



Identifying Learning Styles Preferences among the Final Year Undergraduate Students of Hooghly and Burdwan: An Empirical Study

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Abstract

It is widely accepted that awareness of the learners' dominant learning style preferences can benefit both learners and educators by making the process of learning smoother and more effective. The objective of the present study was to examine differences in learning styles preferences among the final-year students of degree colleges of Burdwan and Hooghly districts of West Bengal, with regard to gender and place of residence. A descriptive survey type method was adopted for the study. Data were collected from 110 respondents selected through a simple random sampling technique. The Learning Style Measurement Inventory, based on the VAK model was used to assess students' learning styles preferences. The collected data were analyzed by using SPSS version 26.0. The findings of the present study revealed that the final-year UG students from both Hooghly and Burdwan districts are predominantly multimodal learners, showing preferences for Visual, Auditory and Kinesthetic modes of learning. The major findings of the study further indicated that there is no significant difference in learning styles preferences among the final year UG students of Hooghly and Burdwan district with respect gender and place of residence.

Keywords: learning styles, preferences, final year students, gender, place of residence, VAK Model.

I. Introduction

Learning style is the way one prefers to observe, understand, process, absorb, retain and retrieve new information effectively and efficiently with great ease and comfort (Reid, 1987; Dunn and Dunn, 1990; Felder and Henriques, 1995). In the words of Ehrman & Oxford (1995), learning style is the “preferred or habitual pattern of mental functioning and dealing with new information” (p. 311). It involves cognitive, affective and physiological factors (O’Keefe, 1982). Keeping the same tone Pritchard (2018) defines learning styles as “the individual’s preferred means of acquiring knowledge and skills” (p. 45). Since its conception, learning style has become a matter of considerable interest among the researchers. Consequently, numerous models and methods have been developed to comprehend learning style and to make it easily comprehensible.



Several articles, book chapters, and books have also been published enhancing the importance of learning styles (Reid, 1987/1995; Dunn & Dunn, 1972; Kolb 1984; Fleming, 2001). But the results of the studies concerning the existence and impact of learning styles are found to be contradictory (Stern, 1987; Sarabi-Asiabar et al., 2015; Peyman, et al.; Omar, et al.; Al-Saud, et al.). Despite having some issues of contradiction, several researches have reported learning style as a dominant determining factor of learning effectively and efficiently (Reid, 1987; Felder and Henriques, 1995; Gordon, 1998; Riazi and Riasati, 2007; Shenoy, et al., 2013). It is widely accepted that the awareness of the dominant learning style preference of the learners can be beneficial for both the learners and educators (Awla, 2014). Identification of the preferred learning styles of the learners can help the teachers to adapt matching teaching style to engage the learners with learning actively and learners can acquire more knowledge investing a shorter time (Alina & Dabb, 2002; Massa & Mayer, 2006; Tuan 2011; Shenoy, et al., 2013). Therefore, to identify the preferred learning styles of the learners is an important objective to be addressed properly. This present study concentrates to identify the dominant learning styles of the final year Undergraduate students of Hooghly and Burdwan by using a learning style inventory developed on the basis of VAK (Visual, Auditory and Kinesthetic) model.

II. Literature Review

Norhasanah, Yusuf & suherdi (2022) aimed to identify the leaning style preferences of 44 students by using a self developed VAK learning styles questionnaire. 39% learners found to be visual learners. Rafique (2017) conducted a research to identify the learning styles preferences of the English honours students of the University of Dhaka. Reid's Perceptual learning style questionnaire was used to measure the learning styles of the students. The findings of the study revealed that major part of the learners preferred auditory learning style and the least preferred learning style was individual learning style. Mkonto (2015) made a research to investigate the individual learning styles of 130 1st year students Innovative Learning Experience (ILE) and a questionnaire have been used by the researcher to measure the individual's learning styles. The outcome of the study reported that individuals have dominant learning styles preference and majority of the students are multimodal in nature. Karthygeyan & Nirmala (2013) aimed to explore the perceptual learning styles of a group of 582 higher secondary students using Reid's Perceptual Learning Style Preference Questionnaire. The outcome of the study revealed visual and auditory learning styles as the most favoured and kinesthetic and individual learning style as the less preferred learning styles of the subjects. In the same year, Veena and Sastri (2013) made a research to find out the learning styles preferences of the undergraduate students using the VARK learning styles questionnaire. 80% of the learners revealed to be unimodal learners and 20% multimodal learners. Kinesthetic was found to be the most favoured learning style of the learners. Riazi and Riasati (2007) carried out a research to identify the learning styles of a group of 219 Iranian learners of English language. The investigators used a language learning styles questionnaire to measure their learning styles. The result of the study displayed communicative learning styles in pair or group as the predominant learning styles of the learners.



Erica, et al. (2007) endeavored to assess the preferred learning styles of 86 UG students of the department of physiology, Michigan State University. To measure the learning styles of the learners the researchers have used Fleming's VARK questionnaire. The findings of the research showed that 54.2% female and 87% male learners favoured multimodal learning styles and 12.5% learners favoured unimodal learning styles. Among the females, kinesthetic style was revealed to be the most preferred learning style and auditory was the less preferred one.

III. Objectives of the Study

1. To identify the learning styles preferences of the final year UG students of Hooghly and Burdwan districts.
2. To study the learning styles preferences of the final year UG students of Hooghly and Burdwan districts in terms of their gender.
3. To comprehend the learning styles preferences of the final year UG students of Hooghly and Burdwan districts in terms of their place of residence.

IV. Hypotheses of the Study

H₀₁ There is no difference in learning styles preferences of the final year UG students of Hooghly and Burdwan district.

H₀₂ There is no difference in learning styles preferences between the final year UG students of Hooghly and Burdwan district in terms of their gender.

H₀₂ (1) There is no difference in learning styles preferences between the final year UG male and female students of Hooghly district.

H₀₂ (2) There is no difference in learning styles preferences between the final year UG male and female students of Burdwan district.

H₀₂ (3) There is no difference in learning styles preferences between the final year UG male students of Hooghly and the final year male students of Burdwan district.

H₀₂ (4) There is no difference in learning styles preferences between the final year UG female students of Hooghly and the final year female students of Burdwan district.

H₀₃ There is no difference in learning styles preferences of the final year UG students of Hooghly and Burdwan districts in terms of their location of residence.

H₀₃ (1) There is no difference in learning styles preferences of the final year UG rural and urban students of Hooghly district.

H₀₃ (2) There is no difference in learning styles preferences of the final year UG rural and urban students of Burdwan district.

H₀₃ (3) There is no difference in learning styles preferences of the final year UG rural students of Hooghly and the final year rural students of the degree colleges of Burdwan district.

H₀₃ (4) There is no difference in learning styles preferences of the final year UG urban students of Hooghly and the final year urban students of Burdwan district.



V. Methodology of the Study

- a) **Method of the Study:** To conduct this present research the researchers have used descriptive survey type method.
- b) **Population:** All the final year UG degree college students (majoring in English) of Hooghly and Burdwan district, West Bengal, India.
- c) **Sample and Sampling Technique:** To carry out the present study the researchers have collected data from 110 final year students studying English as their as their major subject from the degree colleges of Hooghly and Burdwan district, West Bengal, India. Random sampling method has been used to collect data.
- d) **Scale:** The researchers have used a self developed Learning Style Measurement Inventory, based on VAK model to measure the learning styles preferences of the chosen sample.
- e) **Statistics Used:** To analyze the collected data properly the researchers have used descriptive statistics like mean, standard deviation and inferential statistics like 't' test in SPSS version 26.
- f) **Procedure:** To conduct the study the researchers have used quantitative technique. Data has been accumulated through survey method with the consent of the respondents. All the subjects have been assured that their given information will be kept confidential and will be used only for research purpose.

VI. Findings and Discussion

Hypothesis Testing 1:

The total sample of the study was 110 undergraduate English students of Hooghly and Burdwan districts. Among the 110 participants 35% learners showed their preference for visual learning style, 31% preferred auditory mode of learning and 34% learners were found to be kinesthetic learners. A minute difference was exposed in the preference of learning styles of the final year UG students of Hooghly and Burdwan district. So, the null hypothesis (H_01) "There is no difference in learning styles preferences of the final year UG students of Hooghly and Burdwan district" is rejected.

Hypothesis Testing 2:

The result reported that among the final year male learners of Hooghly district 35% were visual learners, 31% preferred auditory mode of learning and 34% learners showed their preference for kinesthetic learning style. Besides, among the final year male learners of Burdwan district 34% were visual learners, 31% preferred auditory mode of learning and 35% learners showed their preference for kinesthetic learning style. Among the female learners of Hooghly district 35% were visual learners, 31% preferred auditory mode of learning and 34% learners showed their preference for kinesthetic learning style and among the female learners of Burdwan district 34% were visual learners, 31% preferred auditory mode of learning and 35% learners showed their preference for kinesthetic learning style.



The result revealed a minute difference in the preference of learning styles between the final year UG students of Hooghly and Burdwan district in terms of their gender. So, the null hypothesis (**H₀₂**) “There is no difference in learning styles preferences between the final year UG students of Hooghly and Burdwan district in terms of their gender” is accepted.

Hypothesis Testing 3:

Among the final year UG male students of Hooghly district 35% learners showed their preference for visual learning style, 31% preferred auditory mode of learning and 34% learners were found to be kinesthetic learners and among the female learners of Hooghly district 35% were visual learners, 31% preferred auditory mode of learning and 34% learners showed their preference for kinesthetic learning style. So, the null hypothesis **H₀₂ (1)** “There is no difference in learning styles preferences between the final year UG male and female students of Hooghly district” is accepted.

Hypothesis Testing 4:

Besides, among the final year male learners of Burdwan district 34% were visual learners, 31% preferred auditory mode of learning and 35% learners showed their preference for kinesthetic learning style and among the female learners of Burdwan district 34% were visual learners, 31% preferred auditory mode of learning and 35% learners showed their preference for kinesthetic learning style. Therefore, the null hypothesis **H₀₂ (2)** “There is no difference in learning styles preferences between the final year UG male and female students of Burdwan district” is accepted.

Hypothesis Testing 5:

Among the final year male learners of Hooghly district 35% learners showed their preference for visual learning style, 31% preferred auditory mode of learning and 34% learners were found to be kinesthetic learners and among the final year UG male students of Burdwan district 34% were visual learners, 31% preferred auditory mode of learning and 35% learners showed their preference for kinesthetic learning style. The difference between the final year UG male students of Hooghly and the final year male students of Burdwan district is insignificant. So, the null hypothesis **H₀₂ (3)** “There is no difference in learning styles preferences between the final year UG male students of Hooghly and the final year male students of Burdwan district” is accepted.

Hypothesis Testing 6:

Among the female learners of Hooghly district 35% were visual learners, 31% preferred auditory mode of learning and 34% learners showed their preference for kinesthetic learning style and among the female learners of Burdwan district 34% were visual learners, 31% preferred auditory mode of learning and 35% learners showed their preference for kinesthetic learning style. So, the null hypothesis **H₀₂ (4)** “There is no difference in learning styles preferences between the final year UG female students of Hooghly and the final year female students of Burdwan district” is accepted.



Hypothesis Testing 7:

The result reported that among the final year rural learners of Hooghly district 35% were visual learners, 31% preferred auditory mode of learning and 34% learners showed their preference for kinesthetic learning style. Besides, among the final year rural learners of Burdwan district 34% were visual learners, 31% preferred auditory mode of learning and 35% learners showed their preference for kinesthetic learning style. Among the final year urban learners of Hooghly district 35% were visual learners, 31% preferred auditory mode of learning and 34% learners showed their preference for kinesthetic learning style and among the urban learners of Burdwan district 34% were visual learners, 31% preferred auditory mode of learning and 35% learners showed their preference for kinesthetic learning style. The result revealed a minute difference in the preference of learning styles preferences between the final year UG students of Hooghly and Burdwan district in terms of their place of residence. So, the null hypothesis (**H₀₃**) “There is no difference in learning styles preferences between the final year UG students of Hooghly and Burdwan district in terms of their place of residence” is accepted.

Hypothesis Testing 8:

Among the final year UG rural students of Hooghly district 35% learners showed their preference for visual learning style, 31% preferred auditory mode of learning and 34% learners were found to be kinesthetic learners and among the urban learners of Hooghly district 35% were visual learners, 31% preferred auditory mode of learning and 34% learners showed their preference for kinesthetic learning style. So, the null hypothesis **H₀₃ (1)** “There is no difference in learning styles preferences between the final year UG rural and urban students of Hooghly district” is accepted.

Hypothesis Testing 9:

Besides, among the final year rural learners of Burdwan district 34% were visual learners, 31% preferred auditory mode of learning and 35% learners showed their preference for kinesthetic learning style and among the urban learners of Burdwan district 34% were visual learners, 31% preferred auditory mode of learning and 35% learners showed their preference for kinesthetic learning style. Therefore, the null hypothesis **H₀₃ (2)** “There is no difference in learning styles preferences between the final year UG rural and urban students of Burdwan district” is accepted.

Hypothesis Testing 10:

Among the final year rural learners of Hooghly district 35% learners showed their preference for visual learning style, 31% preferred auditory mode of learning and 34% learners were found to be kinesthetic learners and among the final year UG rural students of Burdwan district 34% were visual learners, 31% preferred auditory mode of learning and 35% learners showed their preference for kinesthetic learning style. The difference between the final year UG male students of Hooghly and the final year male students of Burdwan district is insignificant.



So, the null hypothesis **H₀₃ (3)** “There is no difference in learning styles preferences between the final year UG rural students of Hooghly and the final year rural students of Burdwan district” is accepted.

Hypothesis Testing 11:

Among the urban learners of Hooghly district 35% were visual learners, 31% preferred auditory mode of learning and 34% learners showed their preference for kinesthetic learning style and among the urban learners of Burdwan district 34% were visual learners, 31% preferred auditory mode of learning and 35% learners showed their preference for kinesthetic learning style. So, the null hypothesis **H₀₃ (4)** “There is no difference in learning styles preferences between the final year UG urban students of Hooghly and the final year urban students of Burdwan district” is accepted.

VII. Major Findings of the Study

The findings of the present study revealed that the final year UG students of Hooghly and Burdwan district are multimodal learners showed their preferences for Visual, Auditory and Kinesthetic mode of learning. The major findings of the study reported that there is no difference in learning styles preferences between the final year UG students of Hooghly and Burdwan district in terms of their gender and place of residence.

VIII. Discussion

The existing body of research indicates that several studies have been made to identify the learning styles preference of different learners as well as differences in learning styles among the learners using different models and methods of learning styles (Norhasanah & Yusuf, 2022; Rafique, 2017; Mkonto, 2015; Veena & Sastri, 2013; Erica, et al., 2007). Fleming’s VARK questionnaire and Reid’s Perceptual Learning Style Preference Questionnaire are found to be the most common instrument to measure the learning styles of the learners. The findings of the study revealed that the participants have varied learning style preferences (Norhasanah & Yusuf, 2022; Rafique, 2017; Mkonto, 2015; Veena & Sastri, 2013; Erica, et al., 2007). Beside, identifying the dominant learning styles of the learners this present research is concerned about the difference in learning styles of the final year students of the degree colleges of Hooghly and Burdwan. The investigator of this present study has used a self developed questionnaire constructed on the basis of VAK (Visual, Auditory and Kinesthetic) model of learning style. 110 final year UG students who are studying English as their major subject in the degree colleges of Hooghly and Burdwan districts participated and complete the questionnaire properly. The findings of the study reported that the final year students of the degree colleges of Hooghly and Burdwan districts of West Bengal possess nearly an equivalent learning styles preferences. No significant differences have been found in the learning styles preferences of the final year students of the degree colleges of Hooghly and Burdwan districts of West Bengal.



IX. Conclusion

The investigator has carried out this present research to find out the preferred learning styles as well as the difference between the learning styles preferences of the final year students of the degree colleges of Hooghly district and Burdwan district in regard to their gender and place of residence. Quantitative method has been used to conduct the research. The researcher has used VAK learning style questionnaire to collect data and to measure the learning styles of the subjects. Collected data has been computed and analyzed properly using suitable statistical tools. Mean, standard deviation are calculated using 't' test in SPSS version 26.0. Finally, the result of the study reported, there is no significant difference between the learning styles preferences of the final year students of the degree colleges of Hooghly district and Burdwan district in regard to their gender and place of residence. As no statistically significant difference is revealed, it can be concluded that the preference level of learning styles of both the districts are quite equivalent. Commonality in their geographical and cultural location can be an influencing factor behind such equivalent learning style that is a matter of further investigation. On the basis of the study, it can also be argued that gender and place of residence do not play any significant role on the preference of learning styles.

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