be significantly associated to their preferences in case of flexible vs. non
flexible learning style. Alternatively it may be stated that no significant difference was found between male and female students with regard to their preferences for flexible vs. non flexible learning style. Consequently the hypothesis of independence concerning contingency tables 1 was accepted.

Table 1 further revealed that Chi-square values of 10.731, 5.339, 5.096, 13.144, 3.389 and 3.660 came out to be significant at .05 of confidence. By means it may be accomplished that male students demonstrate significant differences in preference for individualistic vs. non individualistic, visual vs. aural, field dependent vs. field independent, short attention span vs. long attention span, motivation centered vs. motivation non centered and environment oriented versus environment free learning styles from their counterparts. Consequently the hypotheses of independence regarding contingency tables 2, 3, 4, 5, 6 and 7 were not accepted.

Frequencies of contingency table-7 point out that male student are inclined to show more inclination for Environment free learning style while female students exhibited their more preferences for environment oriented learning style.

Table 1 also manifest that both male and female preferred to exhibit more disposition for flexible, non individualistic, visual, field dependent, short attention span, motivation centered learning styles than Non flexible, Individualistic, Aural, Field independent, Long attention span, Motivation non centered learning styles respectively.

Though pattern of preferences does not appeared the same while female students inclined to show more inclination for non flexible, non individualistic, visual,field dependent, short attention span, motivation centered and environment oriented learning styles.

Thus findings of the present study show that Female students shown significantly different preferences from their counterparts with regard to their preference for Individualistic vs. Non individualistic, Visual vs. Aural, field dependent vs. field independent, Short attention vs. span Long attention span, Motivation centered vs. Motivation non centered and Environment oriented vs. Environment free learning styles.

This finding gets support from studies conducted by some researchers. Schaiper (1983) focused on the measurement of individual perceptual learning styles of male and female university student volunteers majoring in some field of human services. Gender appears to be
significant variable related to perceptual learning style. Clark (1984) revealed that Visual learning mode had a moderate correlation with the sex of female subjects. T-test values displayed a significant difference between the scores of males and females on the haptic learning mode as the primary learning style for both males and females. Erica A. Wehrwein et al (2007) found that majority of male and female students have significantly different learning styles. It is the responsibility of the instructor to address this diversity of learning styles and develop appropriate learning approaches.

Contradicting to above Nix (1983) found no significant differences in the sample between males and females, for the four age groups, or the six education groups for seven learning styles on both the MMPALT II and the PMPS. Rice (1984) found no significant differences between males and females on the MMPALT II. However significant differences appeared on the PMPS scores by sex in the haptic element. Yount (1988) Male and female students in higher education, as groups, have the same perceptual learning strengths and weaknesses. Endres (2000) Gender was not significantly related to the MAT. Above all studies had been conducted in deferent conditions i.e. countries, using different tool of measures.

By keeping above discussion in mind investigator recommended that more research studies should be carried out on the same line to have more affirmation in generalizations regarding the association of learning style preferences and gender of Hindi medium Senior Secondary School students.

**EDUCATIONAL IMPLICATIONS**

Students have specific learning style preferences, and these preferences may be diverse between male and female students. Understanding a student's learning style preference is a vital reflection when designing classroom instruction. The findings of the study have imperative inference for organizing curriculum, instruction and assessment for both male and female students.

Present study suggests that male students shown significantly different preferences from their counterparts with regard to their preference for for individualistic vs. non individualistic, visual vs. aural, field dependent vs. field independent, short attention span vs. long attention
span, motivation centered vs. motivation non centered and environment oriented vs. environment free learning styles.

The preferences of majority of both male and female students were found prefer flexible, non individualistic, short attention span and motivation centered learning styles, suggests that teacher should ensure such learning situations that demand patter of various approaches and sources to meet learning related challenges. Group based instructional strategies may helpful to the non individualistic students. Same time teacher concerned should make efforts to encourage independence and self confidence in learning. Preference towards Short attention learning style suggests that students should be given primarily easy and simple projects. Period span should not be more than 30 to 40 minutes and daily schedule should be design accordingly with appropriate recess. This further suggests that to make sure sustained interest and involvement over a period of time the instructional plan need to focus on cognitive processing, reasoning and problem solving. Both male and female students should be rewarded for their triumph. By asking them finding solutions of exigent problems, their intrinsic motivation should be developed.

Since both male and female students were found prefer visual learning style over Aural learning style, teacher of these students should be encouraged for using written and visual support material.

The preference of both male and female Hindi medium students tended to be more field dependent rather than field independent. It suggests that field dependent learners perform optimally when given guidance that emphasizes key information and draws attention to necessary cues. They learn most efficiently when cues are equally salient and relevant. Spectator-like approach to learning may be best for these learners.

Female students were found to have environment oriented learning style. It suggests that teacher should ensure advantageous environment such as proper light, ventilation, seating arrangements and silence etc. which support the learning of the Female students. Alternatively male Hindi medium students should be encouraged to be more environments oriented.

Research on the field dependence-independence learning style establishes its influence on learning and students' outcomes across academic disciplines and at all s of schooling. Field dependent learners generally perform less well than field independent individuals in most
instructional environments. Review of literature suggests that field dependent learners may perform well in hypermedia based environments configured to support their learning needs. Field dependent learners were expected to solve the puzzles more quickly and accurately when they were able to interact with the jigsaw puzzle. The interactive treatments provided by the program did not improve the performance of field dependent individuals as expected.

References


