

LEARNING STYLE OF SECONDARY SCHOOL STUDENTS IN REALTION TO GENDER

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Abstract

The present paper studies and find differences in learning style of secondary school students in relation to gender. The present study was conducted on students studying in secondary schools of Jalandhar district to Punjab School Education Board, Mohali. Students were raised by cluster sampling technique from four schools keeping in mind strata based on gender. The sample comprised of 300. Students out of these 150 were male and 150 were female. Learning Style Inventory (2012) developed by Kanina Shankar Misra was used to collect the data. The data collection was done by administering learning style inventory to the secondary school students by visiting the schools personally. Data was tabulated and transferred to SPSS sheet. Analysis of data revealed that both male and female students have an equal magnitude of preference except for figural and reproducing learning styles. Although a perusal of other means reveals that male students are significantly more inclined to enactive and constructive learning styles than their counterparts. In fact, the marginal differences in means of figural, verbal and reproducing learning styles are attributed to chance factor and male and female students are not different from each other with regard to figural, verbal and reproducing learning style.

Keywords: Learning Style, Gender, Secondary School Students

A Learning style is not in itself an ability but rather a preferred way of using one's abilities (Sternberg, 1994). Individuals have different learning styles, i.e., they differ in their 'natural, habitual, and preferred way(s) of absorbing, processing, and retaining new information and skills' (Reid, 1995). Learning styles are typically bipolar entities (e.g. reflective versus impulsive, random versus sequential), representing two extremes of a wide continuum (Dörnyei, 2005). Learning styles are not fixed modes of behaviour, and, based on different situations and tasks, styles can be extended and modified (Reid, 1987; Oxford, 2011). However, the extent to which individuals can extend or shift their styles to suit a particular situation varies (Ehrman, 1996).

Since its inception in 1920s and recognition in field of education in the mid-1970s (Griffiths, 2012), many different dimensions of learning styles have been investigated both conceptually and empirically, and numerous theories and multiple

taxonomies attempting to describe how people think and learn have been proposed. Furthermore, various learning style instruments have been developed for both research and pedagogical purposes (Coffield, Moseley, Hall, and Ecclestone, 2004).

While there is ample evidence that individuals differ in how they prefer to take in, process, and acquire new information, the educational implications of such preferences have been a source of great controversy among researchers and educators over the years (Pashler, McDaniel, Rohrer, and Bjork, 2009). Learning styles can be measured and used as a valuable teaching tool inside the classroom (e.g. Sternberg, Grigorenko, and Zhang, 2008). According to these scholars, by diagnosing students' learning styles and matching them to teaching methods, learning can be greatly enhanced. Other scholars have rejected the value of learning styles in educational practice and claim that tailoring

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instruction to students' individual learning styles does not lead to better learning outcomes (e.g. Stahl 1999; Willingham, 2005).

According to the ELT, learning style is an individual's preferred methods for perceiving and transforming his/her learning experiences (Mainemelis, Boyatzis, and Kolb., 2001, 2002; Lachenmayer, 1997). It is the internal goals and specific needs that shape how an individual approaches learning, resulting in a dominant learning style (Lachenmayer, 1997). The alignment of the dominant learning styles of the individual with the teaching styles of the instructor has strong implications for academic success. In fact, one of the main factors considered when deciding on an academic major is the cohesion and compatibility of the norms of the major and learning styles (Amany, 2001).

Men tend to embrace the Assimilator learning style which accurately reflects traditional pedagogy, whereas the learning styles that women match least is the Assimilator (Philbin et al., 1995). Most research suggests that preferred learning styles of males and females can generally be distributed equally among the four learning modes; however, there is considerable evidence suggesting a discrepancy between male and female scores in the abstract-concrete dimension of learning (Heffler, 2001; Tindall and Hamil, 2003). Studies suggest that females score higher in the concrete learning mode whereas males score higher on the abstract conceptualization side of the continuum.

Women with a concrete experience learning approach usually prefer hands-on experiences to learn, they make intuitive or feeling based judgments, they are people oriented, and they typically feel comfortable with ambiguity (Heffler, 2001). They excel at understanding people, identifying problems, brainstorming, imagining, taking risks, leading, and getting work done (Lachenmayer, 1997). Conversely, men who prefer abstract conceptualization take an analytic approach to learning, they think logically and rationally, they enjoy working with symbols and like structure (Heffler, 2001).

OBJECTIVE

- To compare learning style of secondary school students on the basis of gender.

SAMPLE

The present study was conducted on students studying in secondary schools of Jalandhar district (Population) affiliated to Punjab School Education Board, Mohali. Students were raised by cluster sampling technique from fourschools keeping in mind strata based on gender. The sample comprised of 300 (Mean age=15.99 Years, SD=3.22) Students out of these 150 (Mean age=15.21 Years, SD=2.03) were male and 150 (Mean age=24.09 Years, SD=3.34) were female.

Measures

Learning Style Inventory (2012) developed by Kanina Shankar Misra was used to collect the data. This inventory consists of 42 items. This inventory attempts to measure six main learning styles namely—Enactive Reproducing, Enactive Constructive, Figural Reproducing, Figural Constructive, Verbal Reproducing and Verbal Constructive. Alpha reliability of the learning style inventory for the three learning styles namely—Enactive, Figural and Verbal are .682, .742 and .903 respectively (N=150). Intrinsic validity of the Learning Style Inventory was found by finding the product moment correlations among learning styles. The minimum and maximum score on this inventory could be 42 to 210.

Data Collection

The data collection was done by administering learning style inventory to the secondary school students by visiting the schools personally and taking permission from the Principals of the schools. In each school, students were selected randomly from the class. After establishing a rapport with the students, the inventory was administered to the students. The students were instructed properly to give responses. The filled in response sheets were collected from each respondent. The scoring was done strictly according the directions and instructions given in the test manuals.

Results

Table 1: Significance of Difference between Learning Style Scores of Male and Female

SN	Learning Style	Male group (N=150)		Female group (N=150)		t-value	Significance
		Mean	S.D.	Mean	S.D.		
1.	Enactive	49.25	7.76	46.36	7.84	3.21	S
2.	Figural	46.72	8.27	46.77	8.79	0.05	NS
3.	Verbal	51.24	8.85	51.63	8.67	0.39	NS
4.	Reproducing	70.84	10.40	71.18	11.16	0.27	NS
5.	Constructive	76.78	12.72	73.58	12.79	2.17	S
6.	Total	147.18	21.18	144.76	23.20	0.94	NS

The statistics of the Table 1 shows that the male and female secondary school students hold average level of learning style and possess almost equal level of all learning style. Standard Deviation is high in both groups i.e., 21.18 and 23.20 respectively. Both have an equal magnitude of preference except for figural and reproducing learning styles. Although a perusal of other means reveals that male students are significantly more inclined to enactive and constructive learning styles than their counterparts. In fact, the marginal differences in means of figural, verbal and reproducing learning styles are attributed to chance factor and male and female students are not different from each other with regard to figural, verbal and reproducing learning style.

So, the null hypothesis may be accepted and it may be concluded that the hypothesis *“There exists no significant difference in learning style between secondary school students on the basis of gender i.e., male and female”* can be partially rejected.

Implications of Gender Differences

The research shows that there is a difference between the way men and women learn (Figural and constructive). The question to explore is whether or not traditional education supports how both men and women learn. There is evidence to suggest that traditional education does not support all learning styles. According to Philbin et al. (1995), traditional education supports and appeals to men more than to women. Subjective responses by female participants in the survey conveyed disconnect between student experiences and learning styles. One female respondent said, “I never saw much practical application for the words/topics being

discussed.” Compare this to a male respondent who said, “I believe my learning style of using logical steps to break down things and analyze them helped me in my studies of computer science and systems analysis” (Philbin et al., 1995, p. 491). This supports the idea that institutions develop a culture that puts emphasis on one mode of learning and dismisses other learning modes (Kolb and Kolb, 2005).

Predominantly, in today’s education system, women have successfully integrated. Men and women have been found to differ in their learning and instructional preferences (Heffler, 2001). Women tend to prefer hands-on learning experiences, they make intuitive or feeling based judgments, they are people oriented, and they are comfortable with ambiguity. Men tend to take an analytic approach to their learning, they think logically and rationally, and they enjoy working with symbols and like structure. Some recommendations for educators to enhance the learning experiences of women and men alike are to create internship opportunities, use real-life examples and applications, allow students to construct knowledge and encourage a collaborative classroom culture.

Recommendations

Institutions of higher education should take gender differences in learning styles into consideration, especially in classrooms which still use traditional teaching methods. There are many ways to consider the learning needs of women and other non-traditional learners in teaching. To accomplish this growth in pedagogical methods, the research offers some suggestions to make appropriate curricular changes. A major initiative which would enhance not just learning experiences of women but also

men would be internships. Research shows that internships increase proficiency and self-efficacy. Opportunities for a work/study role allow students to have some hands-on experiences in their fields, which help them gain confidence and an early understanding of how learning applies to real life (Madill et al., 2004; Joseph, 2008).

Another recommendation would be to take a multidisciplinary approach to teaching, using real-life applications and practical examples that draw on student interest and hold relevance to the topics being discussed in class (Faulkner and Lie, 2006; Fear-Fenn and Kapostasy, 1992; Madill et al., 2004). Women have more success when they can see the purpose of what they are learning and how it influences the external world (Madill et al., 2004). Furthermore, instead of developing a “transmission” relationship between teachers and students, allowing students to take charge of their own learning, by encouraging experiential learning or self-authorship, will help students construct knowledge, not just receive knowledge (Kolb and Kolb, 2005).

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