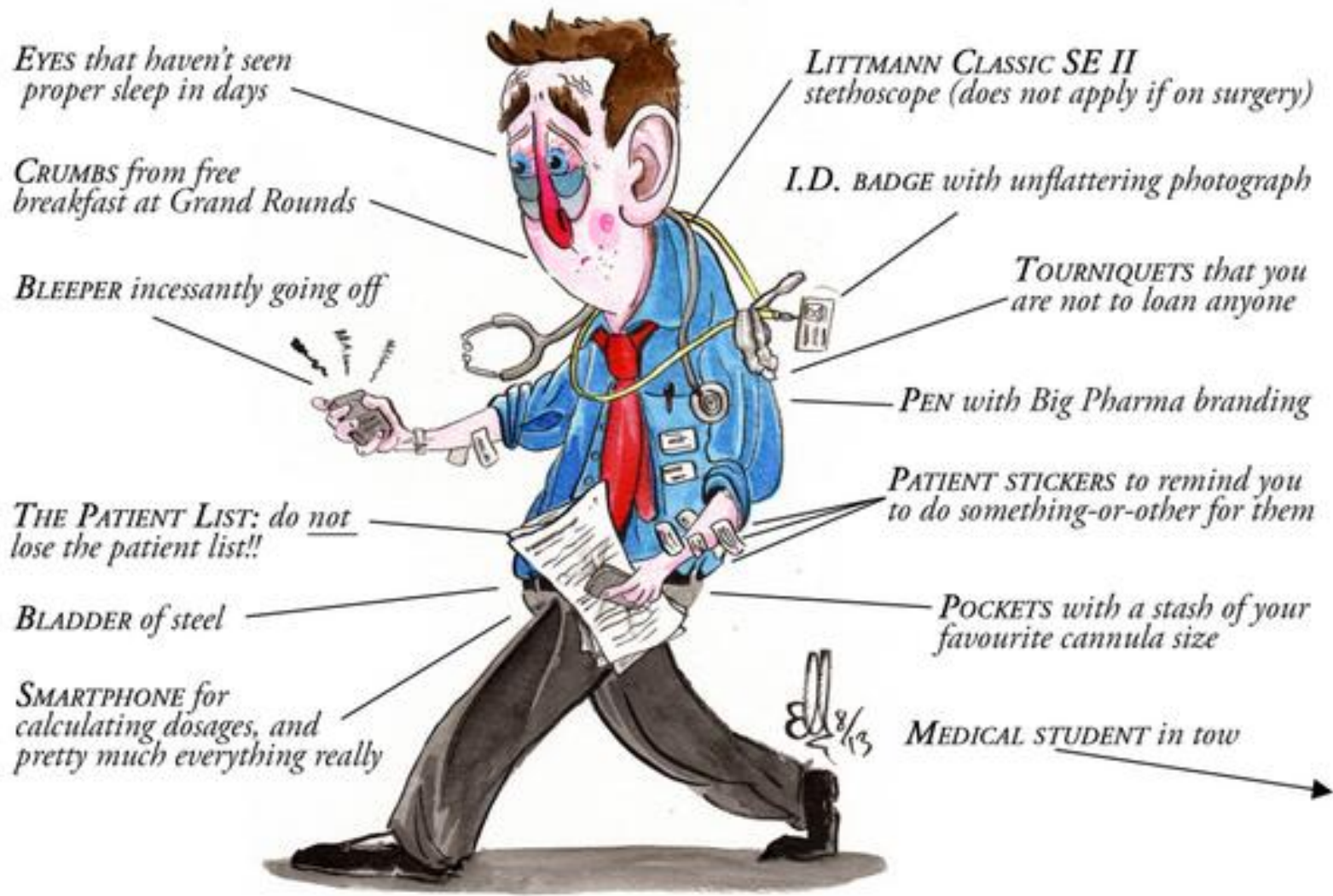


RESIDENT AS TEACHER: 有效的臨床教學

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國立台灣大學醫學教育暨生醫倫理所碩士



Anatomy of a JUNIOR DOCTOR



Resident as teacher

https://resident360.nejm.org/content_items/1969



引言

你曾經如何被教過？你都如何學習？

你想要成為怎麼的臨床教師？

大綱

■ 成為有效的學習者

- 成人學習理論
- 終生學習

■ 成為臨床教師

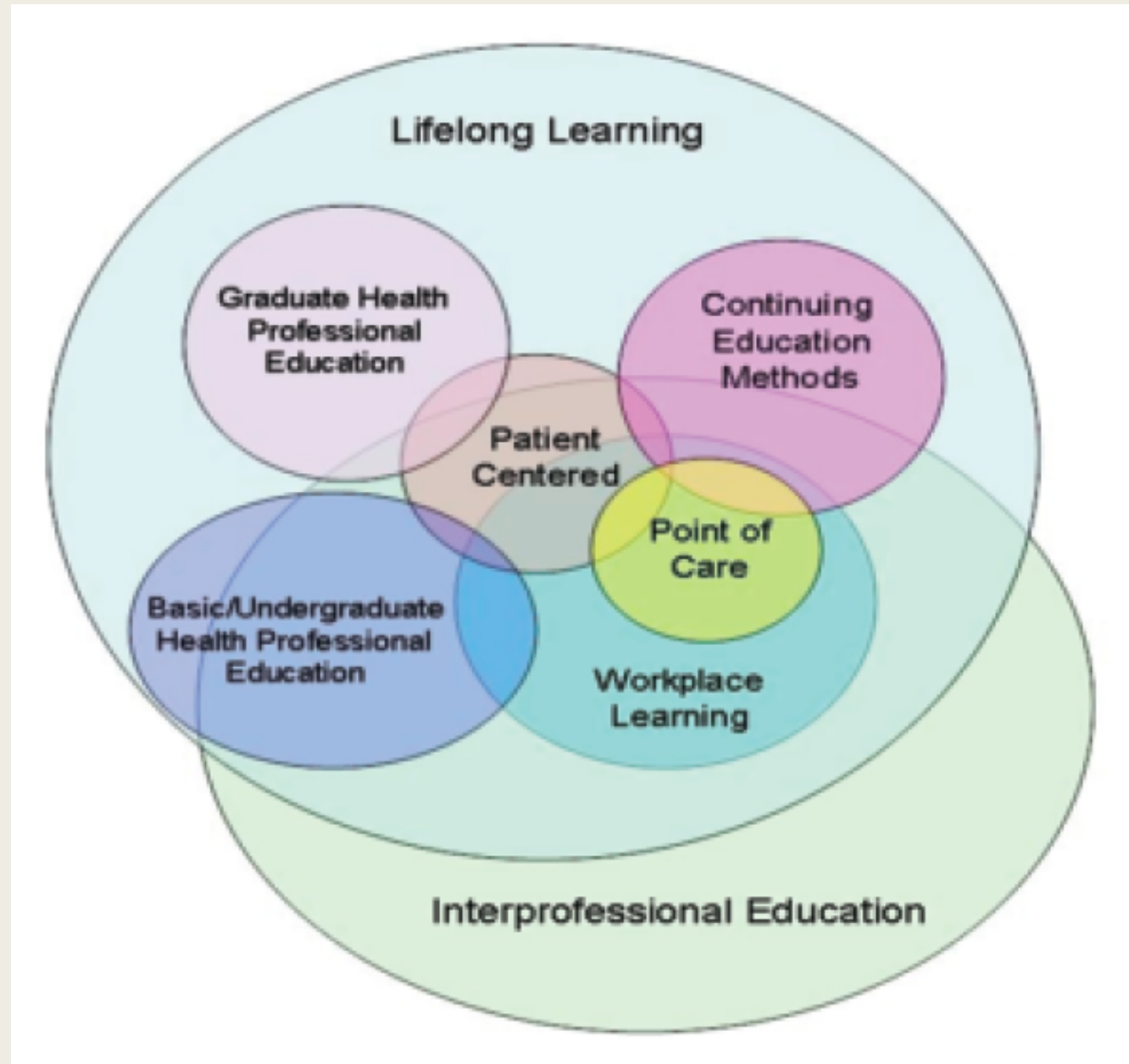
- 有效的教學：課程設計
- 臨床教學步驟
- 評估及回饋

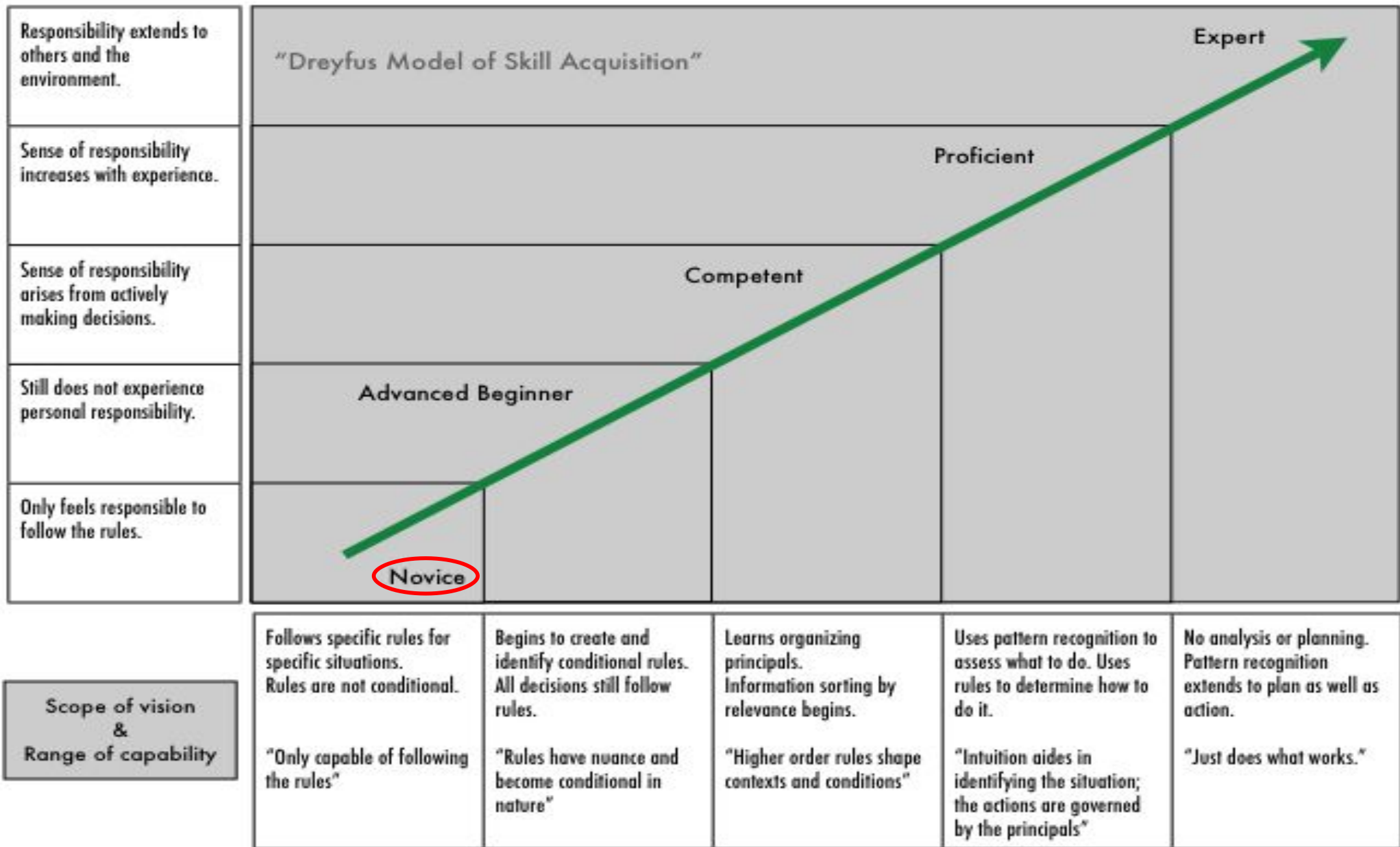
成人學習

- Knowles 成人學習五大前提基礎 (Knowles) :
 - 成人是獨立且自我引導的
 - 成人所累積的經驗，是豐富的學習資源
 - 成人重視可以和日常生活之需求整合的學習
 - 著重知識學習的即時應用，學習上較傾向問題中心，而非學科中心
 - 成人學習受到內在因素驅使甚於外在因素。

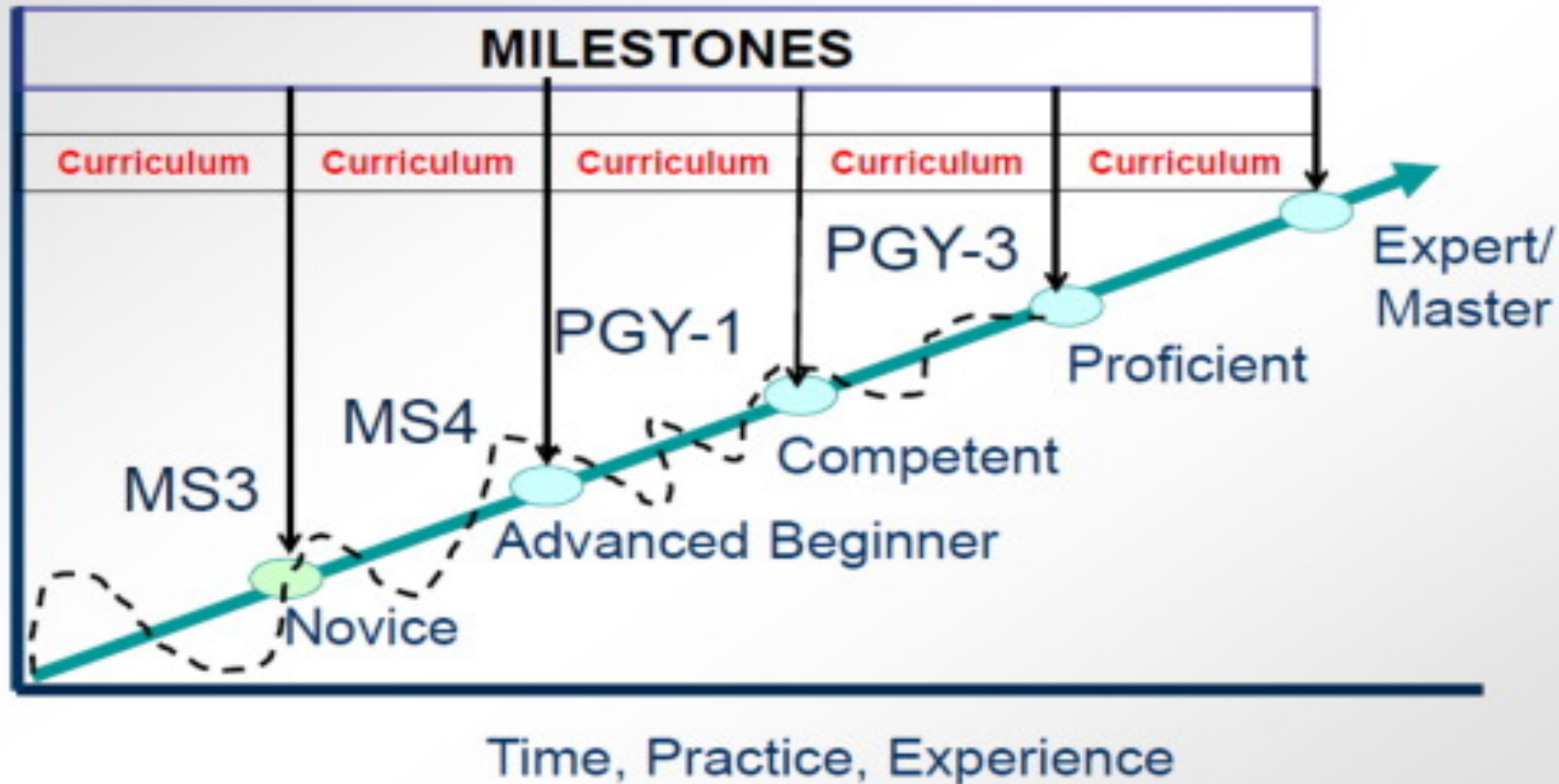
終生學習

- 臨床照護需求
- 升遷需求（主治，教職）
- 符合外在要求（專科考試、學會學分）

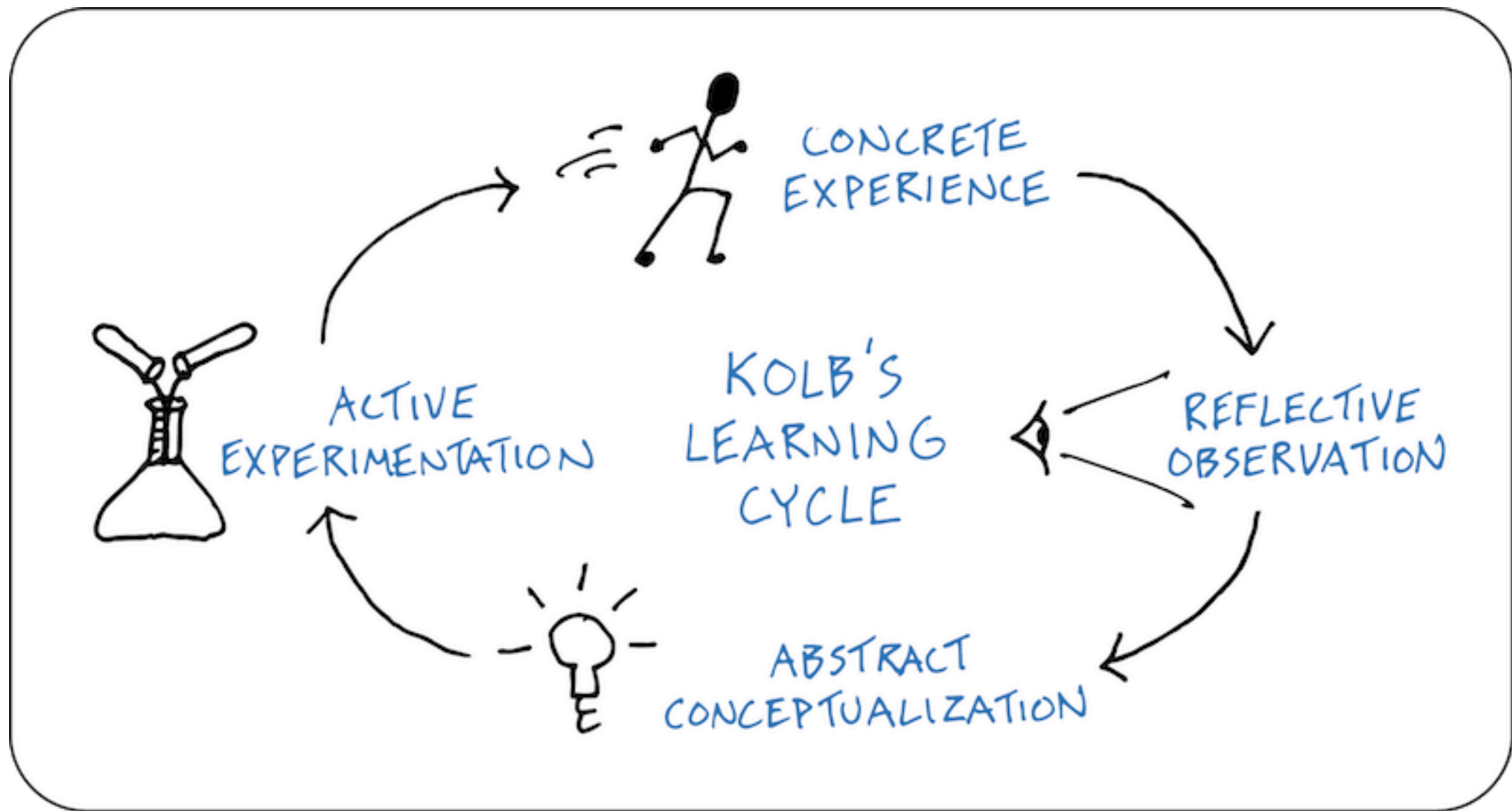




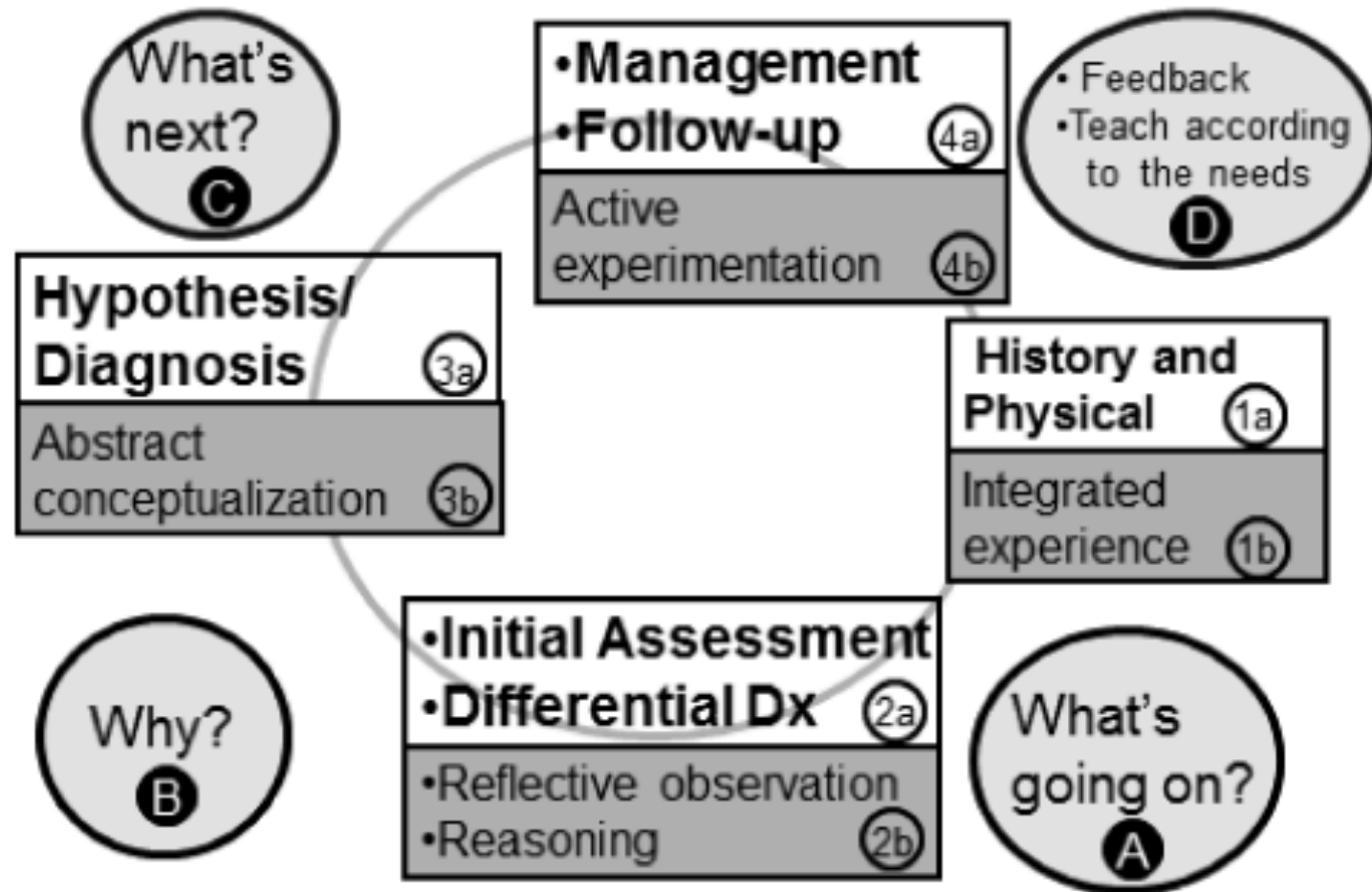
Competency Development Model



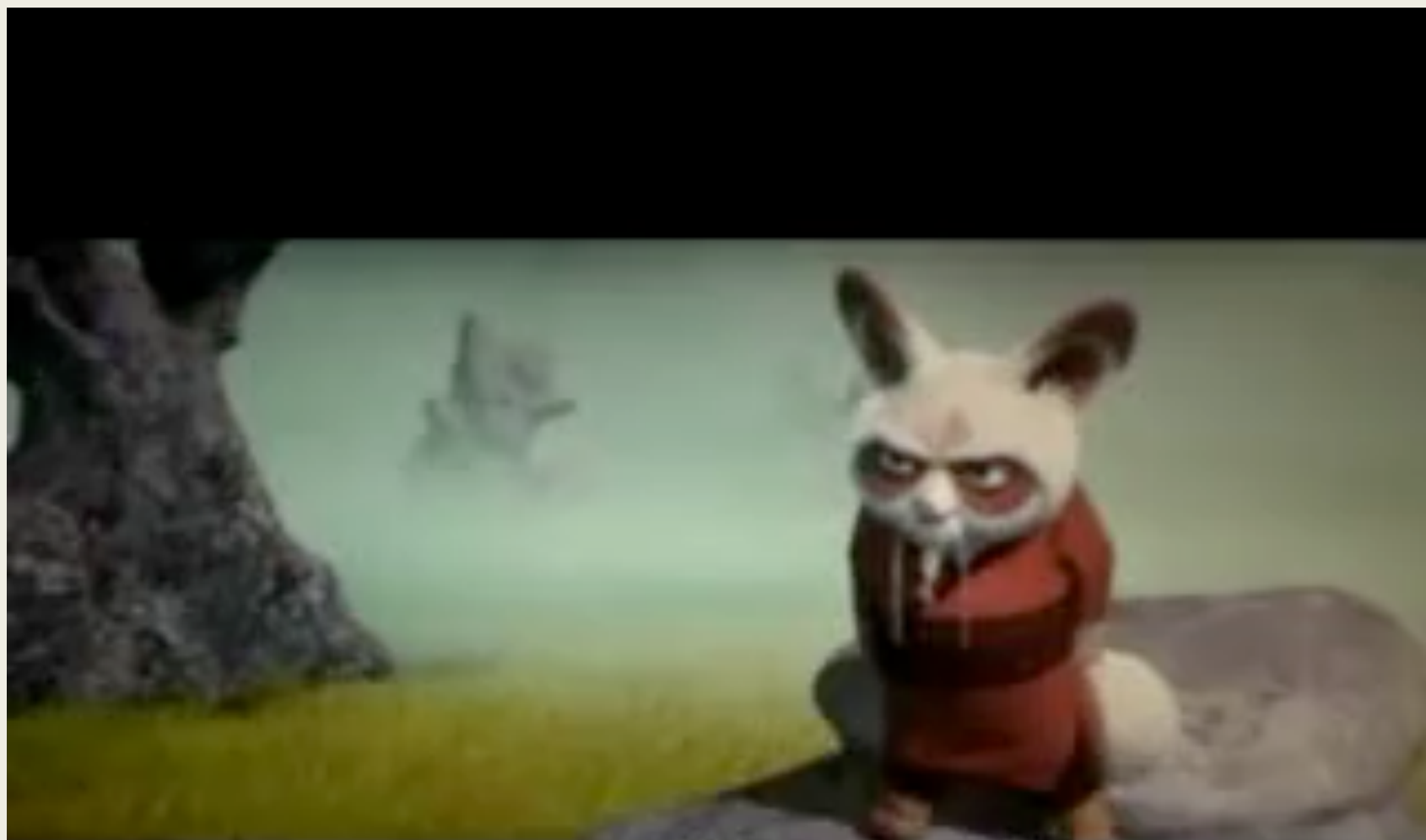
Dreyfus SE and Dreyfus HL. 1980
Carraccio CL et al. Acad Med 2008;83:761-7



Patient Care Activities → Learning Activities



RELATIONSHIP OF PATIENT CARE ACTIVITIES TO STAGES OF THE EXPERIENTIAL LEARNING CYCLE



我不能像訓練五俠客一樣訓練你

總結

- 有效的臨床學習需要：
 - 教學內容須與**臨床經驗**有關聯
 - 需要有**互動** (Engagement)
 - 如問與答，小組討論，同儕或不同層級教學相長
 - 安全的學習環境
 - Protected time，不受批判等

The image features two large, thick black L-shaped brackets. One is positioned in the top-left corner, and the other is in the bottom-right corner, framing the central text. The text is centered between these brackets.

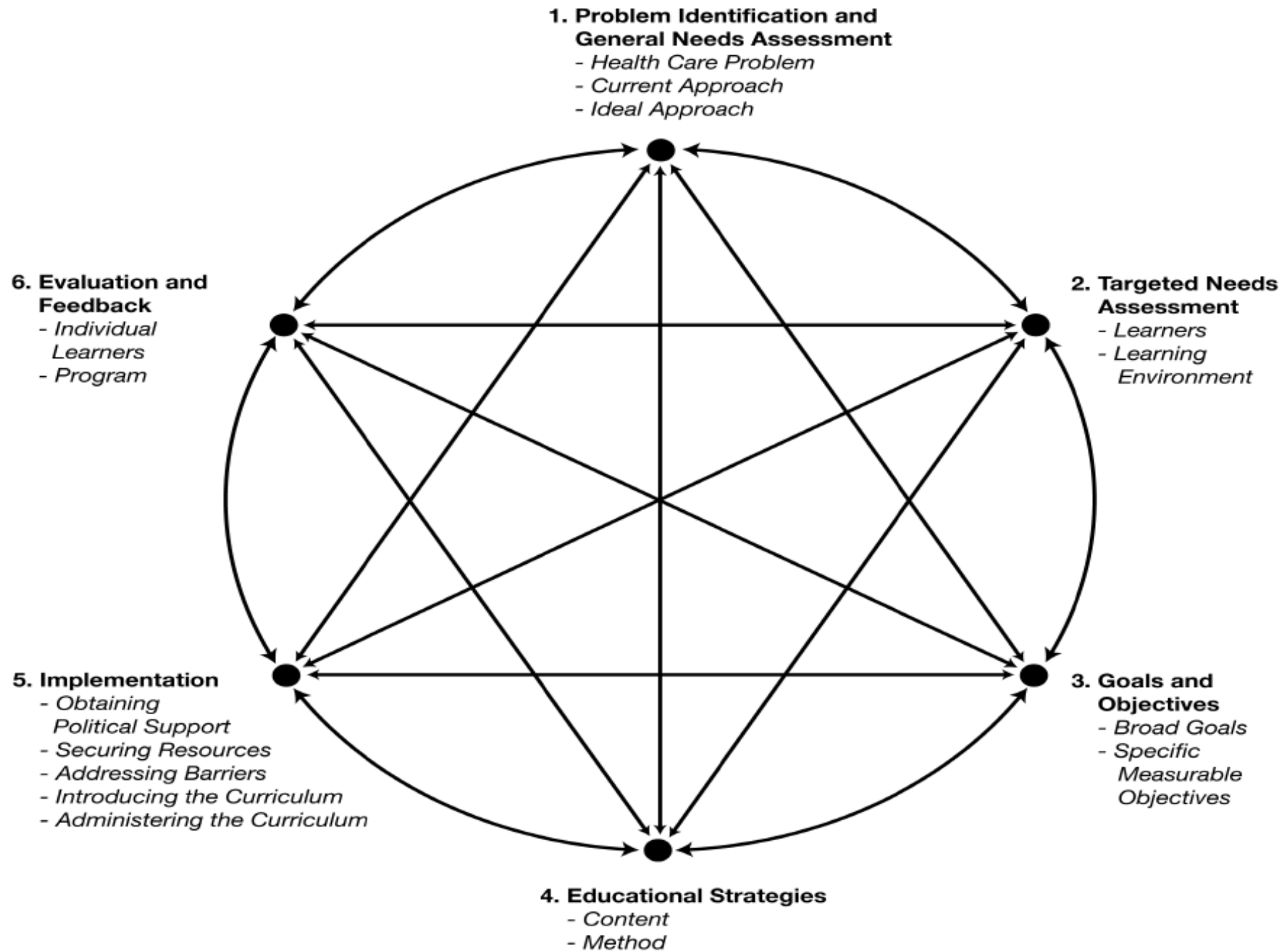
有效的臨床教學

大綱

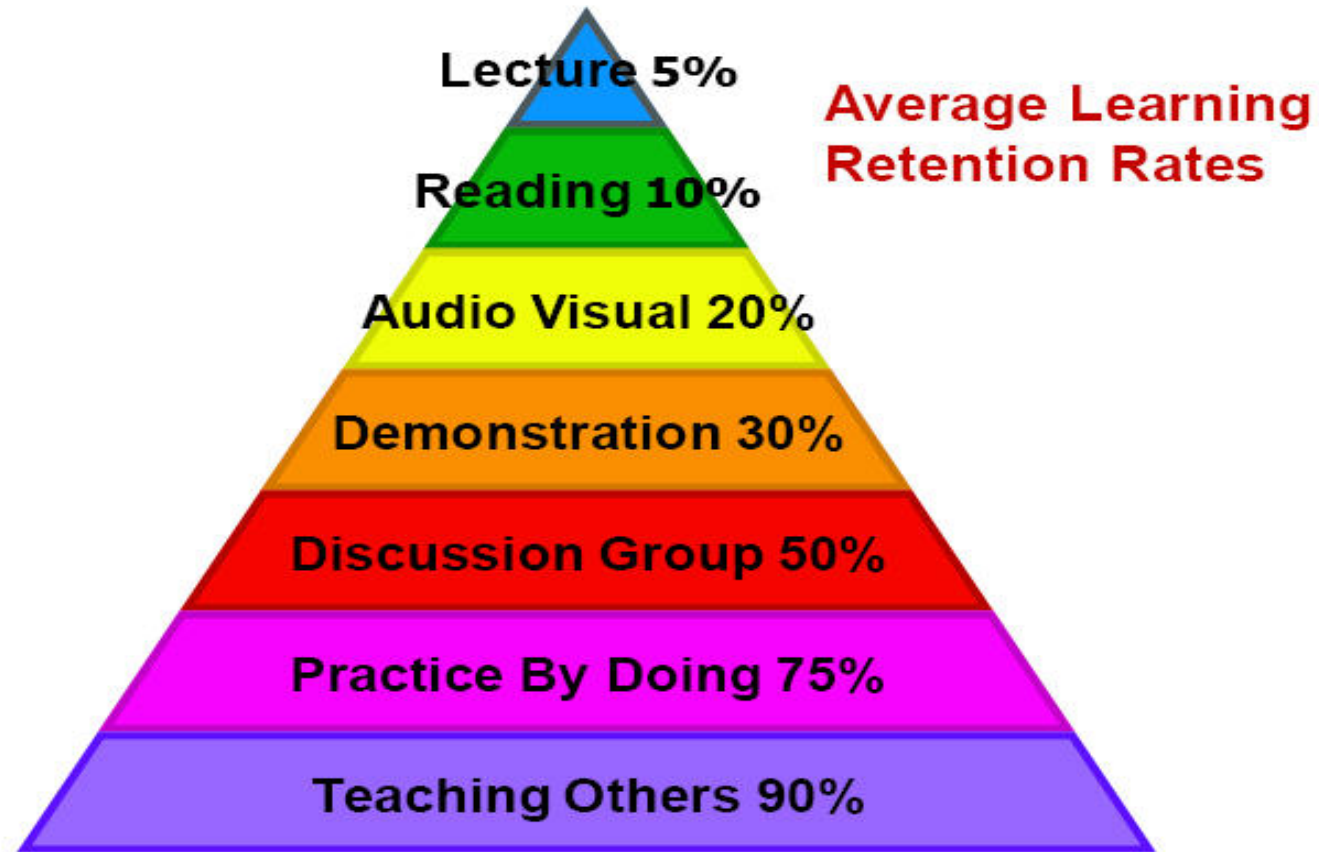
- 課程設計及授課方式
- 教學步驟
- 了解自己的教學風格

課程設計六步驟

- 一般需求
- 目標族群需求
- 學習目標、目的
- 教學方法與策略
- 執行面 (實務面困難)
- 評估與回饋



教學方式與學習果效



Source: National Training Laboratories, Bethel, Maine



教學步驟

A Five-Step “Microskills” Model Of Clinical Teaching

1. Get a commitment
2. Probe for supporting evidence
3. Teach general rules
4. Reinforce what was done right
5. Correct mistakes

教學的基本任務

- 引起動機、開場
- 講述
- 發問
- 討論
- 結語/回饋

1. Get a commitment

- Diagnose the learner
- Instill ownership
- Create a safe learning environment
- Prepare in advance
- Prepare a teaching script

你是住院醫師，負責帶兩位六年級實習醫學生。病房來了一位年輕女性，有胸痛及喘的問題。

你想要教學肺栓塞的鑑別診斷。

Sample 20-Minute Teaching Script

Topic: Approach to and Treatment of Pulmonary Embolism (PE)

Goals: The goal of this session is to learn about PE and explore the workup and management of an inpatient with symptoms suggestive of PE.

Learning Objectives: After this session, participant will be able to:

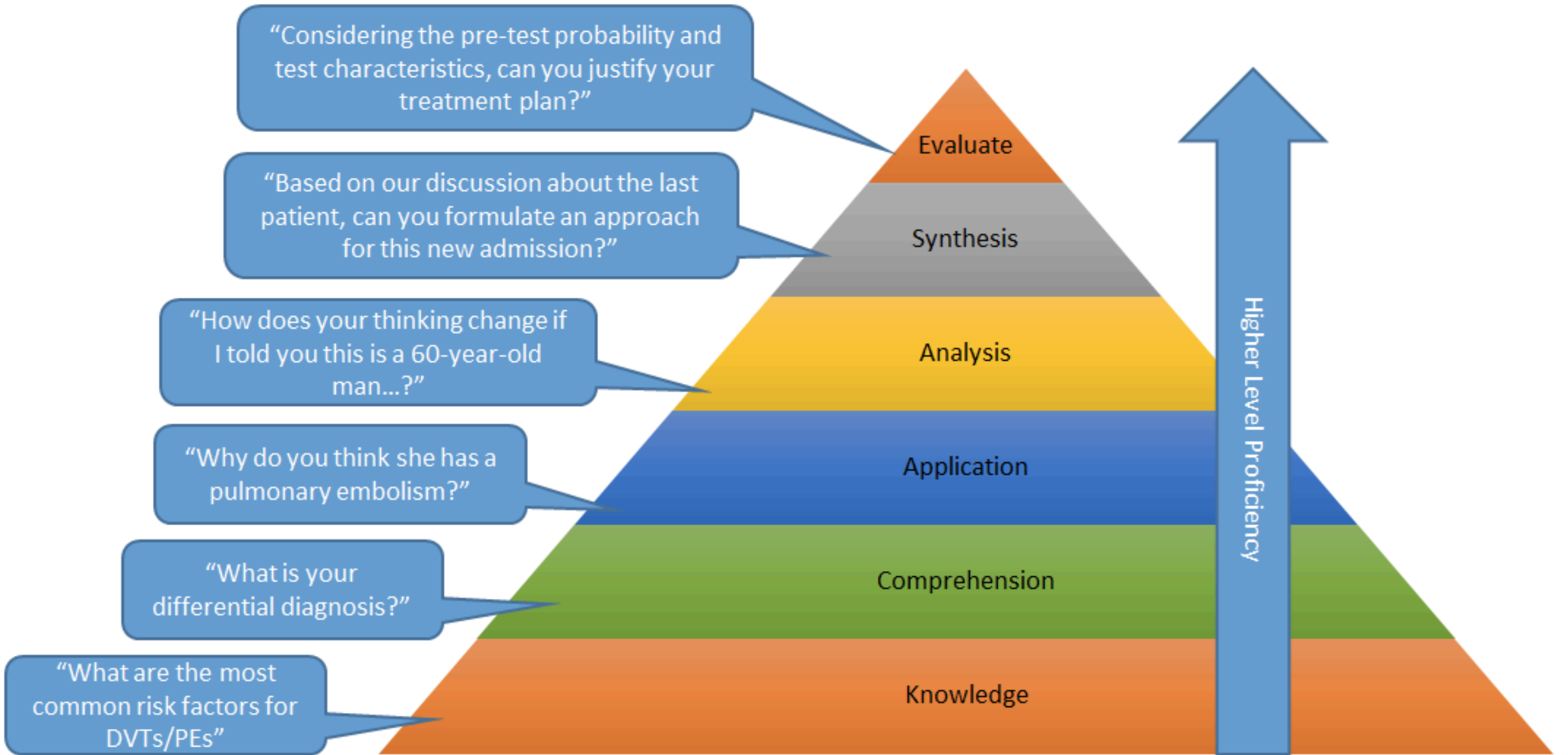
- Describe the common symptoms and physical manifestations of PE
- Propose an algorithm for workup in a patient with chest pain suggestive of PE
- Explain the difference between a CT-angiography and V/Q scan in the diagnosis of PE

Sample Teaching Plan

Mins Allotted	Activity
2	Case Review – 30-yo-woman G1P1 admitted with chest pain and SOB
5	Get Commitment <i>Probe for supporting evidence</i> Group discussion regarding thought process and approach to workup and management
10	Teach General Rules <ul style="list-style-type: none">▪ Common symptoms include pleuritic chest pain and SOB▪ Workup for low-risk, ambulatory patients may start with a D-Dimer▪ Workup for moderate or high-risk patients may require CTA chest or V/Q scan▪ Treatment choice depends on age, comorbidities, renal function, and patient preference▪ Duration of treatment dependent on underlying cause of PE
3	Summarize and Debrief <i>(Correct mistakes and reinforce what was done right)</i> <ul style="list-style-type: none">▪ Highlight your learning points▪ Relate general rules to the patient on rounds▪ Ask group to identify their own take-home points

2. Probe for supporting evidence

- Ask the right kind of questions
- Guide the learner to the correct answer



3. TEACH GENERAL RULES

- Provide **focused learning points**
- Consider the time and place
- Summarize

4. Reinforce what was done right

- Debrief
- Provide **positive feedback**

5. Correct mistakes

- Provide **constructive feedback**
- Praise in public, correct in private

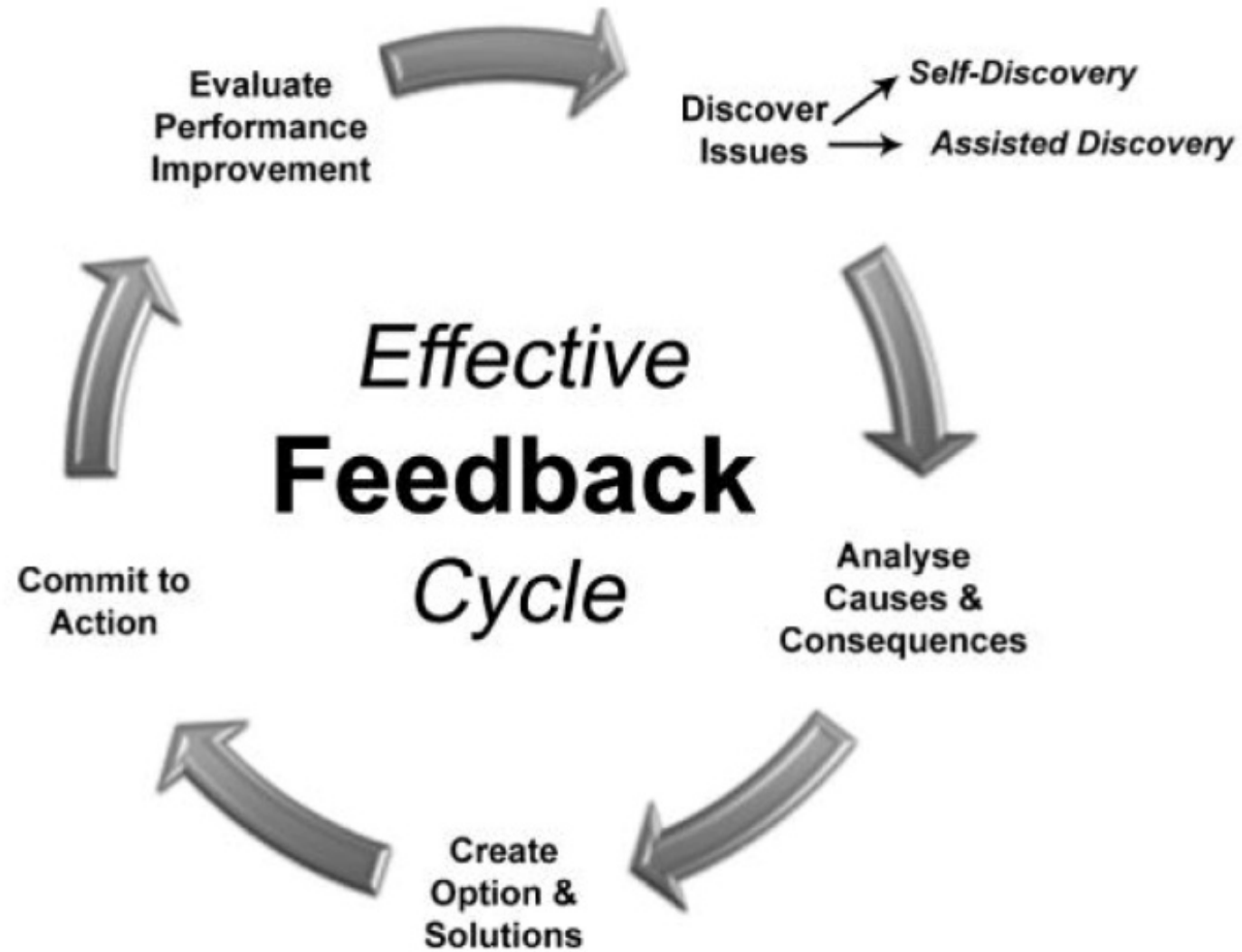
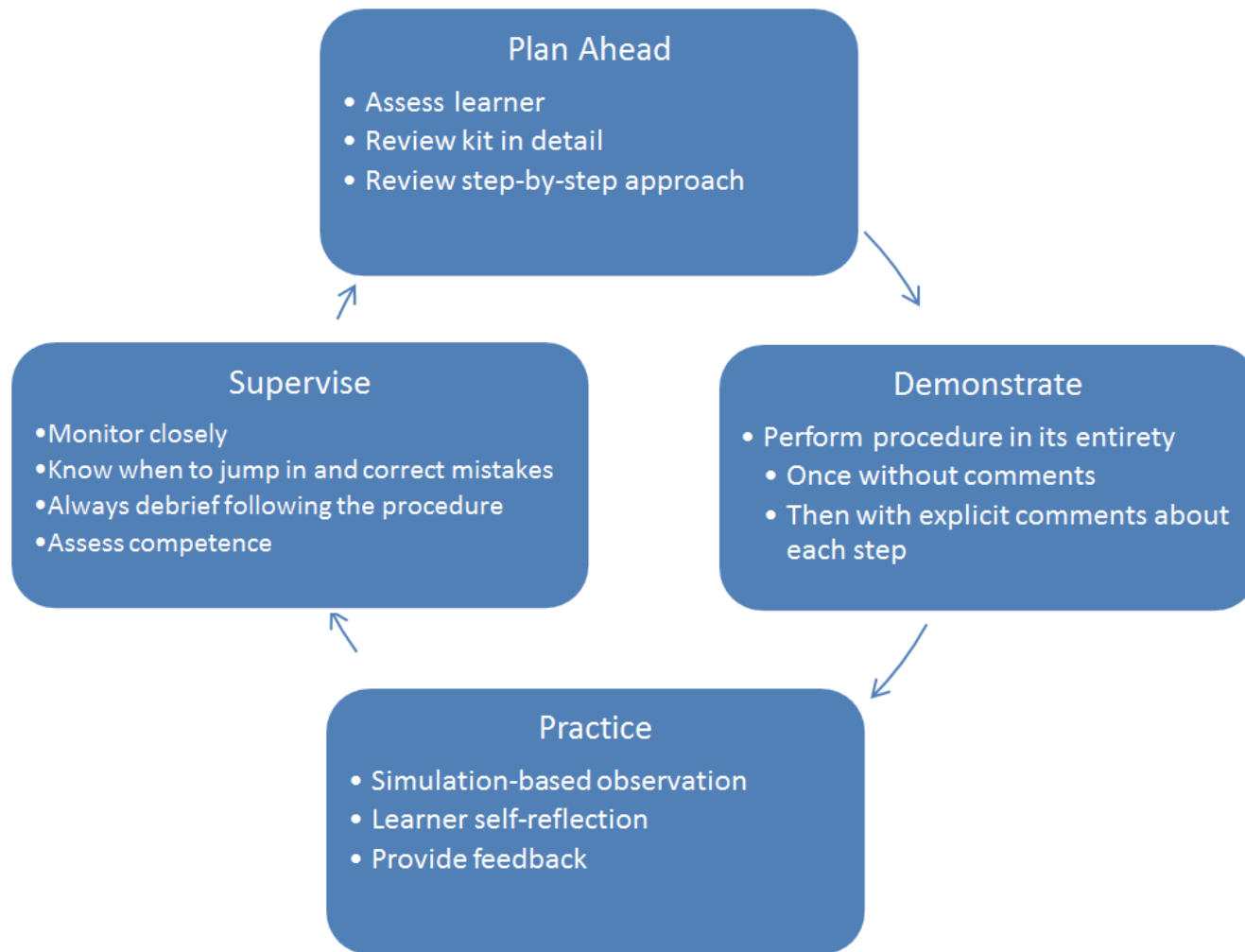


Fig2: Pendleton Feedback Loop

1. Establishment of an appropriate interpersonal climate
2. Use of an appropriate (private) location
3. Establishment of mutually agreed goals
4. Elicitation of the learner's thoughts and feelings
5. Reflection on *observed* behaviors
6. Use of nonjudgmental language
7. Connection of feedback to specific correctable behaviors
8. Provision of the right amount of feedback (not too much)
9. Inclusion of suggestions for improvement

TEACHING MEDICAL PROCEDURES



其他 – 認識學生也認識自己

	Student	Teacher	Examples
Stage 1	Dependent	Authority, Coach	Coaching with immediate feedback. Drill. Informational lecture. Overcoming deficiencies and resistance.
Stage 2	Interested	Motivator, guide	Inspiring lecture plus guided discussion. Goal-setting and learning strategies.
Stage 3	Involved	Facilitator	Discussion facilitated by teacher who participates as equal. Seminar. Group projects.
Stage 4	Self-directed	Consultant, delegator	Internship, dissertation, individual work or self-directed study-group.

Grasha's teaching styles: Staged elf-Directed Learning Model (SSDL) (Grow, 1991)

這樣的教學有效嗎？

Bbs.CNXP.Com

針對一下兩個練習題，請選責一並思考你會怎麼進行教學跟回饋？

練習1：今天有兩位六年級實習醫學生來該科受訓，剛接觸了一個因發燒跟腹痛的住院新病人要跟您回報討論，您是負責監督他們的住院醫師

練習2：您是某科總醫師，有一位新進R1
請求您指導一個他不熟悉的侵入性治療

Take home message

- 課程設計：
 - 臨床教學需要預備及練習
 - 需要認識學員的需求，也需要針對學員調整教學方法
- 可利用教學五步驟
- 切記「教學相長」，教也是在學



歡迎大家發問～