

Preferred Learning Styles of Medical and Physiotherapy Students

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Abstract

Background: Learning styles are the ways students learn, intake and process new information. The contribution of learning styles for educational quality is evident and have important implications to develop effective curricula. Teachers can effectively plan instructional activities if they know the learning styles of students. This study was conducted to find out the preferred learning styles of medical and physiotherapy students.

Methods: This cross sectional descriptive study was conducted at Azra Naheed Medical College Lahore from January to March 2014. Honey and Muffard Learning Style Questionnaire (LSQ) was used to assess the preferred learning styles. The medical students of 3rd year and 6th semester physiotherapy class were invited for the study. The collected data was organized and analyzed by the use of statistical tools.

Results: 120 students participated in this study, out of which 60 (50 %) were students of MBBS class whereas 60 (50 %) were of physiotherapy class. 48 (40%)

were male students and 72 (60%) were female students. Both the groups have reflector as dominating learning style with a minor difference of (40%) and (42.5%) for medical and physiotherapy respectively.

Conclusion: Students have different learning styles and require versatile instructional and assessment strategies. Preferred learning style of medical and physiotherapy students found in this study is reflector, however all the learning styles are present in both groups.

Key Words: Learning Styles. Learning Style Questionnaire, Reflector, Pragmatist, Theorist, Activist.

Introduction

Learning styles are the ways students learn, intake and process new information.¹ Generally students have diverse types of learning styles and it is not possible to fix a better learning style.² This diversity is related with ethnicity, culture, age, experience, environment and knowledge level of the learners.¹ Research Studies draw different conclusions about the learning styles.³ It is important to understand the learning style of students as the learning styles of teachers and students are not the same.⁴ The contribution of learning styles for educational quality is evident and have important implications to develop effective curricula.⁵ Some researchers point out that learning styles, teaching styles and assessment are interlinked with each other.⁶

Teachers can effectively plan instructional strategies and relevant activities if they know the learning styles of students.⁷ Similarly the knowledge of learning styles will help the teachers to solve the learning problems of the learners.⁸ Quality of learning process can easily be enhanced by matching the learning styles of students with the teaching methodology adopted by the faculty members. As a result the students will become more confident to manage their learning in the

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classes.¹ The understanding of personal learning style is also necessary for self directed and life log learning.⁹

Keeping in mind the above mentioned scenario, this study was conducted to find out the preferred learning style of the MBBS and DPT students at Azra Naheed Medical College Lahore.

Methods

This was an observational, cross sectional study, conducted at Azra Naheed Medical College Lahore from January to May 2014. Using the non probability, convenient technique of sampling, the students of 3rd year MBBS class and 6th semester DPT class were invited to participate in this study. Honey and Muffard Learning Style Questionnaire (LSQ) was used to assess the preferred learning styles of both groups.¹⁰ Other than the questions of Honey and Muffard Learning style questionnaire (LSQ) the students were also asked to provide the data regarding age, gender, previous education, education of parents and family residential status. The two groups were approached separately in a lecture halls. After taking the consent, the authors explained the purpose and objective of the study. The format of the Learning Style Questionnaire (LSQ) was explained and different queries raised by the participants were clarified. The participants were given 30 minutes time to fill this questionnaire. The data collected from 120 participants was organized in two groups of 60 MBBS and 60 DPT students. Each questionnaire was analyzed to find out the preferred learning style of individual student. The data was categorized into four learning styles described by Honey and Muffard.¹¹ A fifth category of two or more than two learning styles was also created. This data was entered in statistical package for social sciences (SPSS) version 16. Preferred learning styles of both study groups were presented in the form of frequencies and percentages.

Results

The Honey and Muffard Learning Style Questionnaire (LSQ) describe four different learning styles including activist, reflector, pragmatist and theorist.¹¹ 120 students participated in this study, out of which 60 (50%) were of MBBS class whereas 60 (50%) were of DPT class. 48 (40%) were male students and 72 (60%) were female students. Table 1 represent the residential status of students. 71 (59.2 %) students were of rural background, 14 (11.7 %) of urban families where as 35

(29.2%) participants were having mix rural and urban residences. Parents education status of participants is represented in Table 2. The students were asked to provide information about the education of any one or both of the parents. 47 (39.2%) were bachelor degree holders, 41 (34.2%) were master or above the master degree level. 23 (19.2%) were intermediate where as 9 (7.5%) parents were below the level of intermediate degree. Figure 3 and table 4 represents the preferred learning style of both MBBS and DPT students. Reflector is the single dominating learning style among the both groups where as the single second preferred style (16.7%) among both groups is Pragmatist. However the second preferred learning style among both groups is the mix of different styles (23.3%) as presented in Figure 3. The comparison of both groups is presented in Figure 4. It is evident from the results that both the groups have reflector as dominating learning style with a minor difference of (40%) and (42.5%) for MBBS and DPT classes respectively.

Table 1: Residence.

	Frequency	Percentage
Rural	71	59.2
Urban	14	11.7
Mix	35	29.2

Table 2: Parents Education.

	Frequency	Percentage
Below Intermediate	41	34.2
Intermediate	23	19.2
Bachelor	47	39.2
Master or Above	9	7.5

Table 3: Preferred Learning Style.

	Frequency	Percentage
Reflector	51	42.5
Mix	28	23.3
Pragmatist	20	16.7
Theorist	12	10
Activist	9	7.5

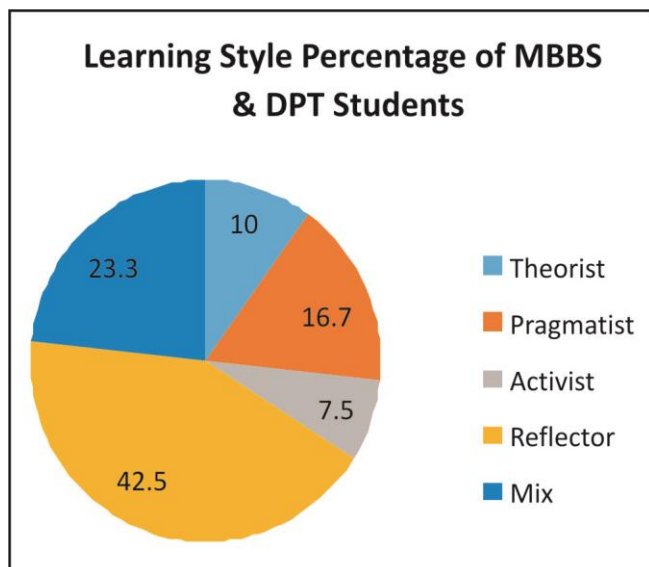


Fig. 1: Preferred Learning Style of MBBS & DPT Students.

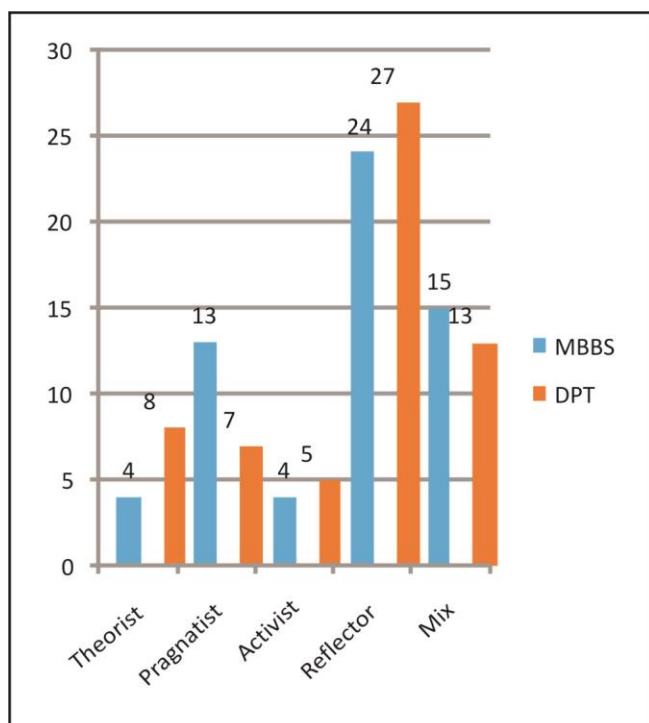


Fig. 2: Comparison of Preferred Learning Style of MBBS and DPT Students.

Discussion

Based on the experiential learning theory, four types of learners were identified.¹² Activist is a person who, enjoys new experiences, and tends to make decisions intuitively, but dislikes structured procedures. Theorist focuses on ideas, logic and systematic planning, but

are mistrustful of intuition and emotional involvement. Pragmatist likes practicality, down-to-earth approaches, group work, debate and risk-taking but tends to avoid reflection and deep levels of understanding. Reflector observes and describes processes, try to predict outcomes and focus on reflecting and trying to understand meaning. Honey and Mumford (1995) claimed that an individual tends to rely naturally on one of these approaches when they are engaged in learning or other task activities.¹² The result of this research shows that reflector is the preferred learning styles in both the study groups. However all the learning styles are present (in variable proportion) in both the study groups. The presence of all the four learning styles in a class shows that the use of single teaching methodology is not suitable for the entire class. The preferred learning style should be kept in mind while designing the teaching and learning activities. Reflector as the preferred learning style in both the groups in this study differs from the result of another study at army medical college Rawalpindi which shows that undergraduates are predominately activist and postgraduate are reflectors.¹³ The results of another study represent that postgraduate residents of pediatrics are predominately reflectors.³ The data to compare these results is deficient among the medical students but the non medical students and professionals are mostly reflectors and pragmatists.¹⁴ This study shows that the Honey and Mumford Learning style Questionnaire (LSQ) can be used effectively to map the learning style of a class and to design instructional strategy accordingly. The study provides a learning style guidance for MBBS, DPT students and teachers.

Conclusion

Medical students have different learning styles and require versatile instructional and assessment strategies. Preferred learning style of medical and physiotherapy students found in this study is reflector, however all the learning styles are present in both groups. There is a growing need to study the preferred learning styles of medical students in Pakistan so that the faculty members can design matching learning activities. It will definitely help to improve the learning process and its outcome.

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