

# Structure and sequence teaching

## Overview

- **DiSSS** method of breaking down and sequencing teaching

## Four stages of competence

You can't see the world as your learner sees it – even if you were in their shoes not that long ago. This is because your subsequent experiences, training and reflection have caused your knowledge to be automated and condensed and you now employ mental short cuts.

As a teacher – you have to unpack those short cuts and break it down into smaller bite size pieces of knowledge so that learners can travel with your thinking.

1. **Unconscious incompetence** – learner is unaware of how little they know or can do and they don't recognize their deficit, they don't know what they don't know
2. **Conscious incompetence** – the learner recognizes that they can't do something
3. **Conscious competence** – the learner is aware that they know how to do something and that they are competent at performing it
4. **Unconscious competence** – the learner has so much practice at the skill and they know they know how to do it but are not consciously aware of how they are doing it as it has become second nature

In order to teach well, we need to become consciously aware of what we are doing in order to break the skill down for teaching.

## DiSSS method for rapid skill acquisition (Tim Ferris)

**D**econstruct

*i* (a random vowel to make an easy English word)

**S**elect

**S**equence

**S**takes

## Deconstruct

- Task analysis is the process of breaking a skill down into smaller, more manageable components
- What are the minimal learning units?
- Reduce what you are going to teach to the absolute essentials
- Interview or Ask the expert "what are the most common mistakes that beginners make?"
- Reverse - Look at the final product and backtrack to find a way to begin
- Translate - Use shortcuts to help translate a skill. What do they already know or how is this linked to what you already know? What are the shortcuts?

### Select

- Use Pareto's principle to help you select what to teach first
- Pareto's principle states that 80% of consequences come from 20% of the causes
- Which 20% of the deconstructed skill should you focus on to get 80% of the outcome you want?
- Focus on one thing at a time to avoid cognitive overload.

### Sequence

- This is all about putting the learning in the right order
- What is the base task that you need to conquer before you can move on?
- What is the MOST IMPORTANT thing they need to know
- Prioritise the learning -1<sup>st</sup> must have 2<sup>nd</sup> should have and 3<sup>rd</sup> could have
- Sometimes the logical first step may not be the conventional or traditional one
  - E.g. Physics first? When teaching ultrasound physics before scanning, the learner is dealing with abstract concepts and does not understand how these will help in clinical practice. Sometimes physics is better taught down the track
- Simple things first that learners will have the opportunity to practice lots so that the material has a better chance of getting to long term memory

### Stakes

- How do you set up stakes to create real consequences to guarantee learners will follow the program?
- Example 1 – if learners know there will be an exam, they will tune in to the teaching more.
- Example 2 - at the beginning of a presentation, divide the class into teams so that they can debate the pros and cons of a technique at the end of the session.