

Preference of Sequential and Global Learning Among Higher Education Students - A Survey

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Abstract

Introduction: Sequential learners prefer to organise information in a linear, orderly fashion. They learn in logically sequenced steps and work with information in an organised and systematic way. Global learners prefer to organise information more holistically and in a seemingly random manner without seeing connections. In this study, we aim to learn the preference of learning style between global and sequential learning among higher education students. **Materials and methods:** A cross-sectional study was conducted through an online survey from February to April 2021 among 100 undergraduates. Ethical approval for the study was obtained from the Institutional Review Board [IRB], Saveetha Dental College. Data were analyzed with the SPSS version [22.0]. The final results were represented in pie chart form. **Results:** the preference of learning styles were [57.69%] preferred sequential learning and the remaining [42.31%] preferred global learning. **Conclusion:** Most of the students prefer to learn in logically sequenced steps and work with information in an organized and systematic way. Thus the way of teaching and curriculum should be in favour of sequencing learning for better understanding of students.

Keywords: global learning, higher education students, sequential learning, innovative method.

1. Introduction

There are 4 patterns consistent with the Index of Learning style. The first kind represents personal choices for the processing of facts that are lively to reflective getting to know. The 2nd pertains to how a person prefers to understand facts like sensors [sensory, facts] or intuition [theories]. The third issues itself with the mode of fact reception that is visible to verbal communication. The fourth domain, that's the particular cognizance of this paper, examines how a person develops an know-how thru the shape and organisation of facts withinside the getting to know environment this is sequential and international getting to know choices[1]

Sequential novices favour preparing records in a linear, orderly fashion. They examine logically sequenced steps and paintings with records in a prepared and systematic way. Global novices favour preparing records greater holistically and in an apparently random way without seeing connections. They regularly seem scattered and disorganised of their questioning but regularly arrive at an innovative or accurate quit product [2]. A considerable number

of studies have analysed the learning style profiles of students using the Felder-Silverman model.

In general, research consistently evidences that the most common learning styles reported by medical students are sensing, visual, and sequential [3]

Research on students' studying patterns has proven that options of those studying patterns additionally fluctuate throughout exclusive streams and guides from engineering to sciences, to humanities, architecture, pharmacy, and fitness sciences [4–6] The frame of knowledge, cease goals of every of those guides, the coaching strategies, and surroundings all play a element in shaping and reinforcing the studying method options of various corporations of students. In this study, we aim to learn the preference of learning style between global and sequential learning among higher education students. Our team has extensive knowledge and research experience that has translate into high quality publications [7].[8–21] ,[22–26]

2. Materials and Methods

A cross-sectional study was conducted through an online survey from February to April 2021 among

100 undergraduates. A simple random sampling was used to select the study participants. All the dental students who were willing to participate were included. Returning the filled questionnaire was considered as implicit consent as a part of the survey. Ethical approval for the study was obtained from the Institutional Review Board [IRB], Saveetha Dental College. A self-administered questionnaire of close-ended questions was prepared and it was distributed among dental students from February to April 2021 through the online survey "google forms". The collected data were checked regularly for clarity, competence, consistency, accuracy, and validity. Demographic details were also included in the questionnaire. Data was analysed with the SPSS version [22.0]. Descriptive statistics as percent were calculated to summarise qualitative data. Chi-square test was used to analyse and is represented in a pie chart form.

3. Results and Discussion

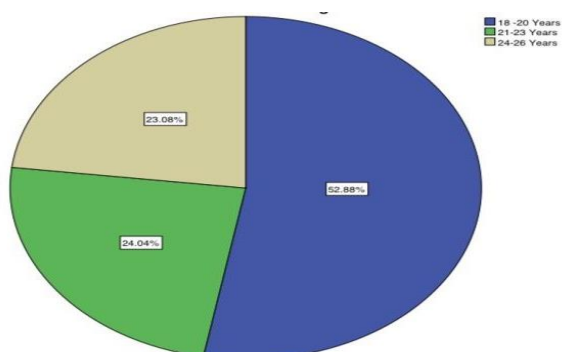


Fig 1: The pie chart depicts the age of the participants were 18 to 20 years [52.88%][blue], 21 to 23 years [24.4%][green], and remaining [23.8%][brown] 24 to 26 years.

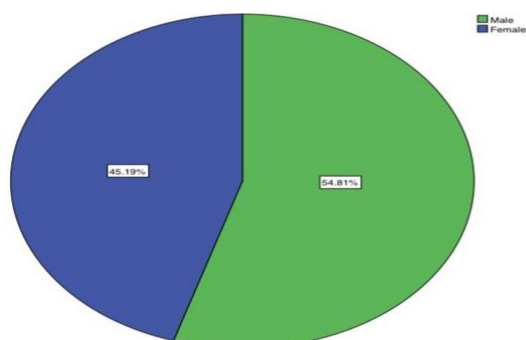


Fig 2: The pie chart represents the gender of the participants where 54.81% were males[green] and 45.19% were females[blue].

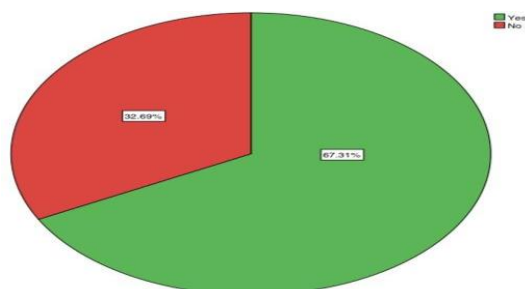


Fig 3: The pie chart represents the awareness about global and sequential learning where [67.31%][green] were aware and the remaining [32.69%][red] were not aware.

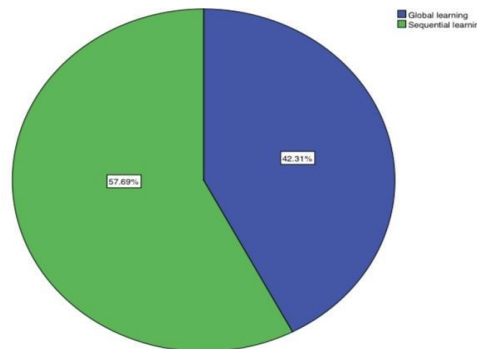


Fig 4: The pie chart represents the preference of learning styles where [57.69%][green] preferred sequential learning and the remaining [42.31%][blue] preferred global learning.

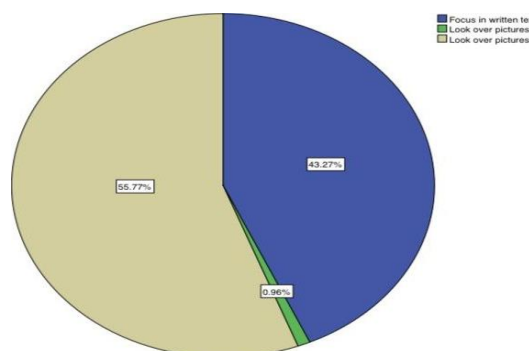


Fig 5: This pie chart represents the preference in a book with a lot of pictures and charts where [55.77%][brown] prefer to focus on the written text and [43.27%][blue] prefer to look over pictures and diagrams.

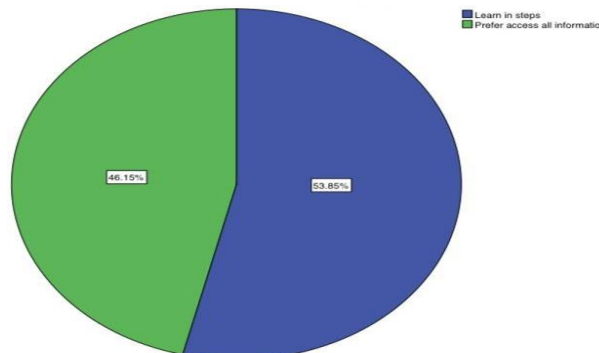


Fig 6: This pie chart represents the preference of the participants where [53.85%][blue] opted to learn in steps and [46.15%][green] opted to access all information.

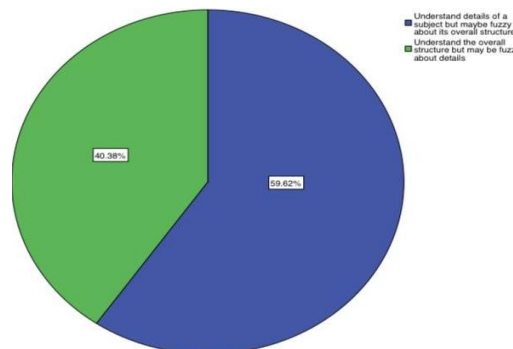


Fig 7: The pie chart represents the preference of participants where [59.62%][blue] understands details of a subject but may be fuzzy about its overall structure and [40.38%][green] understands the overall structure but may be fussy about details.

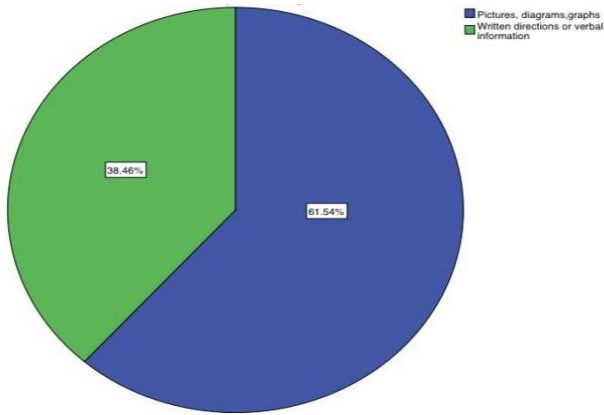


Fig 8: The pie chart represents the preference of participants where [61.54%][blue] prefers to get information in pictures, diagrams, and graphs. [38.46%][green] prefer to get information in written directions or verbal information.

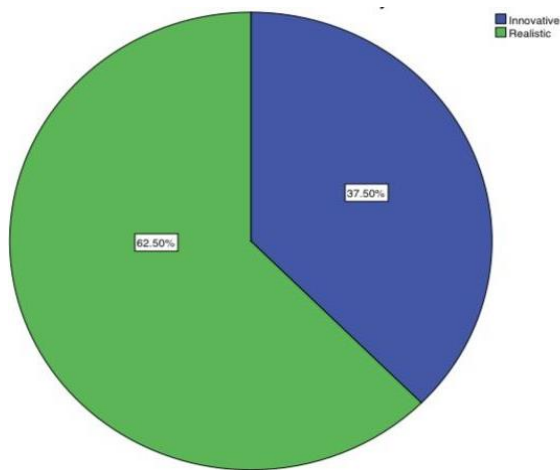


Fig 10: This pie chart represents how the participants consider themselves where [62.50%][green] consider themselves as realistic and [37.50%][blue] consider themselves innovative.

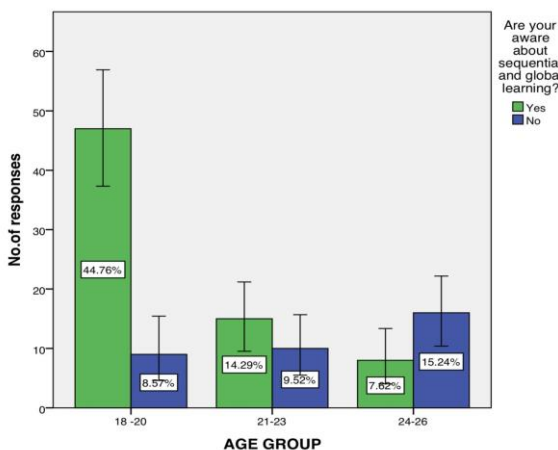


Figure 11: The bar graph depicts the association between age and the respondent’s awareness about global and sequential learning. The X-axis represents the age and the Y axis represents the percentage of respondents. The green bar denotes who was aware of the learning styles and the red bar denotes who was not aware. The 18 to 20 years were more aware of the learning styles than 24 to 26 years. The chi-square test was analyzed and [p< 0.05] and statistically significant

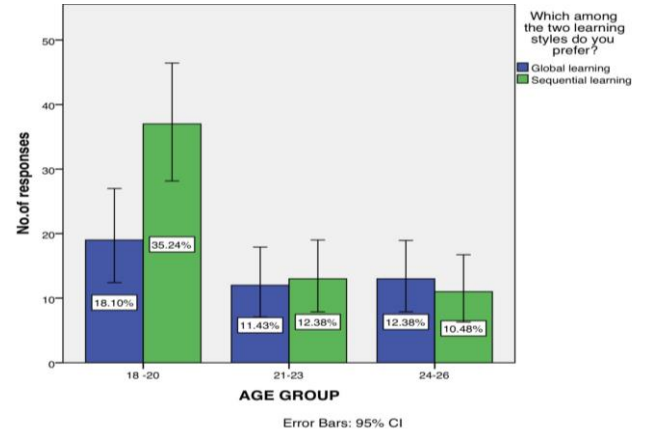


Figure 12: The bar graph depicts the association between age and the respondent’s preference on global and sequential learning. The X-axis represents the age and the Y-axis represents the percentage of respondents. The green bar denotes preference of the sequential styles and the blue bar denotes global learning styles. The 18 to 20 years preferred sequential learning more than 24 to 26 years. The chi-square test was analysed and [p< 0.05] and statistically significant.

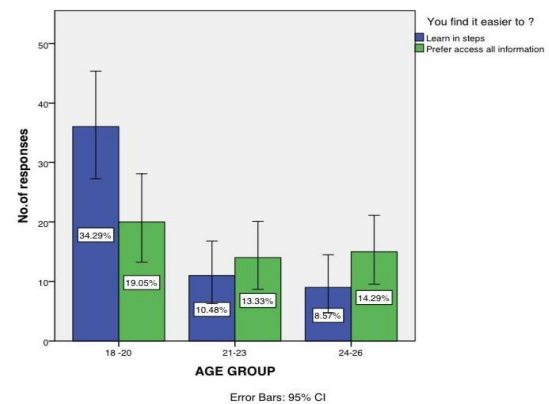


Figure 13: The bar graph depicts the association between age and the respondent’s preference for learning based on steps and access to all information. The X-axis represents the age and the Y-axis represents the percentage of respondents. The green bar denotes preference to access all information and the blue bar denotes learning in steps. The 18 to 20 years preferred to learn in steps more than 24 to 26 years. The chi-square test was analysed and [p< 0.05] and statistically significant.

A total of 100 participants participated in the survey where ages of the participants were 18 to 20 years 52.88%, 21 to 23 years 24.4%, and the remaining 23.8% 24 to 26 years. The gender of the participants was 54.81% males and 45.19% were females. The awareness about global and sequential learning where 67.31% were aware and the remaining 32.69% were not aware. The preference of learning styles were 57.69% preferred sequential learning and the remaining 42.31% preferred global learning. The preference in a book with a lot of pictures and charts where 55.77% prefer to focus on the written text and 43.27% prefer to look over pictures and diagrams.

The preference of the participants were 53.85% opted to learn in steps and 46.15% opted to access all information. The preference of participants where 59.62% understand details of a subject but may be fuzzy about its overall structure and 40.38% understand the overall structure but may be fussy about details. The preference of participants where 61.54% prefer to get information in pictures, diagrams, and graphs. 38.46% prefer to get information in written directions or verbal information. The participants consider themselves where 62.50% consider themselves as realistic and 37.50% consider themselves innovative.

There isn't any big distinction among sequential and global newbies in making explanations. The global learner possesses the better cap potential in making explanations than sequential learner thru the records studying content material is frequently taught chronologically, which with the aid of using following the length and conversion of time. A sequential learner learns high-quality whilst they may be taught in levels with linear steps wherein every step follows the closing logically. [27]They will find the most logical way to get to an answer using step-by-step paths to find solutions. Sequential learners may not understand the full picture until they know and understand all the steps and how to get to the final answer, because they will logically be able to put all the material together.[28,29]Sequential learners should use the material they have been taught and order it in a logical way that makes sense to them. [30] They will be able to follow these steps to find answers in other places and to other problems[31] Global learners learn in large jumps, taking in material and information randomly without making links between the information and then understanding it suddenly. [32] A global learner may not understand the work until they know everything and then they could suddenly just understand what they have been taught. The sequential learners can learn best by showing an outline or organised structure for the presentation of new material. [33]Building presentation of new material in steps that lead to the main concept or idea. Starting with simpler concepts and building up to more complex ideas. Global learners can learn best by giving a short overview of the topic before jumping into the details. [34] Drawing connections from specific details or information to the larger concepts. Having them work on problems or issues that encourage creative approaches rather than the application of a sequence of steps. [35]

The limitation of the study was that it was conducted only among higher education students. Only two among all the learning styles were taken to study. Further studies should include all the learning styles for a better understanding of preferences.

4. Conclusion

From the results of the survey, among the preference of two learning styles sequential and global learning style, the majority of the participants [57.69%

preferred sequential and the remaining [42.31%] preferred global learning. This shows us that most of the students prefer to learn in logically sequenced steps and work with information in an organised and systematic way. Thus the way of teaching and curriculum should be in favour of sequencing learning for better understanding of students.

5. Acknowledgement

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6. Conflict of Interest

The authors would like to declare no conflict of interest in the present study.

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