

## **How do you learn best? Effective Teaching and Learning Style Preference**

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Do you prefer to have a map or written directions when you travel somewhere new? When you pick up a new book, do you buy a hard copy or the audiobook? As a student, did you write notes meticulously or prefer to have a more hands-on learning experience?

As described by Neil Fleming, there are four different modes of communicating information. Visual learners, are those that learn best when using graphs, flowcharts, or maps. Aural learners are those that prefer to learn by listening or discussing. Read/Write learners prefer learning by reading or writing new material. Kinesthetic learners are those that prefer multi-sensory experiences, including touch, smell, and taste.

In 2006, Lugan and Dicarlo asked first year medical students to participate in a survey to discover their learning style preferences. Of the 166 participants, ~5% preferred auditory information, ~5% preferred visual information, ~8% preferred information in the form of printed words, and 18% preferred kinesthetic learning, or learning from touch, smell, hearing, taste, and sight. The remaining 64% of students preferred to learn with multiple modes of information. The study concluded that by knowing students' learning style preferences, teachers could help to provide individualized learning experiences for their learners.

Although many of us are familiar with how we personally learn best, we often forget that others may have different learning styles than our own. Just as you may doze off looking at diagrams or tables, others may begin daydreaming if they are not provided with a visual during a lecture. Below, I've included some helpful tips for teaching students with varying learning style preferences. Whether we are teaching in a classroom or on clinical rounds, it is important to incorporate multiple modes of information. This will improve our teaching, and ultimately, our students' learning.

Visual:

- Utilize a powerpoint or videos to display important information
- Show pictures to learners or ask a patient to participate (impetigo or finger clubbing)
- Use a white board to draw diagrams, tables, or flowcharts

Aural:

- Verbally discuss important points with a group of learners
- Ask patients to participate in learning by sharing their own experiences
- Implement teach-back to provide learners additional opportunities to speak and listen

Read/Write:

- Offer lists or handouts for reading material
- Encourage learners to take notes
- Prompt learners to read outside of the hospital (UpToDate, research papers, etc.)

Kinesthetic:

- Provide learners with real-life examples or relevant cases
- Use metaphors that learners are familiar with to facilitate learning
- Ask patients to participate in teaching with physical exam findings (ascites or crackles)

Don't know your learning style -- whether you're a Visual, Aural, Read/Write, or Kinesthetic learner? Take the quiz here: <http://vark-learn.com/the-vark-questionnaire/>

References:

Lujan HL, and DiCarlo SE. "First-Year Medical Students Prefer Multiple Learning Styles." *Advances in Physiology Education*, vol. 30, no. 1, 2006, pp. 13–16.