

ASSESSMENT OF TEACHING METHOD PREFERENCES AMONG DENTAL AND MEDICAL STUDENTS

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ABSTRACT

Objectives: The objectives of this study were to evaluate the teaching approach choices among dental and medical college students.

Methodology: This survey examines how medical and dental students use their visual, auditory, reading-writing, and kinesthetic senses. It is a descriptive cross-sectional survey.

Results: According to VARK, it was found in the current survey that most students chose a single mode of learning (uni modal) – roughly 77% of clinical students and 83% of dentistry students. Tri modal was found to be the least preferred among medical students, with bi modal coming in second with 22% of scientific students and 15% of dentistry students. About 1% of dentistry students were observed using a quad modal method. A-auditory approach was found to be the most popular among medical students, with a median of 2.80, followed by utilizing OK-kinesthetic with a mean of 1.89, and R/W-studying or writing with a mean of 1.65 dentistry college students. A-auditory become the maximum desired approach with a median of two forty, accompanied by okay – kinesthetic with a mean of 2.01 and 1.67 for R/W – analyzing or writing

Conclusion: According to the study's findings, kinesthetic mode used most frequently to observe the auditory form of instruction. Both dentistry and medical students were shown to prefer the written style over the visual one. Most of the students selected more than one learning option or had multimodal options.

Keywords: Schooling, VARK, Medical, Dental.

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INTRODUCTION

A combination of mental, physiological, and personal traits called learning styles can be used to identify a person's learning preferences [1]. The coach and the students' awareness of their strengths and weaknesses as learners can be increased using information on learning styles [2,3]. Hess found that whereas women preferred a visual learning method, men preferred a sense learning technique. Dental training heavily relies on a blend of fictitious and realistic components. This complex nature emphasizes the importance of understanding dental student' preferences for teaching and assessment strategies [4]. The variety prompts dental educators to fulfill instructional standards and obtain laboratory support that helps them complete the goals of upcoming beneficial courses.

Learning style refers to a person's method of obtaining, perceiving, managing, and storing information for later use [5]. If there is confusion between teaching methods and students' learning preferences, the effective transfer of information from the instructor to the student may become complicated. A few methods are available to analyze learning styles. Neil Fleming's VARK poll is one of the most often used methods. He portrayed four tactile modalities: Sensation (R), Perusing/composing (R), and Visual (V) (K) [6].

METHODS

This questionnaire-based cross-sectional study was conducted at Dental and Medical department of Parul Inst of Medical Science and Research, Vadodara, Gujarat from year June 2021 to June 2022.

The review was expected to survey the showing technique inclinations among dental and clinical understudies of a similar establishment.

A survey including ten close finished questions which are in a roundabout way connected with the showing strategy inclinations was carried out.

Test size: Two hundred understudies of dental and clinical subsequent to taking informed assent from the members, the poll was dispersed among clinical and dental understudies and they were offered expected opportunity to stamp the fitting responses. Every one of the understudies denoted every one of the inquiries and returned the survey structure. After assortment, the information was placed in succeed sheets and was dependent on measurable examination.

Unmitigated information was communicated regarding counts and rates. Autonomous t-test was utilized to look at mean score among clinical and dental understudies. The information was broke down utilizing on the web test adding machine.

1. Imagine that you are figuring out how to play out another actual expertise like riding a bicycle or moving a specific style of dance. In what direction could you realize this expertise the best?
 - a. Look at pictures of individuals playing out the expertise
 - b. Listen to a specialist make sense of how far do the undertaking
 - c. Read about how to play out the errand in a book
 - d. Watch another person play out the ability and afterward attempting it yourself.
2. You will make supper something as an exceptional treat for your companions. You would:
 - a. Cook something you know without the requirement for directions
 - b. Ask companions for ideas
 - c. Glance through the cookbook for thoughts from the photos
 - d. Utilize a cookbook where you realize there is a decent recipe.

3. A gathering of family visit part needs to find out about the nursery in your space. You would:
 - a. Discuss, or organize a discussion for them about parks saves
 - b. Show them web pictures, photos, or picture books
 - c. Take them to a recreation area and stroll with them
 - d. Give them a book or handouts about the parks.
4. You are going to buy a savvy television. Other than value, what might most impact your choice?
 - a. Attempting or testing it
 - b. Perusing the insights concerning its highlights
 - c. It is a cutting edge plan and looks great
 - d. The sales rep enlightening me concerning its highlights.
5. I like sites that have:
 - a. Things I can tap on, shift or attempt
 - b. Fascinating plan and visual elements
 - c. Intriguing composed portrayals
 - d. Sound channels where I can hear music, radio projects or meetings.
6. Other than value, what might most impact your choice to purchase another PC?
 - a. The manner in which it looks is engaging
 - b. Rapidly perusing portions of it
 - c. A companion discusses it and suggests it
 - d. It has genuine stories, encounters and models.
7. You will pick food at a café or bistro. You would:
 - a. Pick something that you have had there previously
 - b. Pay attention to the server or request that companions suggest decisions
 - c. Browse the portrayals in the menu
 - d. Take a gander at what others are eating or check out at photos of each dish.
8. You need to make a talk at a meeting. You would:
 - a. Make outlines or get charts to assist with making sense of things
 - b. Compose a couple of watchwords and work on saying your discourse again and again
 - c. Work out your discourse and gain from perusing it more than a few times
 - d. Assemble numerous models and stories to make the discussion genuine and reasonable.
9. You are uncertain about whether a word should be spelled "reliant" or "dependent." You would:
 - a. See the words to you and pick by the manner in which they look
 - b. Ponder how each word sounds and pick one
 - c. Track down it in a word reference
 - d. Get the two words written down and pick one.
10. When you figured out how to do actual ability, for example, riding a bicycle. You learned best by:
 - a. Watching a show
 - b. Paying attention to someone making sense of it and clarifying pressing issues
 - c. Outlines and graphs – visual signs
 - d. Composed guidelines – for example, a manual or reading material.

RESULTS

Comparison of V, A, R, and K between dental and medical students:

Here, mean score given by dental and medical students is compared in V, A, R, and K.

We observed that there is no significant difference between dental and medical students with $p > 0.05$.

Among medical students, A-aural method was found to be the most preferred one with a mean of 2.80 followed by K-kinesthetic with a mean of 1.89, R/W-reading or writing with a mean of 1.65.

Among dental students, A-auditory was the most preferred method with a mean of 2.40, followed by K-kinesthetic with a mean of 2.01 and 1.67 for R/W-reading or writing (Table 1).

In the present study, according to VARK, it was found that most students preferred a single mode of (uni modal) learning style, about 77% among medical and 83% in dental students. Followed by bi modal learning system, that is 22% in medical and 15% in dental students and tri modal is found to be the least preferred among medical students about 1% followed by quad modal 1% among dental students (Table 2).

DISCUSSION

The two sides of a coin are learning and memory, without learning, memory cannot be strengthened. According to Keefe, learning style is the culmination of cognitive, emotive, and physiological dimensions that are impacted by external influences and work as the most potent tool at the disposal of educators to assess, inspire, and help pupils. It serves as the cornerstone of a truly contemporary approach to teaching [7].

When creating a course study, student learning is crucial. By taking into account the various learning preferences of their students, teachers may create a stronger foundation for more effective and appealing teaching strategies. The needs of dental practice in the 21 century must be met through undergraduate dental education. Although the complexities of the dental care increased dramatically over the past century, the method of teaching medicine has hardly changed. Recently, there is a widespread interest in the evaluation of the learning technique since its adoption [8].

Learning preferences help to make learning easier and enjoyable. In the present study, 77% among medical and 83% in dental students preferred unimodal learning, among them 58.44% among medical and 48.11% among dental students preferred auricular method.

About 22% of the students who favored multimodal learning were studying medicine, and 15% were studying dentistry. Trimodal VRK and VA were prevalent in bimodal. Other research concurred with this. Most pupils favored multimodal learning as they progressed through the grades. It could be because dentistry is a science and an art, requiring not just theoretical knowledge but also clinical labor, which

Table 1: Group statistics

	Group	Number (n)	Mean	SD	p-value
V (Visual)	Medical	100	2.80	±1.20	0.256
	Dental	100	2.40	±1.10	
A (Auricular)	Medical	100	1.79	±0.90	0.56
	Dental	100	1.89	±1.12	
R (Read/Write)	Medical	100	1.65	±1.0	0.67
	Dental	100	1.67	±1.32	
K (Kinesthetic)	Medical	100	1.89	±0.34	0.89
	Dental	100	2.01	±0.28	

($p < 0.05$ significant).

Table 2: Preference of learning method among medical and dental students

	Medical (n=100)	Dental (n=100)
V	6 (7.79%)	5 (6%)
A	45 (58.44%)	40 (48.19%)
R	9 (11.68%)	10 (12.04%)
K	17 (22.07%)	28 (33.73%)
Total	77	83
VA	5 (22.72%)	6 (40%)
VR	7 (31.81%)	6 (40%)
VK	2 (9.09%)	0
AR	3 (13.63%)	1 (6.6%)
AK	2 (9.09%)	1 (6.6%)
RK	3 (13.63%)	1 (6.6%)
Total	22	15
VRK	1 (100%)	1 (50%)
VARK	0	1 (50%)
Total	1	2

necessitates auditory, demonstrative, visual, and kinesthetic learning. Therefore, a multimodal approach to learning helps students master dental information. These kids must discuss what they are learning, write about it, connect it to prior experiences and knowledge, and apply it to their everyday life to accomplish meaningful learning [9].

The study's findings are consistent with earlier research by Uruval *et al* [10], Nasser AlQahtani *et al* [11], James *et al* [12], Abdallah *et al* [13], Slater *et al* [14], and Murphy *et al* [15], who also noticed that auditory and kinesthetic approaches were commonly used. However, the findings of this study appear to be at odds with those of Murphy *et al*'s [15] study as well as those of Ojeh *et al*'s [16] conclusion that the read-write model was the most popular learning method. This discrepancy could be explained by variations in the premedical level's preferred methods of instruction. The majority of the examinations given in the study by Murphy *et al*. were written tests, which is what caused the strong preference for reading and writing; in contrast, a variety of teaching techniques were used in the earlier studies mentioned above, which were not necessarily focused on the use of one technique only.

Practically, it is difficult to cover up the whole portion within stipulated time of teaching with preferred learning methods. In that case, we can at least promote students aware of their preferences and guide them.

There is strong evidence that individuals with different forms of learning impairments have modality-specific strengths and deficits (for instance, in the processing of visual, auditory, or kinesthetic information) [17]. In addition, the educators must take into account a person's choice for whether the tasks or activities are presented to appeal to the aural, visual, tactile, or kinesthetic senses (modality preference) [18].

The VARK philosophy promotes the idea that everyone can learn as long as their preferences are taken into account. In addition, VARK exhorts teachers to tolerate diversity and refrain from passing judgment on students. VARK supports the premise that students may learn in a variety of ways, provided that the teaching strategies are suitable for the students' learning preferences. The methodology promotes the idea that as long as students learn, it does not matter how they learn.

As teachers, it is our responsibility to evaluate each student and choose the best way to communicate with them by knowing how to offer knowledge in various ways. If we are aware of the kids' learning styles and can help them identify their preferences, we can support them more successfully both within and outside of the classroom.

CONCLUSION

According to the study's findings, kinesthetic mode used most frequently to observe the auditory form of instruction. Both dentistry and medical students were shown to prefer the written style over the visual one. Most of the students selected more than one learning option or had multimodal options.

AUTHORS' CONTRIBUTIONS

All authors have equally contributed in this research work.

CONFLICTS OF INTEREST

Nil.

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