



## Preferred Learning Style Among First Year Nursing Students in A Private Medical College – A Pilot Study

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### ABSTRACT

**Introduction:** The learning style modality has gained utmost importance in modern world as imparting education to its fullest knowledge is the aim of the teachers. The style of learning being multimodal, a well known Memletics questionnaire employing the seven modalities of learning has been used to understand the preferred learning style among the students of medical education. **Objectives:** To identify the preferred learning modality among the first year students of B.Sc. Nursing and to assess any gender variation in their preferences. **Methods:** 25 first year undergraduate nursing students of both the genders were taken. Their identity was noted and they were asked to fill in the Memletics questionnaire. Students were asked to select their best preferred answer and the results were scored with Memletics scoring chart and analysed statistically with SPSS software. **Results:** Mode distribution analysis of the preferred learning style was suggestive of social learning style to be more predominant among the students, followed with the physical and visual learning preferences. One way ANOVA test had no significance in the gender variation in the preferred learning style. Although the male students preferred social style and female students preferred visual style of learning. **Conclusion:** This social type of learning preference can be employed by the teaching faculty as small group discussion or interactive lecture sessions to make learning an interesting evolution.

**KEYWORDS :** learning style, nursing, Memletics questionnaire

### Introduction:

Education has varied diversity in the modern world with wide range of courses. The importance of education is imparted best to the students by aiding them in their learning behaviour. Learning is basically a physiological process with acceptance and retaining of information. As the students have their individuality and varied interests, their learning styles are also varied. Several studies have identified the learning styles among the students. The different learning styles were initially appreciated by Kolb. It was further expanded by several other researchers Felder, Dunn, Gregorc, VARK. Hawk et al have reviewed all the learning styles and compared the specifics of the different modalities (1).

Based on their research several learning styles were proposed. Several studies have identified multimodal learning more preferred than unimodal (2). A simple to use are the learning styles based on Visual, Aural, Verbal, Physical, Logical, Social and Solitary learning behaviours. The identification of learning style modalities are tried among the students of different fields. A study by Hill et al have studied the learning preferences among engineering and social science disciplines and have identified the predominance of logical type of learning among engineering students and social type of learning among the social disciplines yet they have not included professionals in the medical settings (3).

This concept was proposed to identify the preferred learning modality among the professional health learners in the medical fraternity. This article is basically a pilot study among one group of students in a private medical college. Various studies have been formulated using the seven modalities of learning. One such prominent questionnaire is the Memletics questionnaire proposed by Whitley, includes the seven modalities of learning such as Visual, Aural, Verbal, Physical, Logical, Social and Solitary. A study by Mahdi et al has applied this questionnaire among the students in identifying the preferred learning style

and gender differences (4). A study by Felder et al have highlighted that though there are varied styles of learning, each modality has its own advantage and it pertains to the individual, and have also suggested that if the preferred modalities match to the teaching technique the information is retained for a longer duration (5). Up to our knowledge this study is first of kind using the Memletics questionnaire among the nursing students.

### Objectives:

- To identify the learning modality preference among the Nursing students
- The assess any gender variation in the learning style preference

### Methodology:

This study population included the 25 undergraduate students, studying first year Nursing, and were attending classes in ACS Medical College. The participant included both genders. The study was started after the approval from the Institutional Ethics Committee and followed the ethical principles. The students Identity, Gender and the course assigned are noted. The Memletics questionnaire containing 70 questions relating to the seven modalities of learning, was distributed among the students and the students were encouraged to choose their best preferred answer. The sheets were collected and analysed to identify the most attributed learning style and compared for any gender preferences.

The statistical analysis was done with SPSS software version 21.

### Results:

**Table 1: Mean distribution of varied learning styles**

Variables	Mean ± Standard deviation
Visual	13.56 ± 2.5

Verbal	11.84 ± 2.1
Aural	12.96 ± 2.9
Physical	13.72 ± 2.8
Logical	11.32 ± 2.5
Social	13.68 ± 2.8
solitary	10.8 ± 2.9

The above table highlights the mean distribution of varying learning modalities. And there is predominance of social learning method among the students.

**Table 2: One Way ANOVA Significance of learning style preference among varied gender**

variables	Mean ± standard deviation		Sig.
	Male	Female	
Visual	13± 1.52	13.78 ±2.73	.508
Verbal	12.28± 2.69	11.67± 1.91	.522
Aural	13.71± 1.6	12.67± 3.37	.334
Physical	13.43± 2.29	13.83± 3.07	.735
logical	11.57 ±1.9	11.22± 2.76	.928
Social	15.29± 1.8	13.06± 2.9	.082
solitary	10.57± 2.23	10.89± 3.19	.855

The above table describes the gender variation of the learning style preferences with no statistical differences between the male and female learning styles. (P value > 0.05)

**Discussion:**

This pilot study employed 25 students studying B.sc. Nursing in a private medical college. The Predominant learning styles has been analysed using the Memletics questionnaire. The learning styles being Visual, Verbal, Aural, Physical, Logical, Social and solitary are analysed with the Memletics scoring chart and further predominance of the learning style is statistically analysed. As similar to the other study no single modality of learning is preferred. It is understood that among the multimodal learning styles the predominance is mainly towards the social style of learning with mean = **13.68 ± 2.8**. The Physical modality of learning using the kinaesthetic sensations and the visual method were the next most preferred method with mean = 13.72 ± 2.8 and 13.56 ± 2.5 respectively. This could relate to the group learning and interactive lectures which can be a benefit to these students. This is similar to the study by Aranya et al who studied the preferences among the students of English major (6). Also our study further advanced to understand the gender differences among the learning styles. One ANOVA test was suggestive of no significance differences among the learning styles between the male and female students (P value > 0.05). This is similar to the study by Baykan et al, where there was no gender differences in the learning styles among the medical students (7) . Though not statistically significant male students preferred social modality of learning with mean = 15.29± 1.8 and the female students favoured visual modality of learning with mean = 13.78 ±2.73. Hence the teaching modality can be of similar type to both the sets of students.

**Conclusion:**

The analysis on the learning preferences among each discipline of medical students will advocate the teacher to accord the specific learning modality to the particular group. Identification of these learning styles will enable the teachers to confer small group teaching and interactive lecture sessions according to the preferences and the faculty members should also encourage students to experience other modalities of learning, all of which may have a benefit on the academic outcome. Our next best step is to encourage the faculty members to use this method of teaching among these students so as to make learning joyful and as well achieve higher academic standards. This study is also further proposed on the other courses of medical education.

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