FIGURAL LEARNING STYLES AND ACADEMIC ACHIEVEMENT: A COMPARATIVE STUDY OF SENIOR SECONDARY SCHOOL STUDENTS IN ENGLISH

Dr. Anuradha Sindhwani
Associate Professor, K.M. College of Education, Bhiwani, Haryana, India.
(anukmc@gmail.com)
Dr. Rakhi
Lecturer, Vaish College of Education, Rohtak, Haryana, India.
(sindhwani79rakhi@gmail.com)

ABSTRACT

The present study aimed to examine the impact of figural learning style on academic achievement of senior secondary school students.The study sample consisted of 600 senior secondary school students from five districts of Haryana state. Cluster Random sampling technique was used to select these subjects from the population. Learning Style Inventory by Mishra (2012) and Achievement Test in English constructed by investigators were used for data collection. Descriptive statistics like Mean, Standard Deviation and 't' test was used to compare the groups. The findings of the study revealed that statistically, there are significant differences in academic achievement of students with respect to figural learning styles (i) students having high figural learning style have better academic achievement than the students having average figural learning style; (ii) students having average figural learning style have better academic achievement than the students having low figural learning style; and (iii) students having high figural learning style have better academic achievement than the students having low figural learning style.

Key words: Learning Style, Academic achievement, Figural learning style, Senior Secondary School Students.

INTRODUCTION

Learning styles group common ways in which people learn. Learning styles indicate those educational conditions under which a student is most likely to learn (Stewart and Felicitti, 1992). Most people favor some particular method of interacting with, taking in and processing stimuli or information (Dunn& Dunn, 1978).Learning style refers to the way one internally represents experiences and recalls or processes information (Goleman, 1995). 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."

Learning styles speaks to the understanding that every student learns differently. Technically, an individual's learning style refers to the preferential way in which the student absorbs, processes, comprehends and retains information. For example, some students learn by listening; some by seeing images, graphs, diagrams etc. While others students learn by doing only. Individual learning styles depend on cognitive, emotional and environmental factors, as well as one's prior experience. In otherwords,everyone's different. Having knowledge about how students learn and how learning style affect academic achievement is essential for creating more effective teaching strategies and innovative curriculum designs.

Academic achievement refers to the level of proficiency attained in academic work or as formally acquired knowledge in school subjects which is determined by the grades, or marks secured by the students in the examination. It reveals the level of educational accomplishment in various subjects taught in educational institution. It also reveals the quantity and quality of learning attained in a subject of study after a period of instruction. Besides being the criterion of promotion to the next class, academic achievement is also an index of future success and determines the pattern of one's living. There exists a close association between learning style and academic performance of the students (Ghazhivakilli, 2014). Matching students' learning-style preferences with complementary instruction improves academic achievement and students' attitudes towards learning (Coffee, Hall & Ecclestone, 2004). Dunn, Griggs, Olson, Gorman, and Beasley (1995) concluded that educational interventions compatible with students learning-style preferences are beneficial to their academic achievement.

Zainol, Abdullah and Rezaee (2011) investigated of the relationship between learning styles and overall academic achievement. The analyses of the data indicated "a significant relationship between overall academic achievement and learning styles. It was also found that the high, moderate and low achievers have a similar preference pattern of learning in all learning styles. Moreover, the learning styles framework does not change with subjects, where it actually plays an important role across all the subjects".

Chermahini, Ghanbari and Talab (2013) investigated the relationship between learning styles and the academic performance of students who attend an English class to learn English as a second language in Iran. The results indicated "significant relationships between the different learning styles and the performance in an English test, and the performance resulted differently in four groups with different preferred learning styles."

Pellon, Nome and Aran (2013) determined the learning styles of fifth-year medical students who attended the ophthalmology course and to also determine the correlation with their academic performance. It revealeda relation between the variables of learning styles and academic performance ($p \leq 0.05$).

Grace (2015) studied the learning style, teaching strategies, academic achievement among the Psychology Undergraduates in Barbados. The total sample size was 171 of the same university. The tools used for analysis of data is Descriptive statistics, Anova, Multiple regression. The study concluded that VARK is the preferred learning style which influences academic achievement and most required teaching strategies.

Wichuda J.et al., (2015) focused on Learning styles and academic achievement among undergraduate medical students in Thailand. 1014 medical students were drawn as sample to collect data for the research. The researcher found that a sequential learning style was associated with high academic achievement, compared to the balanced and global learning styles.

Albert (2016) analysed the students' preferred learning styles & academic performance.The results were drawn from a sample of 343 business students. Spearman Rho Correlation is used to test the correlation and Kruskal-Wallis test is applied to evaluate whether there is any significant relationship between different learning styles on the basis of academic performance. From the study it was found that the academic performance of business students is affected by learning style.

Karalliyadda (2016) examined the Learning Style and Academic Performance of First Year Agricultural Undergraduates. The total sample size drawn was 74. Chi-Square test was carried out to identify the significant difference of the learning styles between attributes. One Way ANOVA test was administered to identify the availability of significant academic performance differences between the learning styles. The study concluded that learning style have an impact on the academic performance of the students.

NEED OF THE STUDY

Education is a dynamic process, which always changes in response to the requirements of the society. Our society is moving in an era of working with communications rather than working in factories. With these societal changes the model of schooling is also changing. This transformation creates chaos and confusion on one hand and offer immense opportunity and new possibilities on the other. Now the situations demand learning to be more flexible, experimental and collaborative.There have been many attempts made to enhance students'

academic achievements. It has always been the main concern of many dedicated teachers and parents that their students and children be as much successful as possible. In relation to this, many teachers are convinced that students need the positive attitude to succeed academically. Often, one's learning style is identified to determine strengths for academic achievement. Dunn, Beaudry and Klavas (1989) assert that through voluminous studies, it has been indicated that both low and average achievers earn higher scores on standardized achievement and attitude tests when they are taught within the realm of their learning styles. Although learning styles has not received full consideration in the local educational context, it is certainly the time that learning styles be fully incorporated into the teaching services. However, without proper research in this area, it is difficult to illustrate the contribution and positive intervention of learning styles with students' overall academic achievements. The present study was conducted to know the impact of figural learning styles on academic achievement of senior secondary school students.

OPERATIONAL DEFINITIONS

Learning Style:Learning style refers to the preferential way in which the student absorbs processes, comprehends and retains information.

Figural Learning Style: Figural Learning Style refers to the student's preference for visual experience related to making diagrams, charts, pictures, maps and photographs, imitation and practice, reproducing the information and conceptualizing one's experience based on the processing of figural experiences.

Academic achievement: It is the accomplishment or proficiency attained in academic work which is determined by grades/marks secured by the student in the examination.

OBJECTIVES

1. To study and compare academic achievement of high figural learning style and average figural learning style of senior secondary school students in English.
2. To study and compare academic achievement of average figural learning style and low figural learning style of senior secondary school students in English.
3. To study and compare academic achievement of high figural learning style and low figural learning style of senior secondary school students in English.

HYPOTHESES

H 1. There is no significant difference in academic achievement of high figural learning style and average figural learning style of senior secondary school students in English.

H 2. There is no significant difference in academic achievement of average figural learning style and low figural learning style of senior secondary school students in English.

H 3. There is no significant difference in academic achievement of high figural learning style and low figural learning style of senior secondary school students in English.

METHOD OF RESEARCH

The present study was an attempt to explore academic achievement in English in comparison to their learning style. So Descriptive Survey Method of research was employed as this method is concerned with surveying, describing and investigating the existing phenomena or issues, conditions that exist.

POPULATION AND SAMPLE

The population of this study comprised of senior secondary school students in five districts of Haryana state. 600 students of senior secondary standard are taken as sample of the study. Cluster random sampling technique was used to select the subjects from the population.

TOOLS USED

- Learning Style Inventory by Mishra (2012)
- Academic achievement scores were taken from the Achievement test in English which was made by investigator herself.

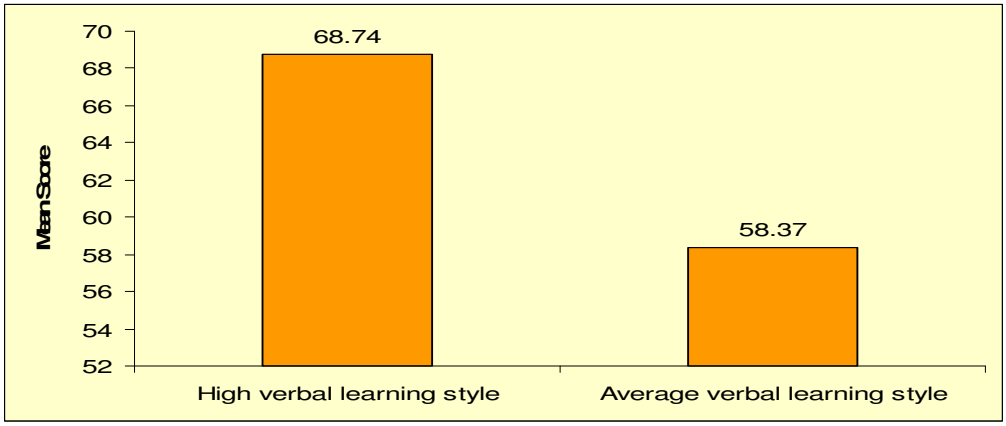
STATISTICAL TECHNIQUES USED

Descriptive statistics like Mean, Standard Deviation and ‘t’ test were used to compare the groups.

RESULTS

Table 1
Means, S.D.s and 't' ratio of academic achievement of high figural learning style and average figural learning style of senior secondary school students in English

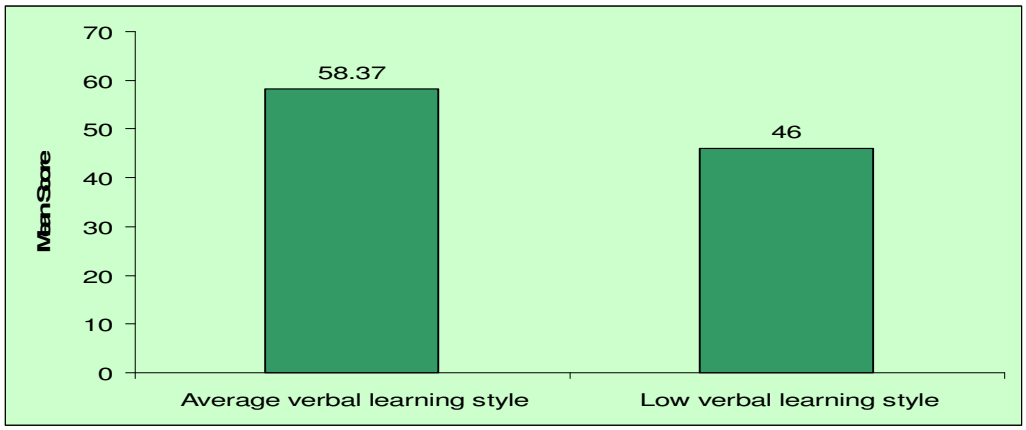
Variable	Group	Number	Mean	S.D.	't' ratios	Level of Significance
Academic Achievement	High figural learning style	283	68.74	10.51	9.953	Significant at 0.01 level
	Average figural learning style	249	58.37	13.07		



A scrutiny of Table 1 indicates that the mean score of academic achievement of students having high figural learning (68.74±10.51) is higher than the mean score (58.37±13.07) of students having average figural learning style. The 't' value is 9.953 which is significant. It depicts that students having high and average figural learning differ significantly on academic achievement. Further mean score of students having high figural learning style is higher than the students having average figural learning style. It indicates that students having high figural learning style have better academic achievement than the students having average figural learning style counterparts. Thus, the hypothesis framed earlier, "There is no significant difference in academic achievement of high figural learning style and average figural learning style of senior secondary school students in English" is not retained.

Table 2
Means, S.D.s and 't' ratio of academic achievement of average figural learning style and low figural learning style of senior secondary school students in English

Variable	Group	Number	Mean	S.D.	't' ratios	Level of Significance
Academic Achievement	Average figural learning style	249	58.37	13.07	6.739	Significant at 0.01 level
	Low figural learning style	68	46.00	14.62		



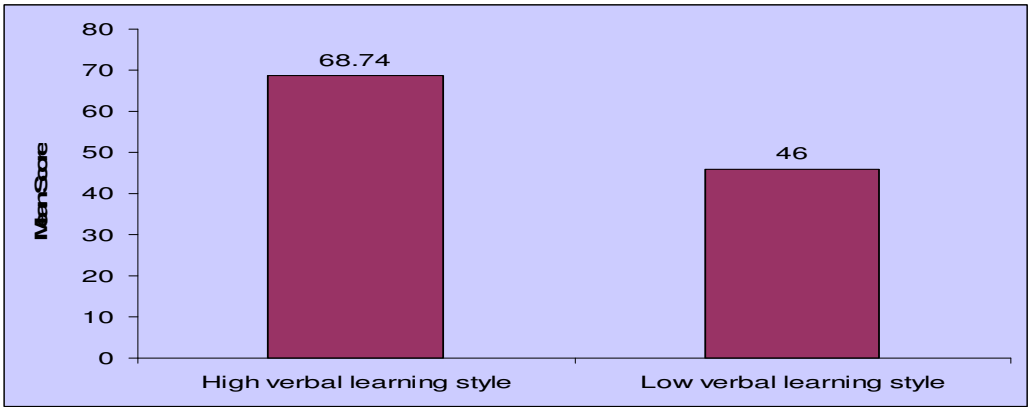
Aanalysis of Table 2 indicates that the mean score of academic achievement of students having average figural learning (58.37#13.07) is higher than the mean score (46.00#14.62) of students having low figural learning style. The 't' value is 6.739 which is significant. It depicts that students having average and low figural learning differ significantly on academic achievement. Further mean score of students having average figural learning style is higher than the students having low figural learning style. It indicates that students having average figural learning style have better academic achievement than the students having low figural learning style counterparts. Thus, the hypothesis framed earlier, "There is no significant difference in academic achievement of average figural learning style and low figural learning style of senior secondary school students in English" is not retained.

Table 3

Means, S.D.s and 't' ratio of academic achievement of high figural learning style and low figural learning style of senior secondary school students in English

Variable	Group	N	Mean	S.D.	't' ratios	Level of Significance

Academic Achievement	High figural learning style	287	68.74	10.95	14.334	Significant at 0.01 level
	Low figural learning style	56	46.00	14.62		



A scrutiny of Table 3 reveals that the mean score of academic achievement of students having high figural learning (68.74±10.95) is higher than the mean score (46.00±14.62) of students having low figural learning style. The 't' value is 14.334 which is significant. It depicts that students having high and low figural learning differ significantly on academic achievement. Further mean score of students having high figural learning style is higher than the students having low figural learning style. It indicates that students having high figural learning style have better academic achievement than the students having low figural learning style counterparts. Thus the hypothesis framed earlier, "There is no significant difference in academic achievement of high figural learning style and low figural learning style of senior secondary school students in English"is not retained.

FINDINGS OF THE STUDY

1. It was found that students having high figural learning style have better academic achievement than the students having average figural learning style.
2. It was found that students having average figural learning style have better academic achievement than the students having low figural learning style.
3. It was found that students having high figural learning style have better academic achievement than the students having low figural learning style.

DISCUSSION OF RESULTS

This study aimed at studying Academic Achievement in English of Senior Secondary School Students as related to their Learning Style. The findings of the study point out many significant implications.

The present study reveals that learning styles can be considered as a good predictor of academic performance, and it should be taken into account to enhance students' performances specifically in learning and teaching the English language, and also showed that individual differences in learning styles play an important role in this domain. The findings of the present study are in consonance with the findings of **Zainol, Abdullah and Rezaee (2011)** who also revealed that the high, moderate and low achievers have a similar preference pattern of learning in all learning styles. Moreover, the learning styles framework does not change with subjects, where it actually plays an important role across all the subjects.

In the present study, it was also found that students use different preferred learning styles to learn English language, which is in consonance with the findings of **Chermahini, Ghanbari and Talab (2013)**who explained the relationship between learning styles and the academic performance of students who attend an English class to learn English as a second language in Iran. The results of the present study indicated significant relationships between the different learning styles and the performance in an English test, and the performance resulted differently in four groups with different preferred learning styles. These results lead us to conclude that learning styles can be considered as a good predictor of any second language academic performance, and it should be taken into account to enhance students' performances specifically in learning and teaching the second language and also showed that individual differences in learning styles play an important role in this domain. While in other study, **Nzesei (2015)** also found a positive relationship between learning styles (all dimensions) and academic achievement.

IMPLICATIONS

This study revealed significant differences in students' overall academic achievement. It showed that the students having better figural learning styles have better academic achievement in comparison to their counterparts. As such, it is inferred that learning styles do make an impact on the students' overall academic achievement. Such finding highlights the importance of recognizing students' varying learning styles. Teachers should be aware of the usefulness of learning styles for effective learning to take place. The learning styles

framework does not change with subjects, where it actually plays an important role across all the subjects. Therefore, the results here suggest avenues of future research to understand this phenomenon. As a related matter, a study of other learning style variables may also be conducted to bring essential variables to the forefront.

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