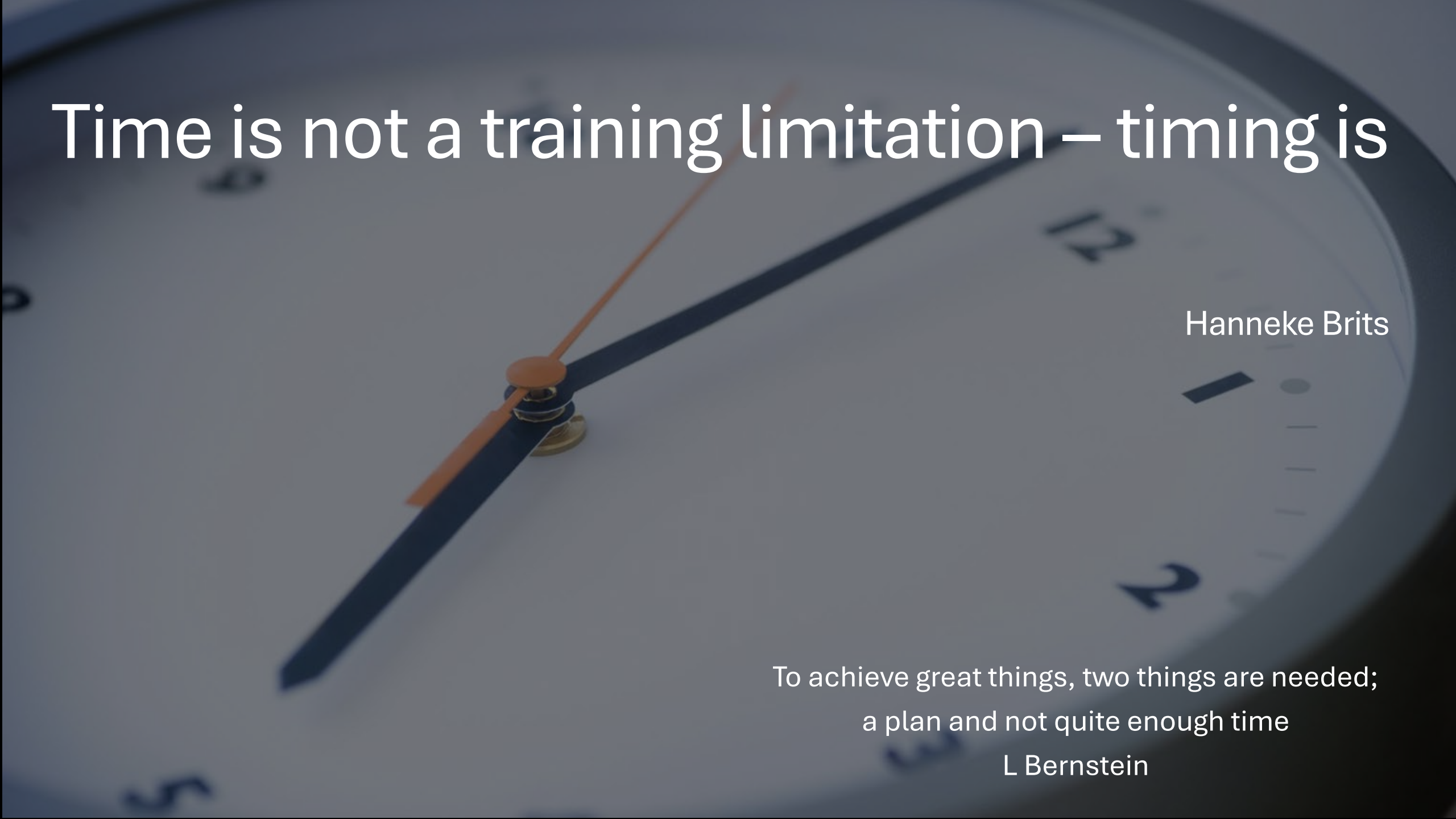




Time is not a training limitation – timing is

Hanneke Brits

To achieve great things, two things are needed;
a plan and not quite enough time

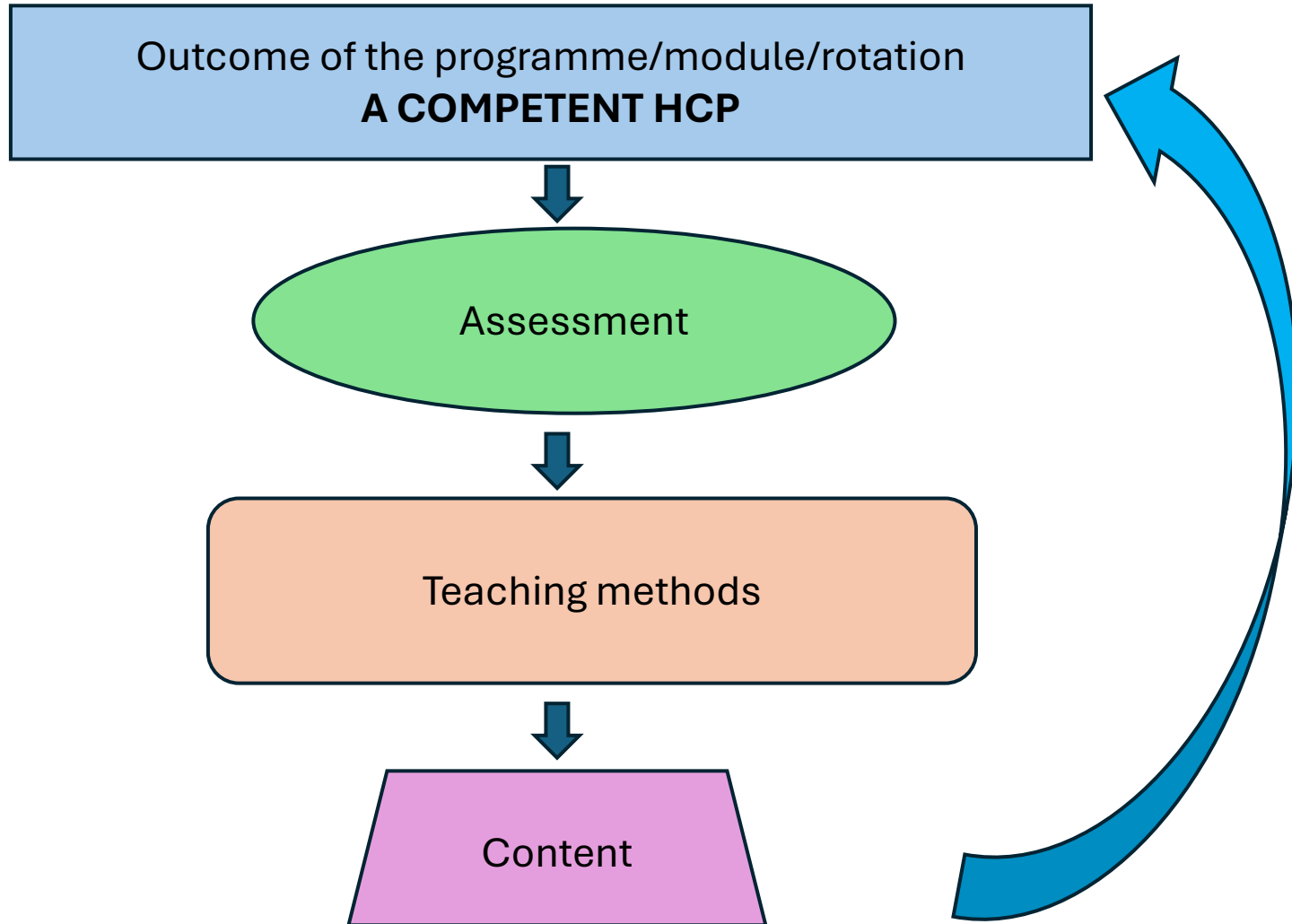
L Bernstein

Content

- What to train?
- Where to train?
- When to train?
 - Timing
- How to train?

Time and timing are a pivot that determines the real value of what we do or what we choose not to do

Constructive Alignment

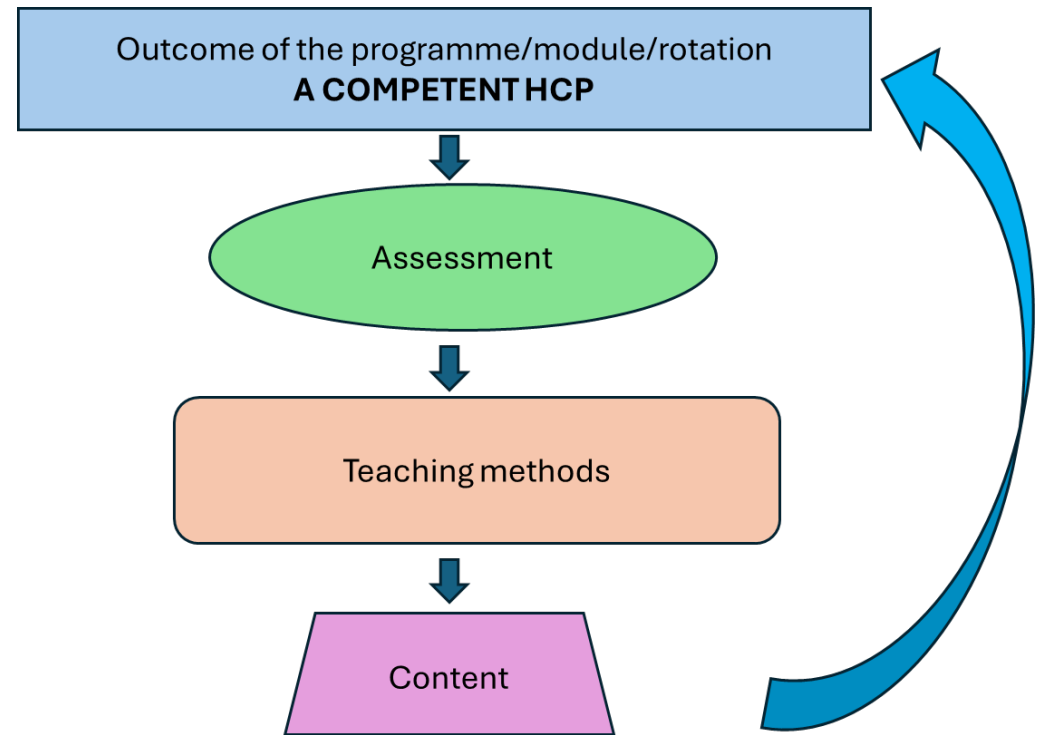


What to train?

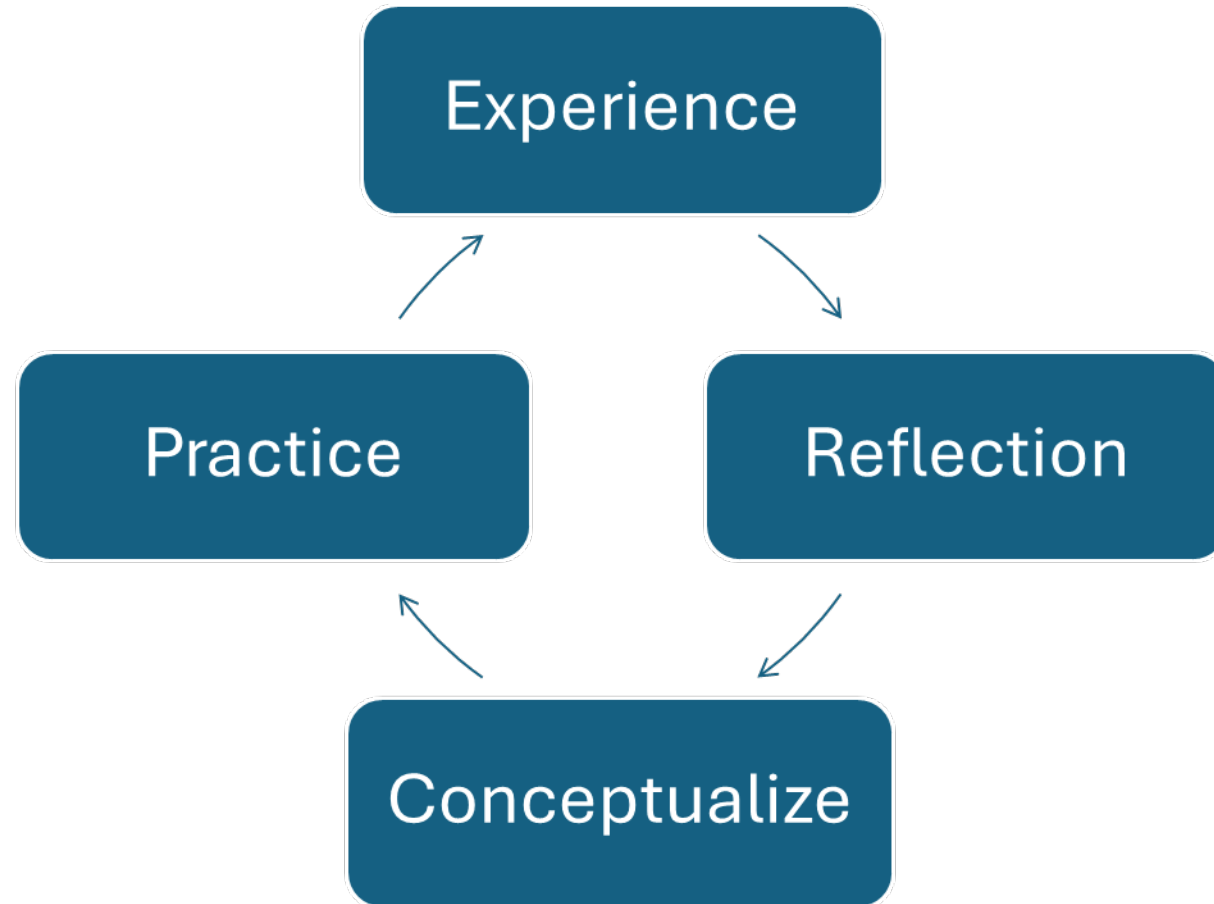
Outcome

Context specific

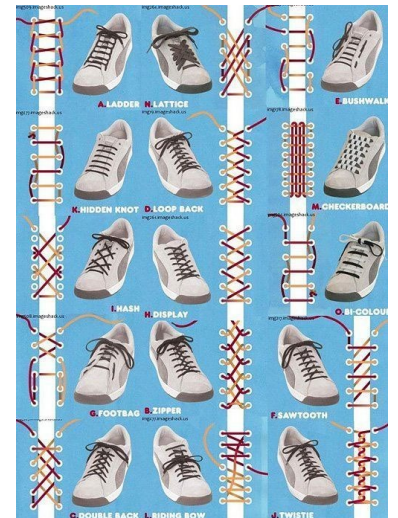
- Intern
- Registrar
- Medical Officer
- Casualty doctor
- Rural doctor
- Special skills



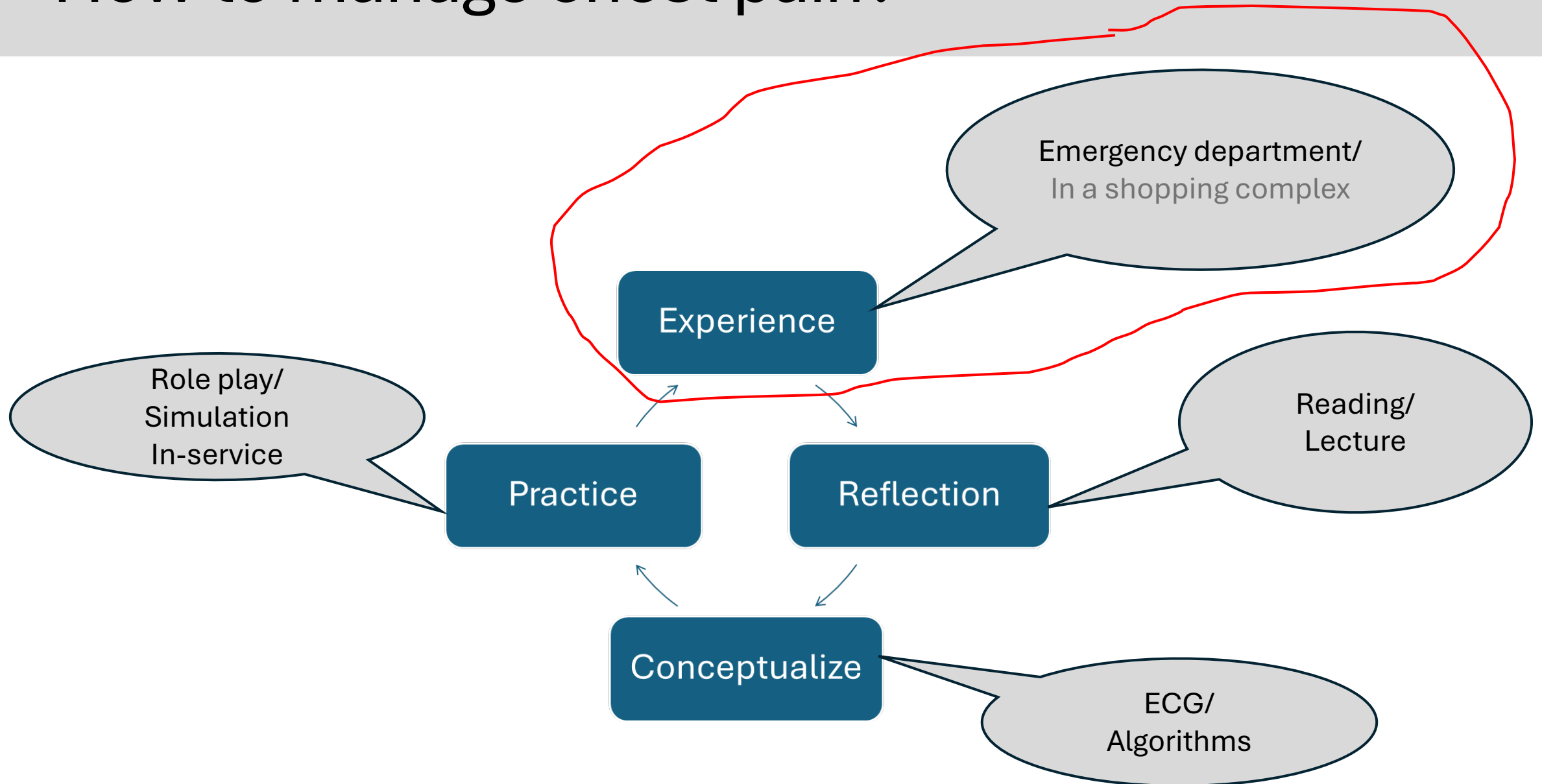
Let's tie shoelaces



Kolb - 1938



How to manage chest pain?



Learning is the learner's responsibility!!!

- You provide a conducive environment
- You facilitate the process

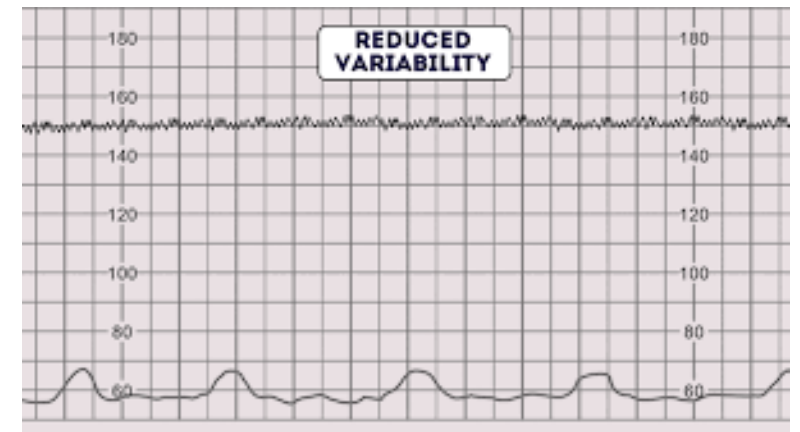
Therefore, we are learning facilitators



Case

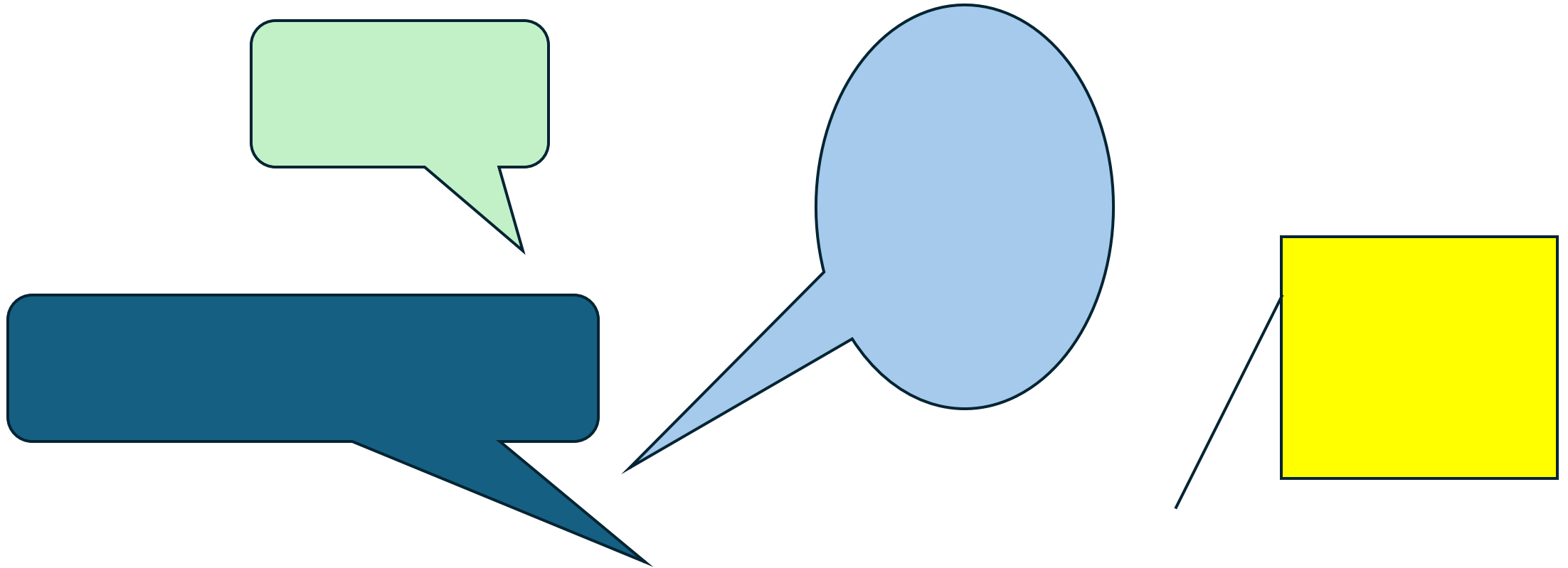


- 41-year-old, Primigravida
- MC – Decreased foetal movement
- Unbooked, unsure dates
- BP = 159/95 mmHg
- FH = 150/min
- BMI = 36



Before you just go for it, REMEMBER Timing

- Theory overload is the biggest obstacle to learning!



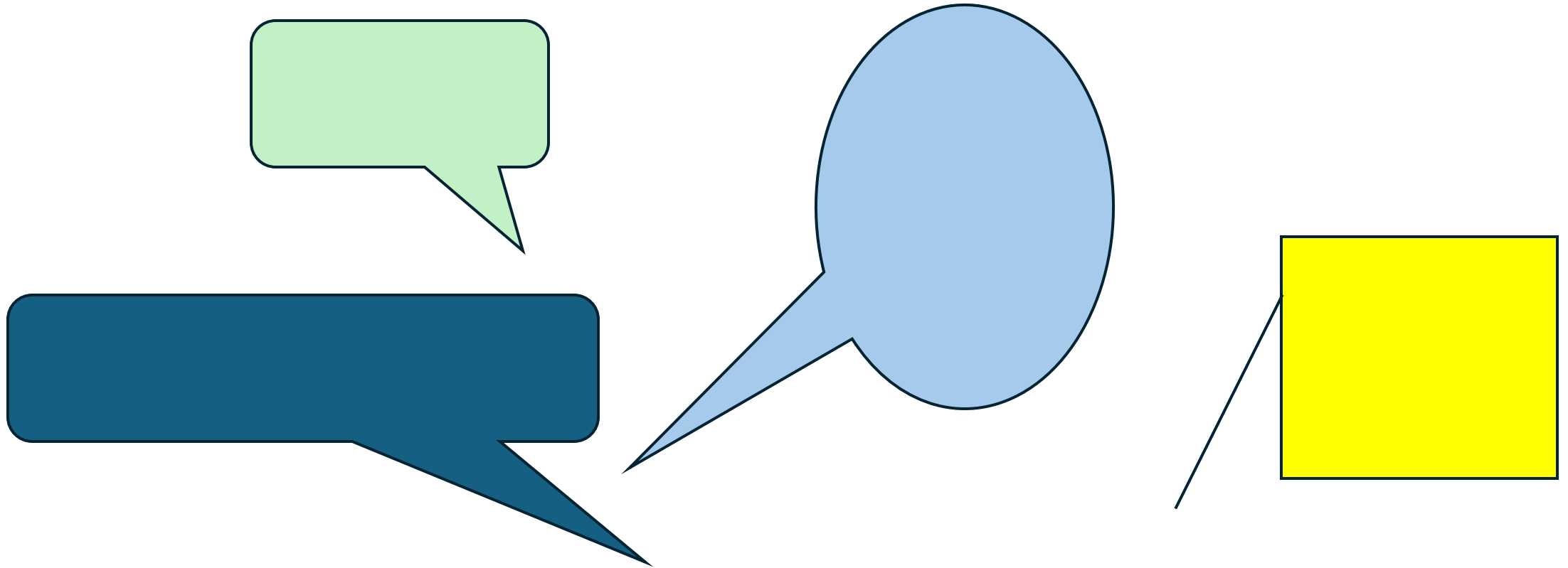
Where - Workplace

- Real-life situation
- Disease profile
- Local equipment and guidelines
- Support
- Low stakes
- Habits! – I started in 2000



Before you just go for it, REMEMBER Timing

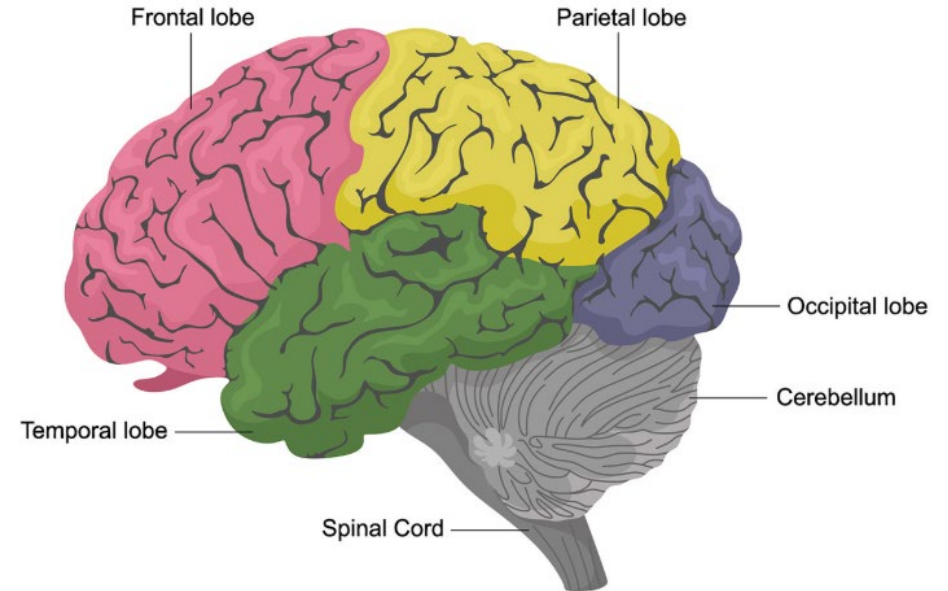
- Theory overload is the biggest obstacle to learning!



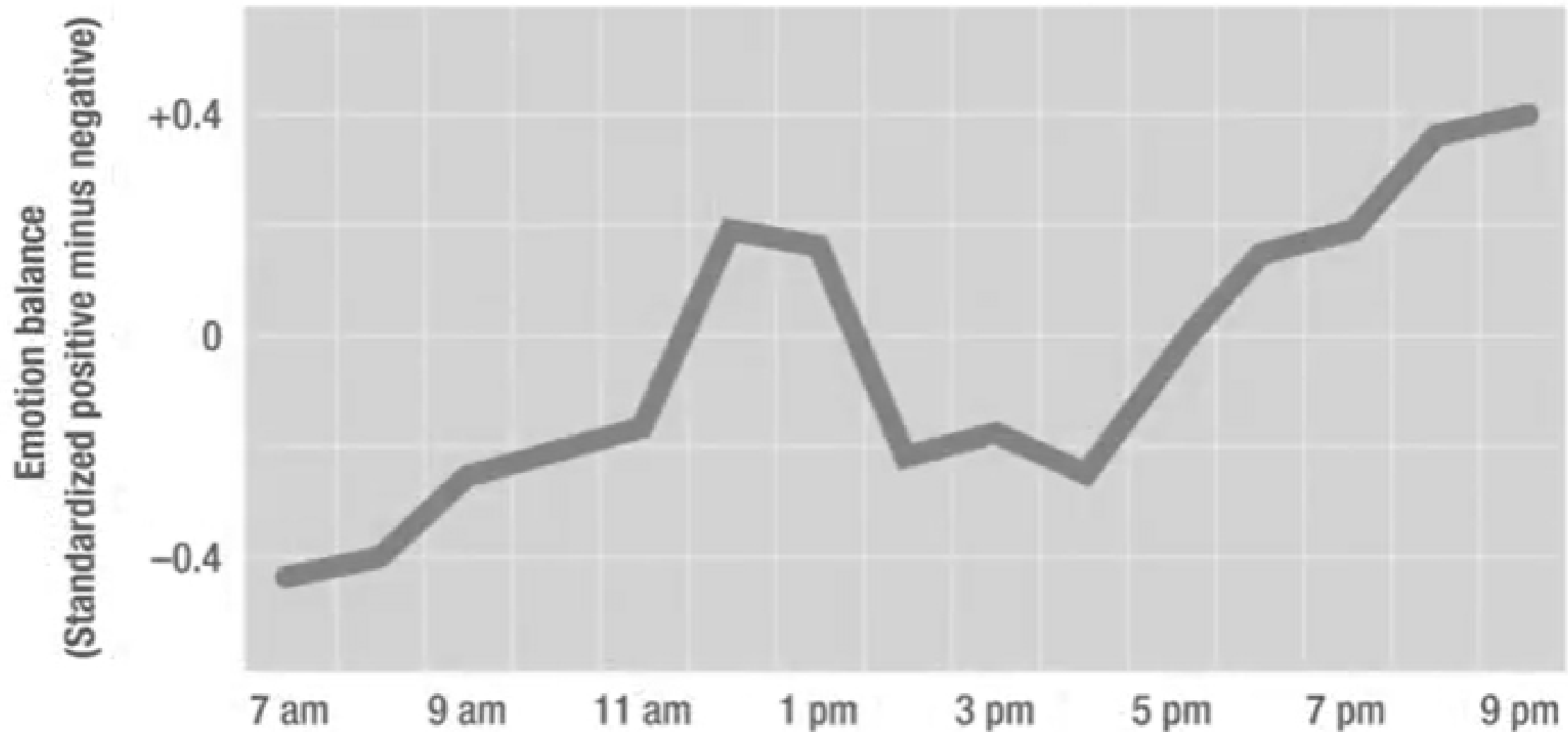
The effect of mood and emotional balance on learning

- Self-regulation
- Attention and concentration
- Retention

- Cognitive overload
- Tunnel vision



**Emotional balance rises in the morning,
dips in the afternoon, and rises again in the evening.**



What influences your mood and emotional balance?

- Time of day
- Sleep deprivation – Post call
- Anxiety
- Diet
 - Caffeine and energy drinks
- Exercise
- Stress – Ward round, Traffic
- Theory overload



Timing

Hungry

Angry

Late

Tired



Tools for time limitations

BLOG

"We're Not Too Busy": Teaching With Time Constraints on Rounds

Flint Y. Wang, MD, assistant professor, and Jennifer R. Kogan, MD, professor and director of undergraduate medical education, Department of Medicine, Perelman School of Medicine at the University of Pennsylvania

Rounds are busy. When patient care becomes overwhelming, teaching often gets cut short. If clinical instructors do not teach with a deliberate focus on the time available, workflow is interrupted and learners lose attention.^{1,2} As a result, articles have focused on redesigning rounds to incorporate more teaching.^{3,4} However, knowing how to best use free moments on rounds through explanations and demonstrations allows teachers to maximize teaching opportunities while minimizing the effect on rounding time.

Here, we propose two strategies for teaching in 30-second (*focused*), 2-minute (*expanded*), and 5-minute (*conceptual*) segments. Strategy 1 is based on selecting question words followed by an **explanation**, while Strategy 2 uses **demonstrations**, role modeling, and patient interactions. Given the time available, pick the strategy that works best for the lesson you want to convey.

Strategy 1: Teach through explanation by selecting introductory question words	Time available	Strategy 2: Teach through demonstration by role modeling
30 seconds (focused): Ask what/which		30 seconds (focused): Demonstrate physical exam features
- What are Charcot's triad and Reynold's pentad? - What are the layers of the abdominal wall? - Which aspirin dose is given in myocardial infarction? - Which antibiotic is inactivated by lung surfactant?		- Orientation - Pupillary reactivity - Skin blanching - Friction rub - Lung percussion - Asterix - Peripheral edema - Babinski reflex
2 minutes (expanded): Ask why		2 minutes (expanded): Role model conversations
- Why does the heart look bigger in an anteroposterior film? - Why would you do a diagnostic paracentesis first? - Why is calcium low in tumor lysis syndrome? - Why would you give thiamine to an alcoholic?		- Explaining how a surgical procedure is done - Reviewing discharge medication changes - Preparing a patient for how a stress test is performed - Helping a pediatric patient feel calm during an exam
5 minutes (conceptual): Ask how		5 minutes (conceptual): Set up frameworks for discussions
- How do you work up a fever in a newborn? - How does liver disease cause thrombocytopenia? - How do you decide which hypertension medication to give? - How does malignancy cause hypercalcemia?		- Providing a framework for summarizing the plan of care - Using the SPIKES mnemonic⁵ for delivering bad news - Explaining the risks/benefits/alternatives for a procedure consent - Appropriately incorporating a live translator

Remember, for both strategies:

- ✓ Keep track of time while you teach: Teaching takes longer than it feels.
- ✓ Watch body language: Are the learners still paying attention?
- ✓ Be specific rather than all-inclusive: Others will teach, too.
- ✓ "Signpost" teaching: Make it obvious that you are teaching.

References:

1. Roschetsky LM, Coltri A, Flores A, et al. No time for teaching? Inpatient attending physicians' workload and teaching before and after the implementation of the 2003 duty hours regulations. *Acad Med*. 2013;38:1293-1298.
2. Castiglioni A, Shewchuk RM, Wiketill L, Reddy J, G. Connor RM. A pilot study using nominal group technique to assess residents' perceptions of successful attending rounds. *J Gen Intern Med*. 2008;23:1060-1065.
3. Reilly JB, Bennett N, Foinoch K, et al. Redesigning rounds: towards a more purposeful approach to inpatient teaching and learning. *Acad Med*. 2015;90:450-453.
4. Goralan JO, Chuang CH, Huang G, Smith C. The return of bedside rounds: An educational intervention. *J Gen Intern Med*. 2010;25:792-798.
5. Balch WE, Buckman R, Lenzi R, Greber G, Beale EA, Kudelski AP. SPIKES—A six-step protocol for delivering bad news: Application to the patient with cancer. *Oncology*. 2000;5:302-311.

Author contact: flint.wang@uphs.upenn.edu; Twitter: @PennMedicine
An AM Rounds blog post on this article is available at academicmedicineblog.org.

"We're Not Too Busy": Teaching With Time Constraints on Rounds

Flint Y Wang¹, Jennifer R Kogan

Affiliations + expand

PMID: 29923891 DOI: [10.1097/ACM.0000000000002336](https://doi.org/10.1097/ACM.0000000000002336)

30 seconds (focused):

Ask what/which

- *What* are Charcot's triad and Reynold's pentad?
- *What* are the layers of the abdominal wall?
- *Which* aspirin dose is given in myocardial infarction?
- *Which* antibiotic is inactivated by lung surfactant?



30 seconds (focused):

Demonstrate physical exam features

- Orientation
- Pupil reactivity
- Skin blanching
- Friction rub
- Lung percussion
- Asterixis
- Peripheral edema
- Babinski reflex

2 minutes (expanded):

Ask why

- *Why* does the heart look bigger in an anteroposterior film?
- *Why* would you do a diagnostic paracentesis first?
- *Why* is calcium low in tumor lysis syndrome?
- *Why* would you give thiamine to an alcoholic?



2 minutes (expanded):

Role model conversations

- Explaining how a surgical procedure is done
- Reviewing discharge medication changes
- Preparing a patient for how a stress test is performed
- Helping a pediatric patient feel calm during an exam

5 minutes (conceptual):

Ask how

- *How* do you work up a fever in a newborn?
- *How* does liver disease cause thrombocytopenia?
- *How* do you decide which hypertension medication to give?
- *How* does malignancy cause hypercalcemia?



5 minutes (conceptual):

Set up frameworks for discussions

- Providing a framework for summarizing the plan of care
- Using the SPIKES mnemonic⁵ for delivering bad news
- Explaining the risks/benefits/alternatives for a procedure consent
- Appropriately incorporating a live translator

30 - Seconds What? Causes? Demonstrate



CLUBBING

Mnemonic for Causes of Clubbed Fingers

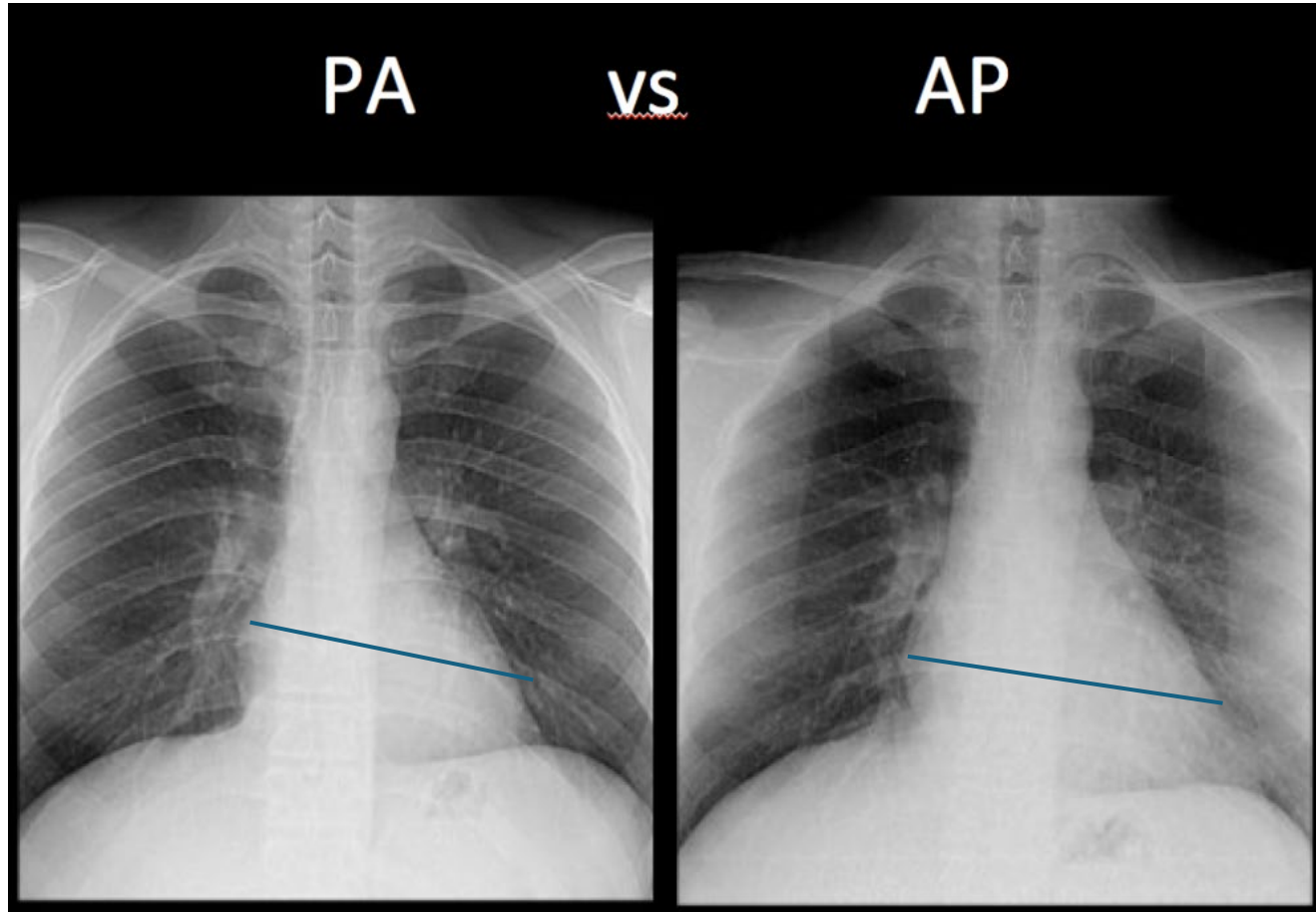


Normal Clubbed



- C** – Cyanotic Heart Disease / Cystic Fibrosis
- L** – Lung Cancer
- U** – Ulcerative Colitis
- B** – Bronchiectasis
- B** – Benign Mesothelioma
- I** – Infective Endocarditis
- N** – Neurogenic Tumors
- G** – Gastrointestinal Diseases

2 minutes Why?



2 – minutes - Observe getting consent



5 – Minutes



- SPIKES

A 3-year-old presents with a history of fever



30 seconds

What do you consider a fever?

2 – minutes

Demonstrate how you measure temperature

5 – minutes

Describe your approach to a child with fever

SNAPPS

- Learner-centred teaching approach
- Good for handover or ward rounds
- The doctor presents a patient



SNAPPS is a learner-centered teaching approach to clinical education consisting of six steps. In learner-centered education, the learner takes an active role in their educational encounter by discussing the patient encounter beyond the facts, verbalizing their clinical reasoning, asking questions, and engaging in follow-up learning pertinent to the educational encounter. The preceptor takes on the role of a facilitator by promoting critical thinking, empowering the learner to have an active role in their education, and serving as a knowledge "presenter" rather than a knowledge "source."

S Summarize briefly the history and findings	Obtains a history, performs a physical examination, and presents a summary of their findings to the preceptor. The summary should be brief and concise and should not utilize more than 50% of the learning encounter (~3 minutes maximum to present)	"Eric is a 7-year-old male with a 3-month history of right knee pain and swelling that occurs daily. No other joints are affected. He reports difficulty playing soccer. He denies current or previous illnesses, recent trauma, or injury. Daily ibuprofen provides little benefit."
N Narrow the differential to two or three relevant possibilities	- Provides two to three possibilities of what the diagnosis could be - Presents their list prior to the preceptor revealing the list	"Given the length of the symptoms, my differential diagnosis includes juvenile idiopathic arthritis, reactive arthritis, and injury."
A Analyze the differential comparing and contrasting the possibilities	- Discusses the possibilities and analyzes why the patient presentation supports or rules the differential diagnoses - Thinks out loud in front of the preceptor	"I think juvenile idiopathic arthritis is highest on my differential diagnosis given the age of the patient and the length of the symptoms. Reactive arthritis is lower due to the length of symptoms and no history of previous illness. Injury is low on the differential due to no history of injury."
P Probe the preceptor by asking questions about uncertainties, difficulties, or alternative approaches	- Discusses areas of confusion and asks questions of the preceptor - Allows the preceptor to learn about their thinking and knowledge base - Prompts discussion from the preceptor on clinical pearls or areas of importance	"Is there anything else that you would include on your differential?" The preceptor may discuss the importance of considering septic arthritis in the differential diagnosis.
P Plan management for the patient's medical issues	- Discusses a management plan for the patient or outlines next steps - Commits to their plan and utilizes the preceptor as a source of knowledge	"I would begin a prescription-strength anti-inflammatory medication and order an ANA."
S Select a case-related issue for self-directed learning	- Identifies a learning issue related to the patient encounter - Discusses the findings from the learning issue with the preceptor	"I would like to understand the relationship of the ANA and the need for ophthalmology monitoring in juvenile idiopathic arthritis."

S Summarize briefly the history and findings	• Obtains a history, performs a physical examination, and presents a summary of their findings to the preceptor. The summary should be brief and concise and should not utilize more than 50% of the learning encounter (~3 minutes maximum to present)
N Narrow the differential to two or three relevant possibilities	• Provides two to three possibilities of what the diagnosis could be • Presents their list prior to the preceptor revising the list
A Analyze the differential comparing and contrasting the possibilities	• Discusses the possibilities and analyzes why the patient presentation supports or refutes the differential diagnoses • Thinks out loud in front of the preceptor
P Probe the preceptor by asking questions about uncertainties, difficulties, or alternative approaches	• Discusses areas of confusion and asks questions of the preceptor • Allows the preceptor to learn about their thinking and knowledge base • Prompts discussion from the preceptor on clinical pearls or areas of importance
P Plan management for the patient's medical issues	• Discusses a management plan for the patient or outlines next steps • Commits to their plan and utilizes the preceptor as a source of knowledge
S Select a case-related issue for self-directed learning	• Identifies a learning issue related to the patient encounter • Discusses the findings from the learning issue with the preceptor

Summarise

- 41-year-old, primigravida, unbooked and unsure dates, complaining of decreased foetal movement.
- BP=159/94, SF = 42 cm, HAB = 4/5. FH = 150/min, BMI = 36, CTG = poor BTBV

Narrow

?Foetal distress

?PIH, advanced maternal age, unbooked

Analyze

Foetal well-being – CTG, decreased movement

Mother - Raised BP – ?PIH, age, unbooked

Probe

Gestational age for ?induction

Plan

IV Fluid, sonar, repeat CTG, maternal high-risk bloods, repeat vitals

Self-directed

Maternal age, Unbooked, indications for induction

6 STEPS

- **S**ummarise – History and findings
- **N**arrow – differential diagnosis
- **A**nalyse and commit to a diagnosis
- **P**robe the preceptor – asked about uncertainty
- **P**lan the management
- **S**elect self-directed learning

Break – 5 minutes

How to facilitate training

- Role modelling
- Different methods for different skills
- Constructive feedback

Role modelling braai broodjies

What happened here?

- You watched me making a braai broodjie?
- Did you expect it?
- Could you learn anything from it?

Role modelling (not acting!)

- Accidental or unplanned
 - Conscious and unconscious observing in practice
 - Positive or negative
 - Outcome is unknown
-
- Practice to be a role model
 - Practice to observe

Competency vs skill

- Management of labour vs vaginally delivering a baby
- Indications, contraindications, complications
- Skill
- Post-care

Group discussion

A mother brought a 6-month-old, severely malnourished and dehydrated, to your hospital. A junior doctor saw the baby and called for help.

Despite their best efforts, the baby died 2 hours later.

Discuss in your group how to turn this into a learning experience
or

Should you rather wait for a better time?

10 minutes

10-minute feedback

General discussion

- British@ufs.ac.za

Skills training

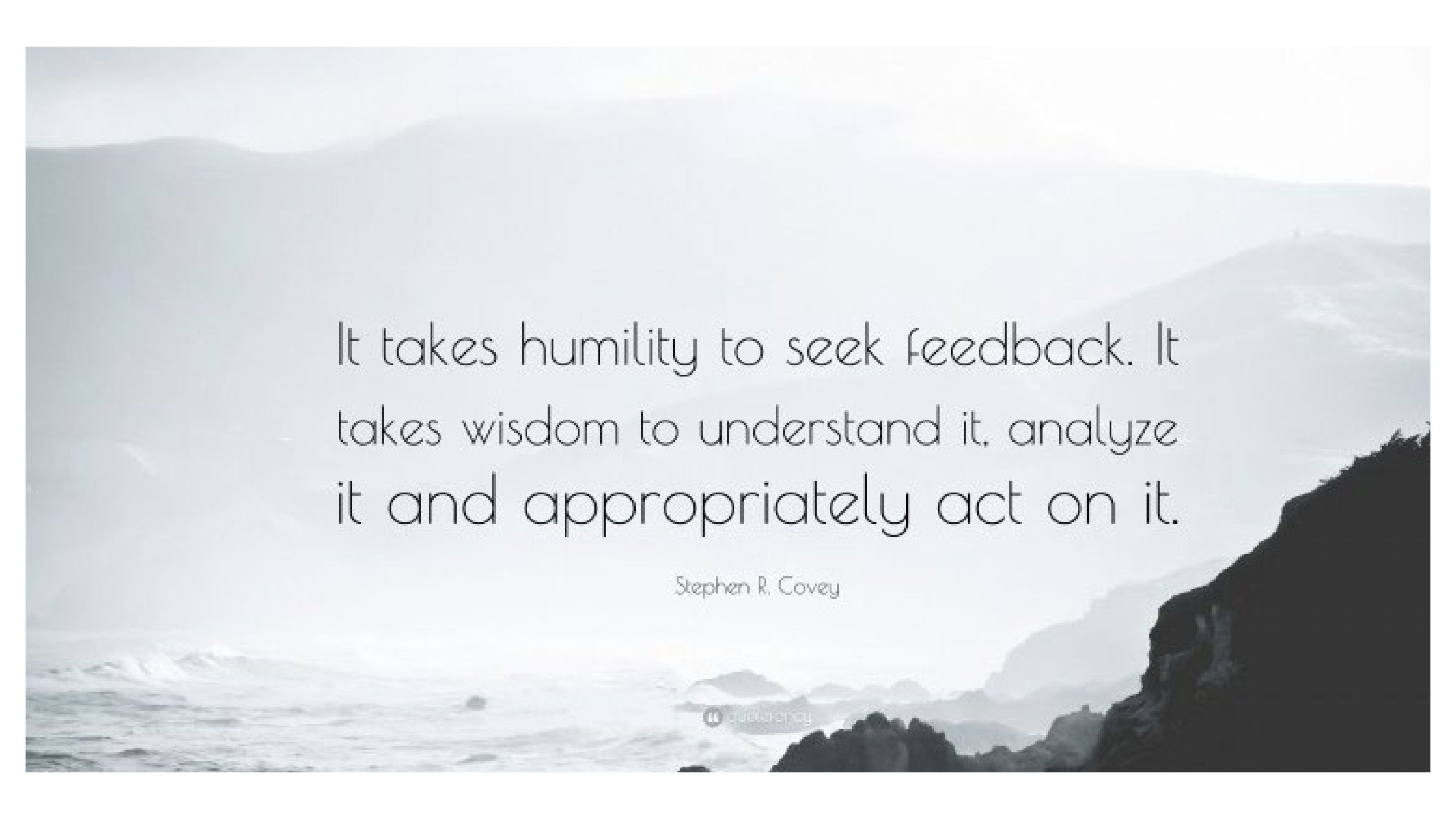
- Prepared skills training
 - Importance
 - Demonstrate
 - Demonstrate while explaining
 - Student explains
 - Student performs

Feedback

- Check preparedness – timing



- What did you do well?
- What can you do even better?
- Action plan
- Another training



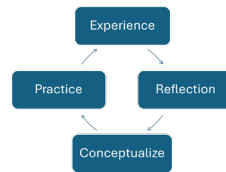
It takes humility to seek feedback. It
takes wisdom to understand it, analyze
it and appropriately act on it.

Stephen R. Covey

Take home messages

- Learning is the learner's responsibility

- Learning is a cycle



- Timing of learning



- Use every second/minute
- Beware of theory overload
- Role modelling