

A Study on Learning Style of Teacher Trainees

Madhu Raghav

Research Scholar, Department of Education
Swami Vivekanand Subharti University, Meerut

Anoj Raj

Professor & Head Department of Education
Swami Vivekanand Subharti University, Meerut

Abstract:

The main objective of the study was to find out the relationship of learning styles with academic achievement of teacher trainees. The participants of the study were 100 teacher trainees from different teacher education institutions of DIET, Meerut, 50-50 teacher trainees from DIET and Self-Finance Institutions were selected by stratified sampling technique. The tool used by K. S. Misra Learning Inventory. The results show that there is no significant difference in the learning styles of DIET and Self-Finance Institution's trainees.

Keywords: Learning style, trainees, D.El.Ed. course

Introduction:

Education is a form of learning in which the cognitive (knowledge), emotional (attitudes, beliefs, values) and psychomotor (skills) of a group of people are transferred from one generation to another through teaching, training, research or oral transactions goes (, It occurs through any experience that has a significant and formative impact on the way a person thinks, feels, or acts (Yazici, 2005). Education is not merely a process of understanding the highest level of knowledge attained by humanity at a given time, but is a continuous activity that creates new knowledge to sustain life across temporal and spatial barriers. Therefore, **Learning** is the process of acquiring new, or modifying existing, knowledge, behavior, skills, values, or preferences. It involves the synthesis of different types of information and experiences. While learning is not mandatory, it is essential for personal growth and adaptation in a constantly changing world (De Houwer, Barnes-Holmes & Moors,2013). This does not happen all at once, but builds and takes shape based on what we already know.

Learning styles are patterns of behavior that humans use to learn new things. Every individual is unique in his/her learning style, teachers need to know and adopt different teaching styles as one style is not suitable for every student. Teachers need to focus their instruction based on individual differences in learning styles. For decades, education has researched designed

models that differentiate the way people learn. Yet the results are often difficult to understand. Proponents say that teachers should assess the learning styles of their students and adapt their classroom methodology to best fit each student's learning style to make the teaching-learning process effective (Deniz & Sabahattin, 2013). It is clear that the effectiveness of aligning teaching strategies with students' learning preferences, particularly for visual and kinesthetic learners. Research has indeed shown that when instruction is tailored to how students learn best, such as using visual aids or hands-on activities, their engagement and understanding tend to improve, especially in complex subjects (Harrison, Shannie, 2013).

Learning styles are the cognitive, affective, and psychological ways in which learners perceive, interact with, and respond to the learning environment (Keefe, 1979).. Students vary in the ways they approach learning tasks and their behavior in learning situations. All students have strengths and abilities but each student's learning style is his or her natural way of learning. Students with different learning styles understand and attempt to solve problems in different relatively stable ways. Different styles and patterns of conceptualization and activity patterns regarding learning may be the most important characteristic of an individual (Evan & Vermunt, 2013).

Learning styles play a major role in a student's academic performance (Akhlaghi, Mirkazemi, Jafarzade & Akhlaghi, 2018). Awareness of one's learning style will help one maximize one's ability to learn to the best of one's ability with the use of one's preferred learning styles. The main focus of any education system and policy should be on the learner because the reason for the existence of teachers and schools is the learner and also he should be easily picked up, comfortably attracted and completely satisfied. People differ in the way they learn, think, and problem solve (Stern, 2017). Some people like to study alone while some like to study in a group. Some people understand more by looking at graphs, tables, and figures, while others understand better when reading their text rather than listening to someone give a lecture. Learning is a life-long process of transforming information and experience into knowledge, skills, behaviors and attitudes. Since learning styles are a large contributor to a student's academic performance, awareness of one's learning style will help one maximize one's ability to learn (Seifert, Kelvin, Sutton, Rosemary, 2009). The teacher's awareness of the student's learning style will help him or her choose teaching strategies that will maximize the student's learning potential. (Kharb, Samanta, Jindal & Singh, 2013). Cognitive styles or learning styles

can be defined as a person's orientation towards learning tasks or the learner's preferred way of processing information. Learning styles reflect a person's specific way of thinking, remembering, or problem solving, they simply reflect a tendency to behave in a certain way, as they are considered bipolar dimensions. Unlike learning styles, abilities describe peak performance in an unpopular manner ranging from zero to maximum value.

The concept of experiential learning explores the cyclical patterns of all learning from experience, through reflection and conceptualization to action and further experience. Kolb's work is based on the work of Piaget, Dewey, and Lewin, and it explores the processes involved in understanding concrete experiences and the learning styles involved in doing so (Kolb, 1984). . Experiential learning occurs as a direct result of learner participation in events, it uses the participants' own experience and their own reflection about that experience. It is a learner-centred approach that starts from the premise that people learn best from experience (learning by doing). It is particularly effective because of its holistic approach addressing the cognitive, emotional and physical aspects of the learner. Accommodators are the opposite of assimilators. Their key learning strengths are concrete experiences and active experimentation. They like to do things and want to experiment and apply. Such individuals take more risks than people with other learning styles. Analysis of learning styles will be helpful for instructors to design appropriate teaching materials and methods (Yotta, 2023). It is felt that there is a need to identify learning styles and the impact of learning styles on the academic achievement of high school students to meet the demands of being productive people in the society. Students' academic performance and success in life depend on the thinking and problem solving skills they develop early (Elbyaly, Marwa & Abdellah, 2023).

It was found that learning styles influence the learning behavior of learners. Learners with different learning style preferences will behave differently in the way they perceive, interact, and respond to the learning environment. The learning approaches emphasize students' learning context understand their academic behaviors and achievements (Evans & Vermunt, 2013). The theory and the actual school result are directly related to the student's family experience (Raj, 2012). Since learners have different preferences towards certain learning styles, it would be important for teachers to examine the variation in their student' learning styles based on their characteristics, as information about learners' preferences Can help teachers become more sensitive to the differences students bring to the classroom.

Adjustments can then be made to accommodate the different needs of students. Therefore, this study aims to characterize the relationship of learners' learning style preference and overall academic achievement of secondary school students.

Research Question-

Does the type of management affect teacher trainees' style?

Objective of the study- To Comparing learning styles of teacher trainees in DIET and Self-Finance Institutions based on gender.

Hypothesis

There is a significant difference between the learning style of teacher trainees studying at DIET and Self-Financed Institutions.

Methodology

The participants in the study were 100 teacher trainees from different institutions of Meerut, out of which 50 teacher trainees each from DIET and 50 teacher trainees of Self-Finance Institutions were selected by stratified sampling technique to make the group representative of the population. A standardized list, slightly modified, was used as an instrument for data collection. The instrument used was the K. S. Mishra Learning Inventory. The learning styles scale consists of 24 questions related to identifying diverges, accommodators, assimilators, and converges. Responses were expected on a four-point scale. The statistical techniques used to detect significant differences in learning styles of teacher trainees with respect to management, gender and academic achievement are mean, standard deviation, t-test and coefficient of correlation.

Data Analysis

Table no. 1.0 compares the difference between teacher trainees studying in DIET and Self-Finance Institutions on Inactive Reproducing learning style. The calculated 't' value works out to **2.90** as against its table value **1.96** for 98 degree of freedom at 0.05 level of significance. This result suggests that the difference between the Inactive Reproducing learning style of students studying at DIET and Self-Financed Institutions differ significantly at 0.05 level of significant.

The table also compares the difference between students studying in DIET and Self-Finance Institutions on Inactive Constructive learning style. The calculated 't' value works out to **11.17** as against its table value **1.96** for 98 degree of freedom at 0.05 level of significance. This result suggests that the difference between the Inactive Constructive learning style of students studying at DIET and Self-Financed Institutions differ significantly at 0.05 level of significant.

The difference between students studying in DIET and Self-Finance Institutions on Figural Reproducing learning style is reflecting on the table 1. The calculated 't' value works out to **7.01** as against its table value **1.96** for 98 degree of freedom at 0.05 level of significance. This result suggests that the difference between the Figural Reproducing learning style of students studying at DIET and Self-Financed Institutions differ significantly at 0.05 level of significant.

Table-1.0: Learning Style of Students Studying at DIET and Self-Financed Institutions

S. No.	Learning Style	Students Studying in DIET (N=100)		Students Studying in Self-finance Institution (N=100)		't' Value	Level of significance 0.05
		Mean	S.D.	Mean	S.D.		
1	Inactive Reproducing	27.65	2.74	26.10	2.60	2.90	Significant
2	Inactive Constructive	27.97	0.97	25.28	1.40	11.17	Significant
3	Figural Reproducing	30.08	0.90	27.74	2.18	7.01	Significant
4	Figural Constructive	26.07	0.70	26.60	1.47	2.30	Significant
5	Verbal Reproducing	31.09	0.81	27.20	2.47	10.58	Significant
6	Verbal Constructive	29.59	1.10	28.15	3.18	3.03	Significant
7	Inactive	55.61	2.83	51.38	3.00	7.25	Significant
8	Figural	56.15	1.18	55.33	2.87	2.48	Significant
9	Verbal	60.68	1.24	55.35	4.12	8.76	Significant
10	Reproducing	85.69	2.78	79.12	3.50	10.39	Significant
11	Constructive	87.02	1.27	81.95	4.57	7.56	Significant

The comparison the difference between students studying in DIET and Self-Finance Institutions on Figural Constructive learning style indicate that the calculated 't' value works out to 2.30 as against its table value 1.96 for 98 degree of freedom at 0.05 level of significance. This result suggests that the difference between the Figural Constructive learning style of students studying at DIET and Self-Financed Institutions differ significantly at 0.05 level of significant.

The difference between students studying in DIET and Self-Finance Institutions on Verbal Reproducing learning style reflects that the calculated 't' value works out to 10.58 as against its table value 1.96 for 98 degree of freedom at 0.05 level of significance. This result suggests that the difference between the Verbal Reproducing learning style of students studying at DIET and Self-Financed Institutions differ significantly at 0.05 level of significant.

The table 1 compares the difference between students studying in DIET and Self-Finance Institutions on Verbal Constructive learning style and the calculated 't' value works out to 3.03 as against its table value 1.96 for 98 degree of freedom at 0.05 level of significance. This result suggests that the difference between the Verbal Constructive learning style of students studying at DIET and Self-Financed Institutions differ significantly at 0.05 level of significant.

The difference between students studying in DIET and Self-Finance Institutions on Inactive learning style in the table 1 shows that the calculated 't' value works out to 7.25 as against its table value 1.96 for 98 degree of freedom at 0.05 level of significance. This result suggests that the difference between the Inactive learning style of students studying at DIET and Self-Financed Institutions differ significantly at 0.05 level of significant.

The table 1 compares the difference between students studying in DIET and Self-Finance Institutions on Figural learning style. The calculated 't' value works out to 2.48 as against its table value 1.96 for 98 degree of freedom at 0.05 level of significance. This result suggests that the difference between the the Figural learning style of students studying at DIET and Self-Financed Institutions differ significantly at 0.05 level of significant.

The difference between students studying in DIET and Self-Finance Institutions on Verbal learning style in the table-1 indicates that the calculated 't' value works out to 8.76 as against

its table value 1.96 for 98 degree of freedom at 0.05 level of significance. This result suggests that the difference between the Verbal learning style of students studying at DIET and Self-Financed Institutions differ significantly at 0.05 level of significant.

The table 1 compares the difference between students studying in DIET and Self-Finance Institutions on Reproducing learning style. The calculated 't' value works out to 10.39 as against its table value 1.96 for 98 degree of freedom at 0.05 level of significance. This result suggests that the difference between the Reproducing learning style of students studying at DIET and Self-Financed Institutions differ significantly at 0.05 level of significant.

The table-1 compares the difference between students studying in DIET and Self-Finance Institutions on Constructive learning style. The calculated 't' value works out to 7.76 as against its table value 1.96 for 98 degree of freedom at 0.05 level of significance. This result suggests that the difference between the Constructive learning style of students studying at DIET and Self-Financed Institutions differ significantly at 0.05 level of significant.

Conclusion and Implications

Teacher trainees of DIET and Self-Financed Institutions have the significant difference in every style of learning. Enactive reproducing, Enactive Constructive, Figural Reproducing, Figural Constructive, Verbal reproducing, Verbal Constructive, Enactive, Figural, Verbal, reproducing and Constructive these are the major learning styles. It is found that DIET teacher trainees have better learning styles in comparison of Teacher trainees of Self-Financed institutions. To improve teaching style, Yazici (2005) suggested that teachers should use different and appropriate teaching styles. Therefore, teachers in funded institutions should use appropriate teaching styles to improve the teaching style of their prospective teacher trainees.

References:

- Akhlaghi, N., Mirkazemi, H., Jafarzade, M., & Akhlaghi, N. (2018). Does learning style preferences influence academic performance among dental students in Isfahan, Iran?. *Journal of educational evaluation for health professions*, 15, 8. <https://doi.org/10.3352/jeehp.2018.15.8>
- Curry, L. 1999 'Learning Styles in Secondary Schools: A Review of Instruments and Implications for their Use'. ERIC Document Reproduction Service No. D 317283.

De Houwer, J., Barnes-Holmes, D. & Moors, A. (2013). What is learning? On the nature and merits of a functional definition of learning. *Psychon Bull Rev* 20, 631–642 (2013).
<https://doi.org/10.3758/s13423-013-0386-3>

Deniz, Sabahattin (2013) ‘Analysis of Study Habits And Learning Styles In University Students’. Ocak 2013 Cilt:21 No:1 Kastamonu Dergisi 287-302, January 2013 Vol:21 No:1 Kastamonu Education Journal

Elbyaly, Marwa & Elfeky, Abdellah. (2023). The impact of problem-solving programs in developing critical thinking skills. *European Chemical Bulletin*. 12. 6636-6642. 10.31838/ecb/2023.12.si6.588.

Evans, Carol & Vermunt, Jan. (2013). Styles, approaches, and patterns in student learning. *The British journal of educational psychology*. 83. 185-95. 10.1111/bjep.12017.

Harrison, Shannie (2013) ‘An Investigation of the Learning styles and Study Habits of Chemistry Undergraduates in Barbados and their Effect as Predictors of Academic Achievement in Chemical Group Theory’. ISSN 2239-978X *Journal of Educational and Social Research* Vol. 3 (2) May 2013, pp. 107

<https://www.srjis.com/assets/Allpdf/146685236439%20Dr.%20Anoj.pdf>

Keefe, J. W. (1979). Learning Style: An Overview. In J. W. Keefe, & O. B. Kiernan (Eds.), *Student Learning Styles: Diagnosing and Prescribing Programs* (Vol. 1, pp. 1-17). National Association of Secondary School Principles.

Kevin, A. Hoeffner (2010) ‘The effects of learning-style information on the achievement of community college development math students’. University of South Florida, www.scholarcommons.usf.edu/etd.

Kharb, P., Samanta, P. P., Jindal, M., & Singh, V. (2013). The learning styles and the preferred teaching-learning strategies of first year medical students. *Journal of clinical and diagnostic research* : *JCDR*, 7(6), 1089–1092.
<https://doi.org/10.7860/JCDR/2013/5809.3090>

Kolb, D. A. (1984). *Experiential learning: Experience as the source of learning and development* (Vol. 1). Englewood Cliffs, NJ: Prentice-Hall.

- Nzesei, Mutua, Meshack (2015) ‘A Correlation study between Learning Styles and Academic Achievement among Secondary School Students in Kenya.’ Department of Psychology, University of Nairobi.
- Raj, A.(2012). Academic Achievement in Theory and Practical in Relation to Family Background: A Study of College Students, *Scholarly Research Journal for Interdisciplinary Studies (SRJIS)1(3)*, Retrieved from
- Raj, A.(2012). Teacher Training Curriculum Design: Development and Implementation, *Scholarly Research Journal for Interdisciplinary Studies (SRJIS)1(9)* DE & EDUOP IATE sp., Retrieved from <https://www.srjis.com/assets/Allpdf/1469519082Anoj.pdf>
- Seifert, Kelvin, Sutton, Rosemary. (2009). *Educational Psychology* (2nd). : Global Text.
- Stern E. (2017). Individual differences in the learning potential of human beings. *NPJ science of learning*, 2, 2. <https://doi.org/10.1038/s41539-016-0003-0>
- Tandon, R. S. (1973) ‘Fundamentals of Psychology’. Agra: Shriram Mehra and Company.
- Yasmin, Fakhra (2016) ‘The Impact of Perceptual Learning Styles on Academic Performance of Masters’ Level Education Students.’ *Sci. Int.(Lahore)*,28(3),2953- 2958 , ISSN 1013-5316; coden: sinte 8 2953 May-June 2016
- Yazici, H. J. (2005). “[A Study of Collaborative Learning Style and Team Learning Performance](#),” *Education and Training*, 47 (3), 216 – 229.
- Yotta, E. G. (2023). Accommodating students’ learning styles differences in English language classroom. *Heliyon*, 9(6), e17497. <https://doi.org/10.1016/j.heliyon.2023.e17497>