

# Matching teaching and learning styles

*"The mediocre teacher tells.*

*The good teacher explains.*

*The superior teacher demonstrates.*

*The great teacher inspires."*

**William Arthur Ward**

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## Overview

What makes an effective clinical teacher?

What makes a good learner?

VARK learning styles

Honey and Mumford learning styles

Are learning styles a myth?

Teaching styles

Why does all this matter?

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## Effective clinical teachers

- Are clinically competent, non-judgmental and acts as a role model
- They are organised, build good relationships, good listeners and willing to learn themselves

## Many roles of the clinical educator

- Supervisor, mentor, coach, role model, parent, clinician, referee, educator, learner, advisor, evaluating students/examiner, curriculum designer, presenter/speaker
- Quality assurance, knowledge disseminator, listener, collaborator

## Good learners

- Seek and accept feedback
- Motivated and inquisitive
- Set goals for success
- Reflect on their progress
- Clarify expectations
- Self starter
- Think critically and solve problems
- Growth mindset
- Invest time to learn
- Take responsibility for their learning

## Learning styles

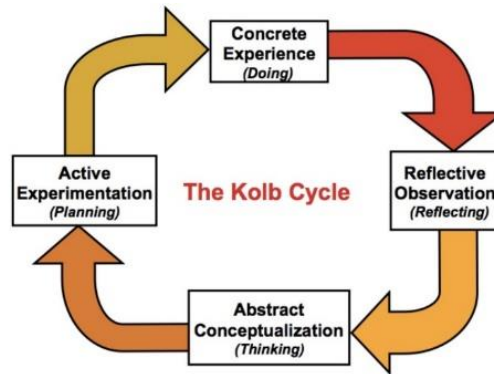
- Can be defined, classified, and identified in many different ways.
- Generally, they are overall patterns that provide direction to learning and teaching.
- Learning style can also be described as a set of factors, behaviors, and attitudes that facilitate learning for an individual in a given situation

## VARK Learning Styles

Type	Learns by	Learning tips
<b>Visual</b>	Sees to learn Like images Take notes Looks around	Spoken information is better with visual aids, video is a great learning tool, try to visualise things that you hear, write down key words, use drawings and mind maps, use colour – highlight, circle or underline the text
<b>Auditory</b>	Hears to learn Likes listening Good talker Chatterbox	Information will be better taken in if accompanied by audio Try reading out loud the information Repeat or chant the facts to remember them Discuss new concepts and ideas with a group Avoid noise when learning
<b>Kinaesthetic</b>	Moves to learn Likes hands-on Does to remember Gets fidgety	Training that uses examples to explain concepts Discuss what you have learned with someone, information accompanied by activity will stick better, move while you study, typing can help reinforce learning Take breaks – short study sessions interspersed with physical activity
<b>Read / Write</b>	Studies to learn Likes to read Big on notes Perfect student?	Read it yourself, hold on to handouts and notes, take lots of notes, writing notes helps to remember\once notes are taken – re-write them, when re-writing notes – put them in your own words to help remember concepts and facts better Translate a diagram into own words

## Honey and Mumford Learning styles

- Based on Kolb's cycle of learning



Type	Learns by	Learning tips
<b>Activist</b>	<p>Activists learn from new experiences or opportunities.</p> <p>They like problem solving and working in a group, they don't like learning lots of data or following precise instructions</p> <p>Flexible,</p> <p>Enjoy new situations,</p> <p>Happy to have a go,</p> <p>Thrive on new experiences, Not consider many choices</p> <p>Do too much themselves,</p> <p>Hog limelight,</p> <p>not sufficient preparation,</p> <p>Get bored easily</p>	<p>Brainstorming</p> <p>Problem solving</p> <p>Discussion</p> <p>Puzzles</p> <p>Competition</p> <p>Role play</p>
<b>Pragmatist</b>	<p>Pragmatists like to try out new ideas to the problem at hand.</p> <p>They learn best when emulating a role model or when they can try things with feedback from an expert, especially if the technique gives them clear practical advantages.</p> <p>They don't like learning if there is no clear guidelines or if there is no immediate benefit.</p> <p>Love testing things out in the real world, technique orientated, down to earth, business like, get straight to the point</p> <p>No 'things without an obvious application'</p> <p>Seize on the most expedient solution to the problem</p> <p>impatient</p>	<p>Case studies</p> <p>Problem solving</p> <p>Discussion</p>
<b>Theorist</b>	<p>Theorists want to understand the theory behind the action,</p> <p>They need models, concepts and facts and need to analyse and synthesise information,</p>	<p>Models</p> <p>Statistics</p> <p>Stories</p>

Type	Learns by	Learning tips
	They are uncomfortable with subjective assessments and don't learn well if the task is unstructured or ambiguous Vertical thinking, Rational and objective, Good at asking probing questions Restricted lateral thinking, Hate uncertainty/disorder, No subjective/intuitive	Quotes  Background information  Applying theories
<b>Reflector</b>	Reflectors learn by standing back and observing others, They prefer some time to review or investigate what has happened before acting. Reflectors don't learn well if put under time pressure or are forced to act without preparation Careful thoughtful, Thorough methodical, Love to listen and assimilate info, Rarely jump to conclusions Rare direct participation, Rarely reach a decision, Too cautious, Not assertive	Self-analysis questionnaires  Personality questionnaires  Observing activities  Feedback from others interviews

### Are learning styles a myth?

- The myth of preferred learning styles states that people learn better when they are taught in a way that matches their preferred style. Yet there is little evidence to support this claim, and plenty of reason to doubt it
- Teachers like to think that they can reach every student, even struggling students, just by tailoring their instruction to match each student's preferred learning format.
- However, students differ in their background knowledge, rates of learning, and how they prefer to receive information.
- It is true that different types of information are processed in different parts of the brain, that different regions of the brain predominately process auditory, visual and kinesthetic information.
- **BUT....**
- You can't learn a perfect French accent by seeing it
- Just because you are not a visual learner does not mean that you can't learn anything from anatomical drawings
- You need to sit in the driver's seat to learn to drive a car. You can't just listen to podcasts or watch videos.
- The same is true for ultrasound – it is a skill in the visual and kinesthetic domain. A good part of the teaching will need to be delivered visually or in practical sessions.
- We should instead match our teaching activities to the requirements of the topic being taught.

## Teaching styles

Style	Characteristics	Role in Ultrasound teaching
<b>Authority</b>	<p>The teacher is positioned as the expert and authority figure, and the students as the novices.</p> <p>Students are seen as “empty vessels” who receive knowledge imparted by their teachers.</p> <p>The strategy offers little to no student participation, making it impossible to meet the needs of each individual pupil.</p>	<p>The authority style is primarily used in a lecture or auditorium setting, whereby the teacher will give a lengthy, one-way discussion on a pre-assigned topic whilst students take notes and memorize key pieces of information. This style is not preferred for the practical sessions.</p>
<b>Demonstrator</b>	<p>The demonstrator retains authority in the classroom. However, instead of relying solely on a verbal lecture, the demonstrator style combines lectures with other teaching forms, including multimedia presentations, demonstrations and class activities</p>	<p>They teach by ‘showing’ and encouraging students to work through similar problems or activities.</p> <p>Demonstration or role modeling of ultrasound skills is necessary as an exemplar for performance of ultrasounds. The practical sessions should include a brief demonstration but should not become just a demonstration. Learners need to get their hands on quickly</p>
<b>Delegator</b>	<p>Teachers give a lot of responsibility for learning to their students. They will allow students to create and manage their own learning projects and consult with them as needed. The students are responsible for staying focused and motivated.</p>	<p>Too much delegation and not enough guidance runs the risk of inefficient learning</p>
<b>Facilitator</b>	<p>Teachers who adopt a facilitator or activity-based style encourage self-learning in the classroom through increased peer to teacher learning. Teachers ask students to question rather than simply have the answer given to them.</p> <p>activities are used to promote self-discovery and develop problem-solving skills, which can often lead to the student developing a much deeper understanding of the topic.</p>	<p>The ultrasound educator needs to facilitate the practical sessions so that all learners get an opportunity to scan and experience success</p>
<b>Hybrid</b>	<p>An integrated teaching style that uses elements of all the above teaching styles to achieve learning outcomes.</p> <p>Teachers incorporate their personality, preferences, and interests into their teaching.</p> <p>Tailor their tutoring for different pupils, incorporating extra-curricular knowledge to develop a deeper knowledge of a particular topic.</p>	<p>Ultrasound teaching is a mix of all the above styles. At different times we will engage different styles to achieve the learning outcomes</p>