

## **Learning Style and Academic Achievement of Adolescent**

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### **ABSTRACT**

The purpose of this study was to examine the Learning Style and Academic Achievements of children of working mothers and children of non-working mothers. A sample of 100 children of working mothers and children of non-working mothers participated in this study and these were selected randomly from the various Govt. Schools of district Budgam. Learning Style Inventory prepared by Rita Dunn, Keneth Dunn and Gary E. Prince were used to measure Learning Style of the adolescent students and academic achievement consider the aggregate percentage of marks each student were noted from the office records of the sample schools. The study revealed that there is a significant difference between adolescent boys and girls of learning style. girls achieved higher mean score as compared to adolescent boys on composite score of learning style and it was also found that there is a significant difference between adolescent boys and girls on Academic achievements.

**Key Words :** Learning style, Academic achievement, Adolescent, Boys and girls

### **INTRODUCTION**

Research about learning style began to develop several decades ago from several different directions. These included early studies on cognitive growth, the areas of the brain related to intelligence and behaviour, and the influence of school environmental and social factors on students (American Association of School Administrators, 1991). Learning style can be defined, classified, and identified in many different ways. Benjamin Bloom (1956) emphasized learning from cognitive, affective, and psychomotor skills. Anthony Gregorc (1978) based learning on perceptual preferences, concrete and abstract, 20 and ordering preferences, sequential and random. David Kolb (1984) defined the way people learn through 'feelings' or through 'thinking'.

The concept of learning style has a long history though the last century and has its roots in the early pragmatist, philosopher William James and the psychology of Carl Gusta Jung. Learning style are closely related to and draw, upon research in cognitive style, epistemology, brain physiology, cultural study and learning theory.

Learning style are the ways in which each person begins to concentrate on, process and retain new and difficult information through different perceptual channels. Learning style pertain to the person as an individual and that differentiate him from someone else. The way in which an individual characteristically acquires, retains and retrieves information are collectively termed the individual's learning style. It is generally assumed that learning style refer to beliefs, preferences and behaviours used by individuals to aid their learning in a given situation.

Many learning style theories have been put forward in different ways. James and Gardner (1995) and Brain (1998) put forward, perceptual, cognitive and affective learning style theories.

A specified level of success on a learning task or a certain level of proficiency in any work is called academic achievement. Educational or academic achievement is a specified level of attachment in academic work as evaluated by teachers or standardized tests or by a combination of both. Achievement test is a test of maximum achievement possible for an individual in an activity. Achievement tests measures the performance

of individual after undergoing a course of study.

Trow (1956) defined Academic achievement as “ knowledge attaining ability or degree of competence in school tasks usually measured by standardized tests and expressed in grade or units based on pupil’s performance.

Sinha (1970) observers that academic achievement means, students whose academic performance is superior in the form of high percentage of marks are taken as successful candidates. On the other hand, students who fail in the previous examination and obtain low divisions in their examination are considered as individuals who have failed in their attainments.

**Significance of the study:**

In the learning environment, many educators are becoming aware that students. Emotional intelligence should be incorporated and embraced in the classroom. When a student’s emotional and social skills are addressed, academic achievement of the student increases and interpersonal relationships improve. In the workplace, there is a great demand for individuals to perform effectively emotionally and cognitively.

In educational institutions, success is measured by academic performance or how well a student meets standards set by the educational institution. As a carrier, competition grows ever fiercer in the working world, the importance of students doing well in schools has caught the attention of parents, legislations and government education departments alike.

Although education is not the only road to success in the working world, much effort is made to identify, evaluate track and encourage the progress of students in schools. Parents care about their child’s academic performance because they believe good academic results will provide more carrier choice and job security. Schools though invested in same reason are also often influenced by concerns about the school’s reputation and the possibility of monetary aid from government institutions, which can hinge on the overall academic performance of the school.

Academic achievement is of paramount importance. It has been indicated that a good number of variables such as personality characteristics of the learners, the organizational climate of the school, curriculum planning, teaching-learning set up, variables arising out of home influence achievement in different degrees. Each of them is actually a cluster of variables which individually or on interaction with other have their influence on

achievement. In short, we can say that both nature and nurture play a combine role in making an achieving individual.

**Objectives of the present study:**

The following objectives were formulated for the present study work:

1. To study the leaning style of children of adolescent boys and girls.
2. To study the academic achievement of children of adolescent boys and girls
3. To compare children of adolescent boys and girls on learning style.
4. To compare children of adolescent boys and girls on academic achievement.

**Hypotheses:**

The following hypotheses have been formulated for the present research work:

1. There is no significant difference between adolescent boys and girls on learning style.
2. There is no significant difference between adolescent boys and girls on their academic achievement.

**Operational definitions:**

**Learning style:**

Learning Style may be defined as the individual learner’s behavioural characteristics related to how the learner’s process information and integrates it into their own knowledge base. For the purpose of the study learning style inventory is measured by Rita Dunn, Kenneth Dunn and Gary E.

**Academic achievement:**

Academic achievement of children’s of adolescent boys and girls refers to knowledge attained and skills developed in the school subjects.

**METHODOLOGY**

**Sample:**

The sample for the present study consists of 60 adolescent students (30 boys and 30 were girls). The sample of the study selected randomly from different schools of district Srinagar.

The breakup of the sample are as under:

Group	N	Total
Adolescent boys	50	50
Adolescent girls	50	50

**Tools used :**

The following tools are used in the present study:

1. Learning Style Inventory prepared by Rita Dunn, Keneth Dunn and Gary E. Price were used to measure Learning Style of the children of adolescent boys and girls.
2. Academic Achievement of the students was collected by giving them self-constructed information blank in which they had to give the aggregate percentage of marks.

- Mean
- S.D
- t-test

**Description of tools:**

**Learning style inventory:**

The learning style Inventory (LSI) developed by Rita Dunn, Keneth Dunn and Gary E. Prince is a multidimensional ‘instrument that identifies the conditions under which individual are more likely to learn. This is a self-reporting tool that assess an individual’s preference for conditions of learning,. According to the authors, the preferences for different conditions comprise the learning style. This inventory consists of 100 statements that are categorized as aspects and elements.

**Aspects and elements of learning Style questionnaire (LSQ)**

22 elements are classified under four aspects *i.e.*

- (i) Environmental   (ii) Emotional
- (iii) Sociological   (iv) Physical

**Statistical treatment:**

To achieve the objectives of the study, the data collected was statistically analyzed using the following technique;

**RESULTS AND DISCUSSION**

The Table 1 shows the mean comparison between adolescent boys and girls on environmental stimulus dimension of learning style. The calculated t-value 1.46 is less than the tabulated t-value (1.96), which depicts that there is no significant difference between adolescent boys and girls on environmental stimulus component of learning style.

The Table 2 shows the mean comparison between adolescent boys and girls on emotional stimulus of learning style. The calculated t-value 7.68 exceeds the tabulated t-value (2.58) at 0.01 level of significance which depicts that there is a significant difference between adolescent boys and girls on emotional stimulus dimension of learning style. The table further reveals that children of adolescent girls achieved higher mean score (28.12) as compared to children of adolescent boys on emotional stimulus component of learning style.

The Table 3 shows the mean comparison between adolescent boys and girls on sociological stimulus of learning style. The calculated t-value 1.66 is less than the tabulated t-value (1.96), which depicts that there is no significant difference between adolescent boys and girls on sociological stimulus of learning style.

The Table 4 shows the mean comparison between adolescent boys and girls on physical stimulus of leaning style. The calculated t-value 4.6 exceeds the tabulated t-value (2.58) at 0.01 level of significance which depicts that there is a significant difference between adolescent

**Table 1 : Showing the mean comparison of adolescent boys and girls on Environmental stimulus component of learning style**

Groups	Mean	SD	t- value	Significance
Adolescent Boys	24.21	4.62	1.46	Insignificant
Adolescent Girls	25.19	4.97		

**Table 2 : Showing the mean comparison of adolescent boys and girls on Emotional stimulus component of learning style**

Groups	Mean	SD	t- value	Significance
Adolescent Boys	23.28	4.98	7.68	Sig. at 0.01 level
Adolescent Girls	28.12	4.10		

**Table 3 : Showing the mean comparison of adolescent boys and girls on Sociological stimulus component of learning style.**

Groups	Mean	SD	t- value	Significance
Adolescent Boys	23.7	4.66	1.66	Insignificant
Adolescent Girls	24.4	4.28		

**Table 4 : Showing the mean comparison of adolescent boys and girls on Physical stimulus component of learning style.**

Group	Mean	S.D.	t- value	Level of significance
Adolescent Boys	25.98	5.51	4.6	Sig. at
Adolescent Girls	26.21	5.15		0.01 level

**Table 5 : Showing the mean comparison of adolescent boys and girls on composite scores of learning style.**

Groups	Mean	SD	t- value	Significance
Adolescent Boys	33.66	7.21	9.73	Sig. at
Adolescent Girls	42.91	6.48		0.01 level

**Table 6 : Showing the mean comparison of adolescent boys and girls on Academic achievement (N =200)**

Groups	Mean	SD	t- value	Significance
Adolescent Boys	53.50	6.40	7.73	Sig. at
Adolescent Girls	62.19	9.36		0.01 level

boys and girls on physical stimulus of learning style. The table further reveals that adolescent girls achieved higher mean score (26.21) as compared to adolescent boys on physical stimulus component of learning style.

The Table 5 shows the mean comparison between adolescent boys and girls on composite score of learning style. The calculated t-value 9.73 exceeds the tabulated t-value (2.58) at 0.01 level of significance which depicts that there is a significant difference between adolescent boys and girls of learning style. The table further reveals that adolescent girls achieved higher mean score (42.91) as compared to adolescent boys on composite score of learning style. Thus from the confirmation of the results from the above table the hypotheses No. 1 (Chapter 1) which reads as, “There is no significant difference between adolescent boys and girls on learning style” stands rejected.

The Table 6 shows significance of mean difference between adolescent boys and girls on Academic Achievement. The calculated t-value 7.73 exceeds the tabulated t-value (2.58) at 0.01 level of significance which depicts that there is a significant difference between adolescent boys and girls on Academic achievements. As mean score favours adolescent girls (62.16) which indicate that children of adolescent girls have better academic achievement as compared to adolescent boys. Thus from the confirmation of the results from the above table the hypotheses No. 2 (Chapter 1) which reads as, “There is no significant difference between adolescent male and female on Academic Achievement” stands rejected.

**Conclusion:**

On the basis of analysis, interpretation and discussion of the results presented in the foregoing chapters, certain meaningful conclusions have been drawn which are reported as under:

1. It was found that there is no significant difference between adolescent boys and girls on environmental stimulus component of learning style.
2. It was found that there is a significant difference between adolescent boys and girls on emotional stimulus dimension of learning style.
3. It was found adolescent girls achieved higher mean score as compared to children of adolescent boys on emotional stimulus component of learning style.
4. It was found that there is no significant difference between adolescent boys and girls on sociological stimulus of learning style.
5. It was found that there is a significant difference between adolescent boys and girls on physical stimulus of learning style.
6. It was found adolescent girls achieved higher mean score as compared to adolescent boys on physical stimulus component of learning style.
7. It was found that there is a significant difference between adolescent boys and girls of learning style.
8. It was found adolescent girls achieved higher mean score as compared to adolescent boys on composite score of learning style.
9. It was found that there is a significant difference between adolescent boys and girls on Academic achievements.
10. It was found adolescent girls have better

academic achievement as compared to adolescent boys.

## REFERENCES

- Agarwal, Archana (2002). Some Correlates of Academic Achievement. *Indian J. Educational Res.*, **31** : 75-76.
- Ahmad, R., Piccoli, G and Ives, B. (1998). Effectiveness of virtual learning environments in basic skills business education: A field study in progress, *Proceedings of the International Conference on Information Systems*, **20** : 352-357.
- American Association of School Administrators (1991). *Learning style: Putting research and common sense into practice*. Virginia: American Association of School Administrators.
- Bostrom Lena (2011). Students' Learning Style Compared with their Teachers' Learning Style in Secondary Schools *Institute for Learning Style Journal;* Volume **1**, Spring 2011 pp. 17
- Cano Garcia, Francisco, Hughes Elaini Hewitt (2000). *Learning and thinking style; An analysis of their interrelationship influence on academic achievement. Educational Psychology*, **20** (4).
- Claxton, C.S. and Murrell, P.H. (1987). Learning style: Implications for improving educational practices. Washington D.C.: ERIC Clearinghouse on Higher Education (ERIC Document Reproduction Service No. ED293478).
- Cook, J., Matthew, B.A. Fairfield (2010). Learning Style Predicting College Adjustment; An exploratory study of learning style as a predictor of college academic adjustment; *J. Learning Style & College Adjustment* **2**
- Delialioglu, Fatma (2003). "The Role of Gender and Learning Style on 10<sup>th</sup> Grade Student's Kinematics Graphing Skills" *M.Ed. Dissertation, Middle East Technical University*.
- Dunn, R. and Dunn, K. (1999). *The complete guide to the learning-style in-service system*.
- Eyyam Ramadan Nazan Dogruer (2011). An investigation of the Learning Style of Prospective educators *TOJNED: The Online Journal of New Horizons in Education - July 2011*, Volume **1**, Issue 3.
- Flaherty, G. (1992). The learning curve. *Vocational Education J.*, **67**(6) : 32-33.
- Geiger, M.A. and Pinto, J.K. (1991). Changes in learning style preferences during a three-year longitudinal study. *Psychological Reports*, **69**(3) : 755-762.
- Glines, Cevriye (2004). Learning Style Preferences of preparatory School Students" M.Ed. Dissertation, Middle East Technical University.
- Goleman, D. (1995) Emotional intelligence. Why it matters more than IQ. New York, Bantam Books.
- Hau Jen-Tsung (2008). Influences of the Academic Self-concept on Academic Achievement: From a Perspective of Learning Motivation (Draft) National Taiwan Normal University National Chengchi University.
- Krishendu Bagchi (2004). A study on Scholastic Achievement in life Science in relation to Cognitive Style social Disadvantages and interest of Secondary Students in Tripura; *J. Indian Education* August 2004 pp 68-73
- Manukhbhai (1992). *General Psychology: Academic Achievement* 6<sup>th</sup> edition New Delhi Tata Mc, Graw Hill pp.538-39 New Delhi pp. 92
- Muthumanickam (1992). Academic Achievement of Bachelor of Physiotherapy Students in relation to their study skills *J. Teacher Education*, **1** (2) November, 2006
- Naik Bijay (2010). A comparative study of Learning Style of Business Students; University of South Dakota Vermillion.
- Nuthana, P.G. and Yenagi Ganga (2007) Gender Analysis of Academic Achievement among high school students; *Department of Human Development College of rural Home Science, Dharwad University of Agricultural Sciences, Dharwad*.
- Pada, M. (2000). Analysis of Relationship between Academic Achievement and School Interventions of Class IX students. *J. Educational Res. & Extension*, **37** (4) : 1-8.
- Roy, Sharmistha (2008). A comparative study of factors affecting Academic Achievement of school going adolescent boys and girls. *Third International Conference on Interdisciplinary Social Science, Monash University Centre, Prato, Tuscany, Italy* 22-25 July.

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