



Study of Learning Styles among Secondary Students

KEYWORDS

learning style, secondary, motivation, circumstantially, visual, group

Dr. Chetna Pandey

Department of Education, University of Allahabad

ABSTRACT

A Learning style may be defined as a distinctive and habitual manner of acquiring knowledge skills or attitudes through study or experience. This may be contrasted with a learning strategy which may be defined as a 'plan of action' adopted in the acquisition of knowledge, skills or attitudes through study or experience. It is better to build children than to repair adults. For which one of the primary considerations we should deal with is child's learning style. It is crucial for parents and teachers to understand that each child has unique learning style that should be the bases for an effective learning. Different learning styles require different approaches and techniques. Unlike traditional educational approaches that make use of general concepts, modern learning methods focus on a student's specific behavior. Development of comprehensive environmental education programs based on child's learning behavior will help in maximizing child's potential and enhancing his or her environmental attitude.

INTRODUCTION

Several characteristic of the learner are often cited as factors which create an impact on the efficiency and effectiveness of learning in education, experience, levels of numeracy and literacy, motivation, learner's self-concept, learning-styles and so on. 'Gagne' has identified motivation and individual differences as two important conditions which can affect the outcome of learning. 'Buckley and Caple' while discussing learning styles had considered it as an important factor in the learning process at the individual level. The outcomes of the learning process may be considered at four levels-

- Learner's reaction to the learning event.
- Acquisition of new knowledge, skills or attitudes
- Ability to apply new learning in a work situation.
- Measurable effects of learning on organizational performance.

A significant number of theorists and researchers (Kolbe, Honey & Mumford) have argued further that learning styles are not determined by inherited characteristics but develop through experience. Learning styles are therefore not necessarily fixed, but can change overtime, even from one situation to the next. Theorists such as Erntwistle on the other hand, are more interested in how students tackle a specific learning task (learning strategy) than any habitual preference (learning style). What these authors have in common is an emphasis is not simply on the learner but on the interaction between the learner, the context and the nature of the task. Indeed Bloomer and Hodkinson (2000) have argued that learning styles are only a minor factor in determining how learners react to learning opportunities: the effects of contextual, cultural and relational issues are much greater.

Therefore if learning styles are not fixed personality traits, the emphasis should shift from accommodating learning styles that help in encouraging a balanced approach to learning and perhaps more importantly an explicit awareness for the range of approaches available to the learner. Even among authors who question the validity of learning styles as a concept, most agree that there is a benefit in enabling learners to reflect on how they learn. Thus it

can be concluded that learning style is the way in which a person sees or perceives things best and then processes or uses what has been seen, thus affecting the attitude and interest of a person.

Objectives:

- To compare individual vs. group learning style of male and female students of secondary level.
- To compare long term vs. short term learning style of male and female students of secondary level.
- To compare circumstantially dependent vs. independent learning style of male and female students of secondary level
- To compare physical environment dependent vs. independent learning style of male and female students of secondary level
- To compare learning style in relation to internal vs. external motivation of male and female students of secondary level.
- To compare verbal vs. visual learning style of male and female secondary students.

Hypotheses:

- Male and female secondary students do not differ significantly from one another in respect of individual vs. group learning style.
- Male and female secondary students do not differ significantly from one another in respect of long term vs. short term learning style.
- There is no significant difference in circumstantially dependent vs. independent learning style of male and female students of secondary level
- Male and female secondary students do not differ significantly from one another in respect of physical environment dependent vs. independent learning style
- Male and female secondary students do not differ significantly from one another in respect of learning style in relation to internal vs. external motivation
- Male and female secondary students do not differ significantly from one another in respect of verbal vs. visual learning style.

REVIEWS OF RELATED LITERATURE

Montgomery and Groat (2009) researched on 'Students learning style and their Implications for Teaching' has discovered that an understanding of learning styles is fundamental to our individual approaches to teaching. It can have an impact on the teaching approaches of all faculties.

Hayes and Allenson (2005) worked on the 'The implications of learning styles for training and development' explores the possibility of creating a match by promoting learner adaptability or modifying the trainer style.

Ross and Lubow (2004) in their study "Are learning styles a good prediction for integrating instructional technology into a curriculum" have found no significant difference between gender, learning style and attitude towards technology.

Diaz and Cartnal (1999) have studied 'Students' learning style in two classes- online distance learning and equivalent on campus" ,stated that use of wide variety of teaching methods does not cover learning preferences of all the students.

Paul Ramsden (1997) has researched on 'The context of learning in academic department' and suggested that greater variety in learning task and in forms of teaching would be beneficial to students in all the subject areas.

ANALYSIS AND INTERPRETATION OF DATA

Study of learning styles attitude among male and female students at secondary level.

Table-1 Mean, standard deviation, and t-ratios showing the differences in learning styles of male and female students.

S.No.	Learning styles	Male (N=442)		Female (N=324)		D	t-ratio
		Mean	SD	Mean	SD		
1.	Individual vs. group	5.409	1.798	5.089	1.576	.010	2.57*
2.	Long term vs. Short term	5.873	1.807	5.753	1.603	.330	0.095
3.	Circumstantially dependent vs. independent	6.585	1.688	6.604	1.617	.868	0.165
4.	Physical environment dependent vs. independent	4.970	1.647	5.074	1.583	.397	0.846
5.	In relation to internal vs. external motivation	6.217	2.789	6.50	1.564	0.14	1.692*
6.	Verbal vs. Visual	5.346	1.781	4.932	1.761	.001	3.16*

Table-1 shows that mean scores on learning styles: 1 *Individual vs. Group* for male students is 5.4095 and for a female student is 5.08951 and the value of t-ratio is 2.57. Mean scores on learning style: 2 *long term vs. short term* for male students is 5.8733 and for female students is 5.75309. Value of t-ratio is 0.095. Learning style: 3 *circumstantially dependent vs. independent* have mean scores for male students 6.5859 and 6.60494 for female students. Value of t-ratio is 0.165. Mean scores on learning style: 4 *physical environment dependent vs. independent* for male students is 4.97059 and for female students is 5.07407. Value of t-ratio is 0.846. Mean scores on learning style: 5 *in relation internal motivation vs. external motivation* for male students is 6.21719 and for female students is 6.5. Value of t-ratio is 1.694 scores on learning style: 6 *verbal vs. visual* for male students is 5.3461 and for female students is 4.9321. Value of t-ratio is 3.16.

For learning styles :2, 3 & 4 t-ratios are not significant at 0.05 level while for the rest of the learning styles, the value of t-ratio are significant at 0.05 level. It means that as compared to learning styles: 1, 5 and 6 students with learning styles: 2, 3 and 4 do not differ from one another,

METHODOLOGY:

Sample

The sample for the present study comprises of 766 male and female students of secondary level.

Tools used

Learning Style Inventory:

Learning style was measured with the help of Learning Style inventory developed by Kamlesh Jha. In this inventory 60 statements were given, which are related to student's style of learning. The answer for each statement should be given as either 'yes' or 'no' in the box provided in front of the statement. Neither of the answer given by the student is right or wrong. In both the cases, it refers to any one dimension of a learning style. Altogether there are six learning styles with each having two dimensions in the inventory which are as follows:

- Individual vs. Group
- Long term vs. Short term
- Physical environment dependent vs. independent
- Circumstantially dependent vs. independent
- In relation to internal motivation vs. external motivation
- Verbal vs. visual

Statistics used

Product Moment Co-efficient of Correlation has been computed to find out the various learning styles of boys and girls at secondary level.

thus null hypothesis stands accepted. Furthermore male and female students with LS 1, 5 & 6 has t-ratio significant at .05 levels; therefore null hypothesis for them is rejected. So it can be inferred that male and female student differ from one another on learning styles, 1, 5 and 6.

CONCLUSION

It has found that child's best learning occurs individually with hands on interactive play and self-discovery rather than on trying to impart knowledge on to them. It has been seen that children have a natural curiosity that require direct sensory experience rather than conceptual generalization.

Children experience the natural environment differently than adults. Adults usually see the nature as background for what they are doing as a visual, aesthetic experience.. In this study it was found that visual learning style as compared to verbal is more effective developing environmental attitude of child.

It is better to build children than to repair adults. For which one of the primary considerations we should deal

with is child's learning style. It is crucial for parents and teachers to understand that each child has unique learning style that should be the bases for an effective learning. Different learning styles require different approaches and techniques. Unlike traditional educational approaches that make use of general concepts, modern learning methods focus on a student's specific behavior. Development of comprehensive environmental education programs based on child's learning behavior will help in maximizing child's potential and enhancing his or her environmental attitude.

REFERENCE

- Bhatnagar, Mohima (2005): The study of learning styles of Internal users an Non-users, M.Ed. dissertation, University of Allahabad
Cano Jamie(1999):The relationship between learning style, academic major, and academic performance of College students, Ph.d., Journal of Agriculture Education,40 (1), 19-23. Dangwal Ritu and Mitra Sugata, J. (1998): Construction and validation of a learning style inventory test for use in India psychological researcher, 42(3),138-145. Giles Emily, Pitre Sarah and Womack Sara (2009): "Multiple Intelligence and learning styles from emerging perspectives on learning, teaching and technology". Ph.d., Department of Educational Psychology and Instructional technology, University of Georgia. Hayes, John & Allenson, Christopher. W.(2005): "The implication of learning styles training and development : A discussion of the matching hypothesis." British Journal of Management, 7(1), 63-73. Sadler Engine Smith (1996): Learning styles : a holistic approach, Journal of European Industrial Training,20(7),29-36.