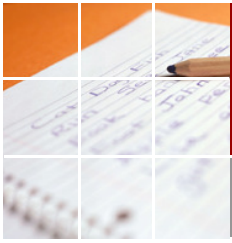




如何營造教學氣氛

陳怡行醫師
台中榮民總醫院
過敏免疫風濕科主任兼教學部副主任
陽明大學醫學系專任內科副教授



課程目標

- 上完本堂課希望學員能
 - 了解如何營造教學氣氛
 - 了解回饋技巧
 - 能以本堂所學於醫院有限之時間與空間中有效教學

武林學藝 VS. 杏林習醫



醫院員工:成人學習者Adult learner

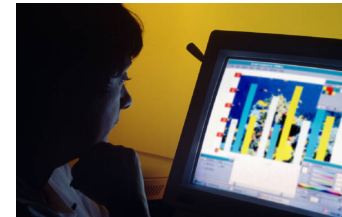
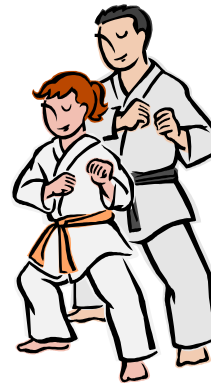
- 使用過去累積的經驗來學習
- 喜歡課程有系統且目標明確
- 想要知道課程內容的實際用處
- 學習態度自我導向且獨立
 - 希望教學者是學習協助者而非權威領導者
- 喜歡問題解決型的學習
- 希望走出教室就能運用所學

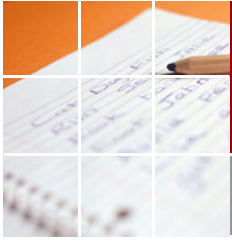


- Need to know why
- Self-directed
- Experienced
- Cope with life
- Practical learners
- Internally motivated

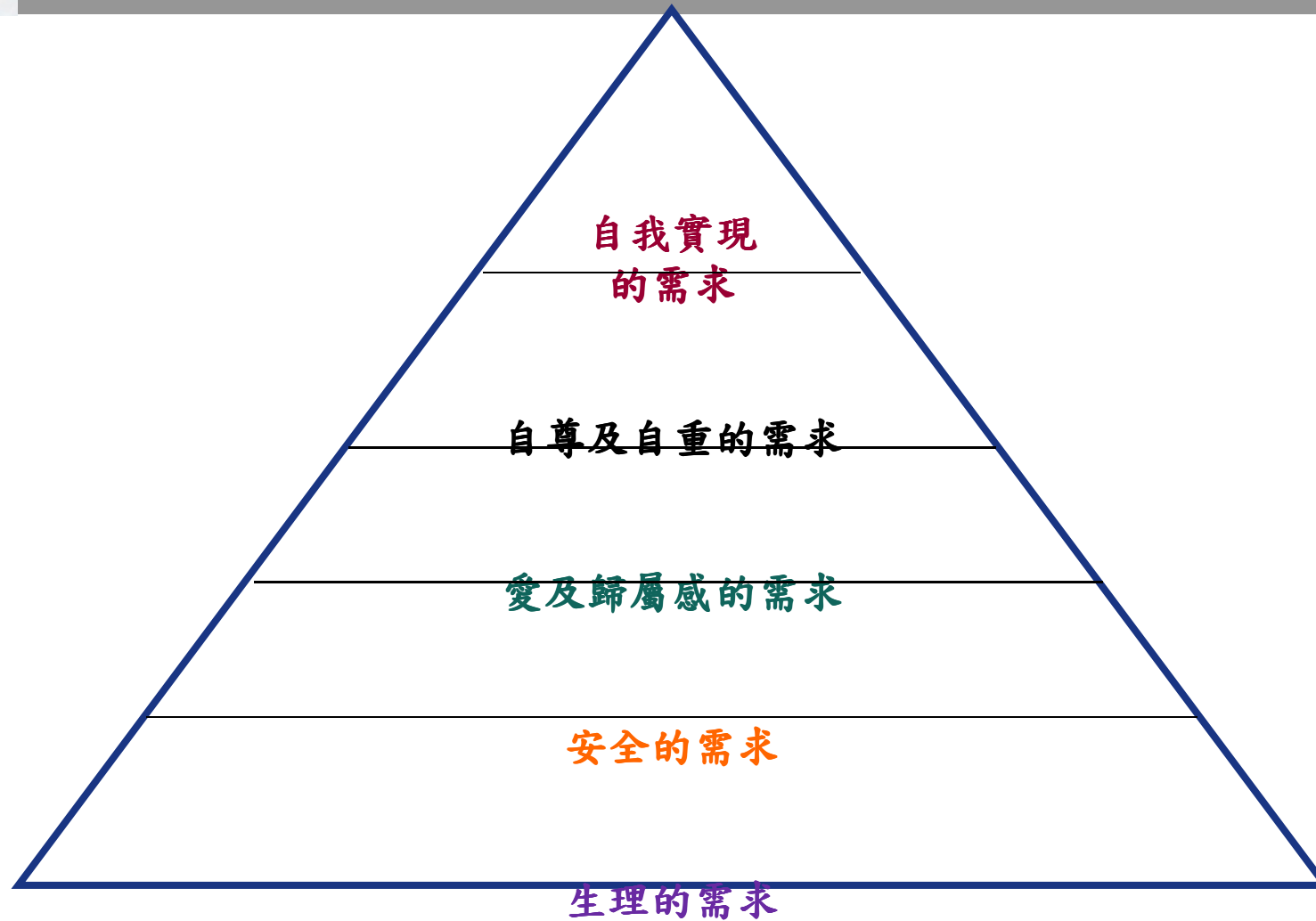
以Learner's Need為中心的醫學教育

- 以未來要擔任一位好醫療人員有什麼需求，以此為目標去設計發展和執行教學課程
- 教師應充分明瞭目的是在使學生學到東西，而非展示教師自己知道什麼東西
- 所以儘量用發問和引導取代多數的單向的演講式知識灌輸

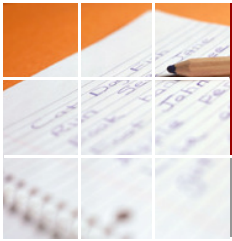




個人的學習需求 learning needs



Maslow 需求層次論1970



有效教學7大要素

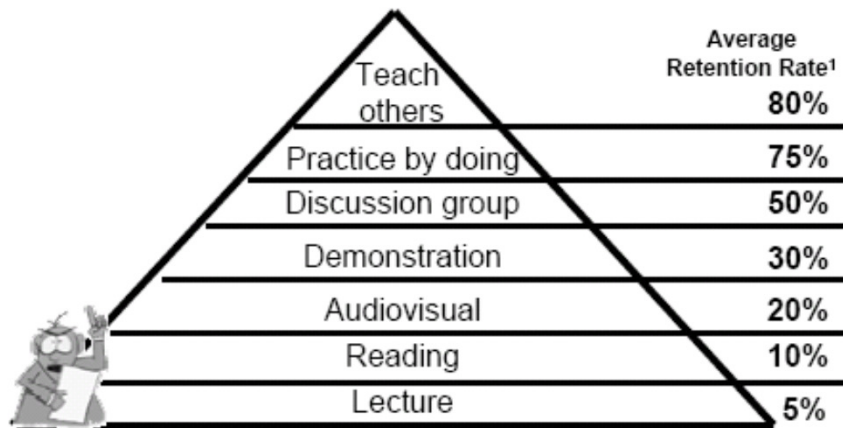
Effective Teaching Principles

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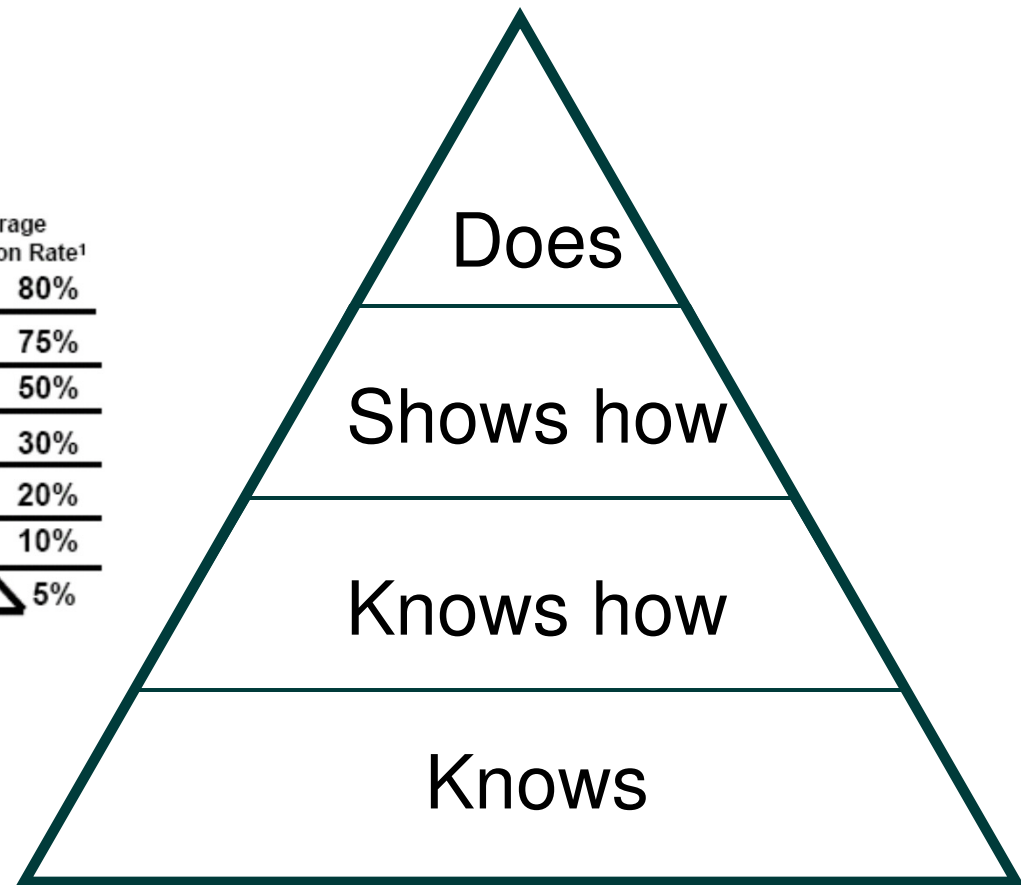
Report of the Ad Hoc Senate Committee on Teaching Quality, Effectiveness and Evaluation, May 1999
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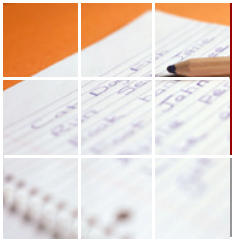
課程設計者應根據學習者及職場需求選擇適合的教學方法

When do we learn most?



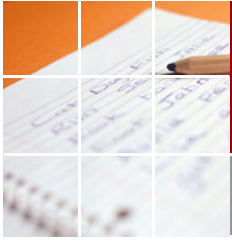
¹ National Training Laboratories, Bethel, Maine, USA





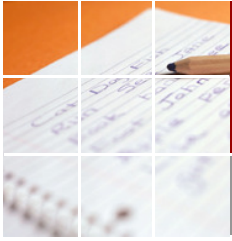
醫學教育常用的教學方法

- 閱讀(Readings)
- 演講(Lectures)
- 示範(Demonstration)
- 小組討論(Group Discussion)
- 標準病人(Standardized patients)
- 模具(Simulators)
- 臨床經驗(Clinical experiences)
- 角色模範(Role models)



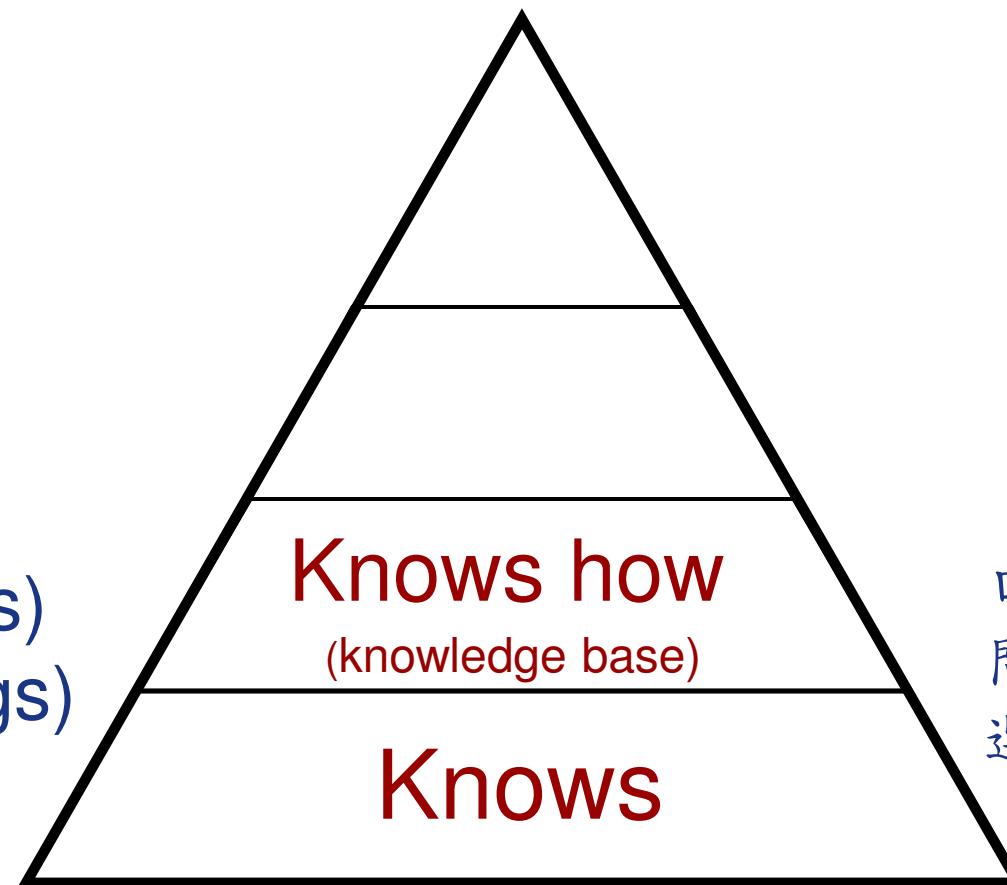
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Clinical teaching / assessment: Knows & Know How

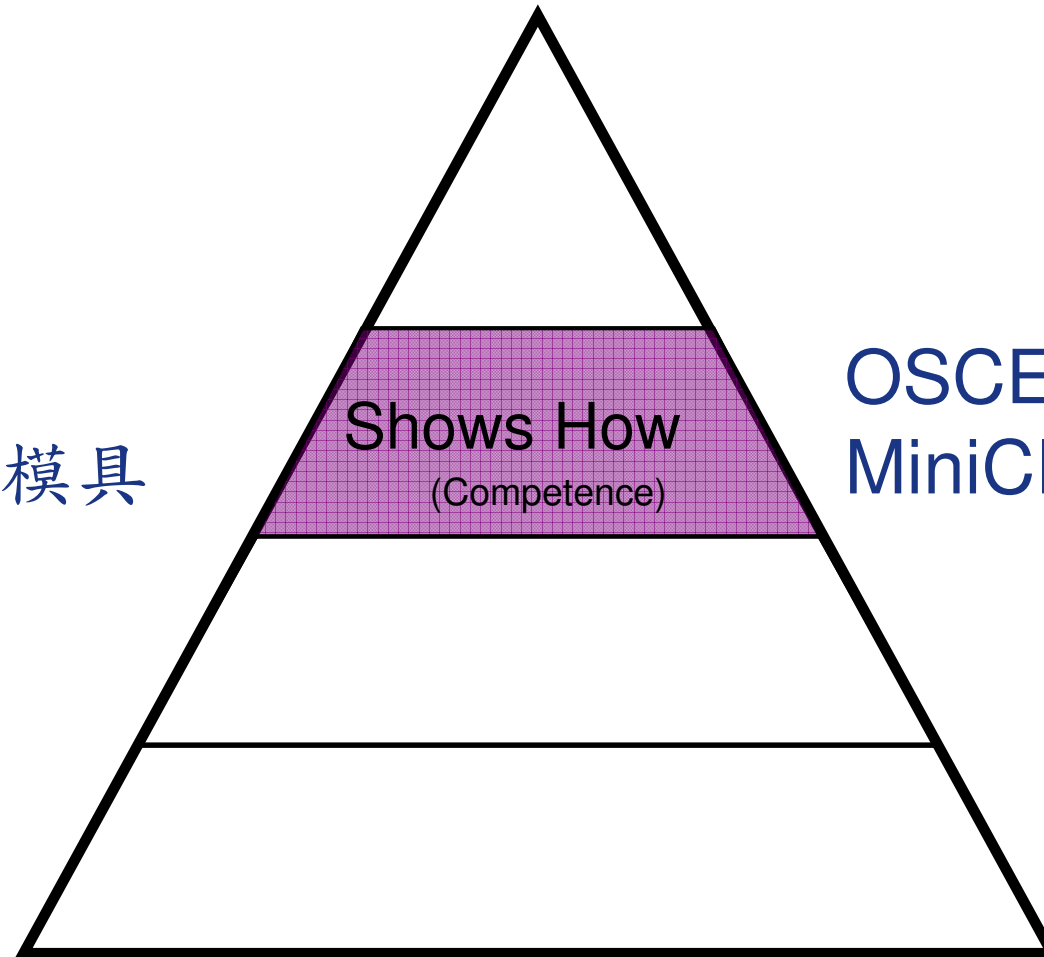
演講(Lectures)
閱讀(Readings)



口試
問答題
選擇題

Clinical assessment: Shows How

示範
小組討論
標準病人, 模具

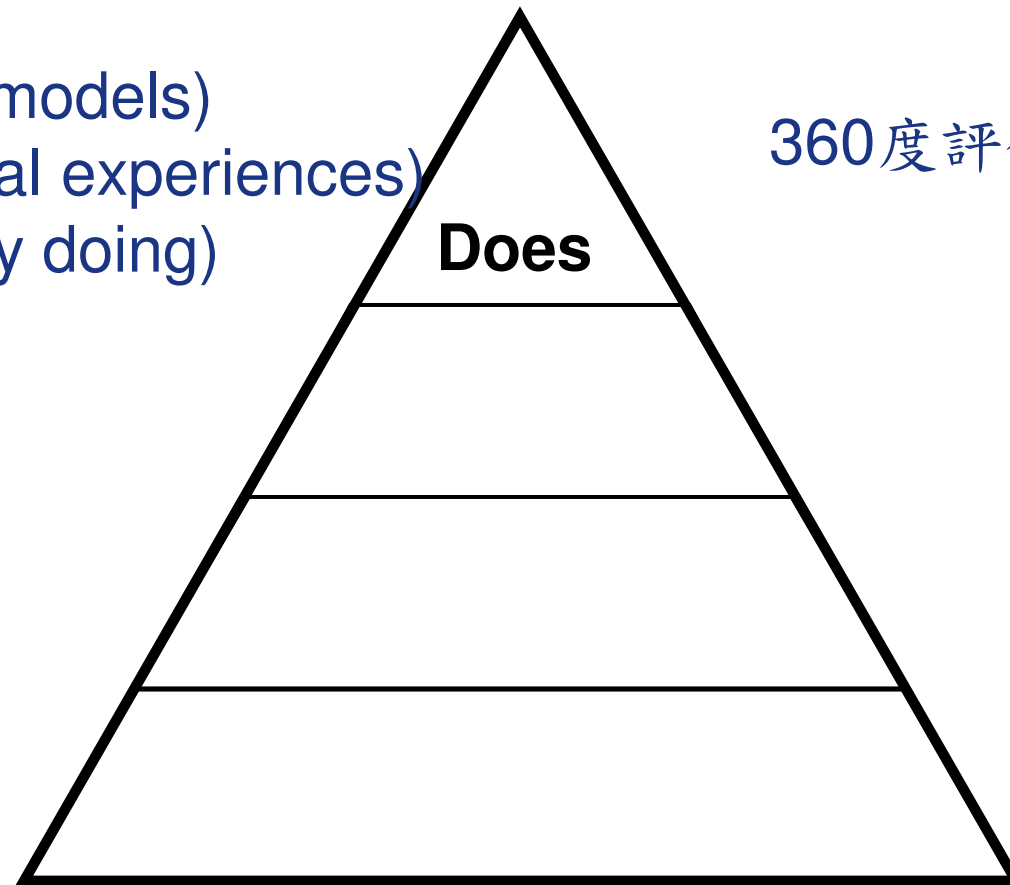


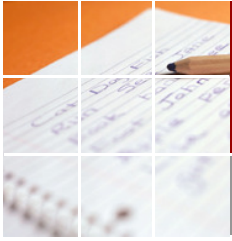
OSCE/標準病人
MiniCEX, DOPS

Clinical teaching / assessment: Does

角色模範(Role models)
臨床經驗(Clinical experiences)
實作(Practice by doing)

360度評估(MSF)



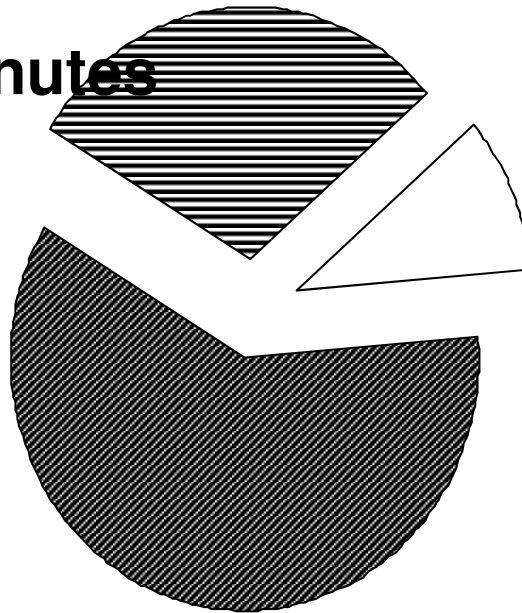


The “One Minute Preceptor”

一分鐘黃金教學法

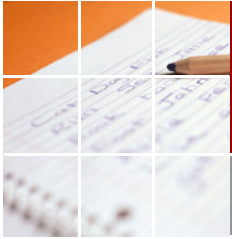
10 Minutes of “Teaching Time”...

Questioning: 3 Minutes



Discussion: 1 Minute

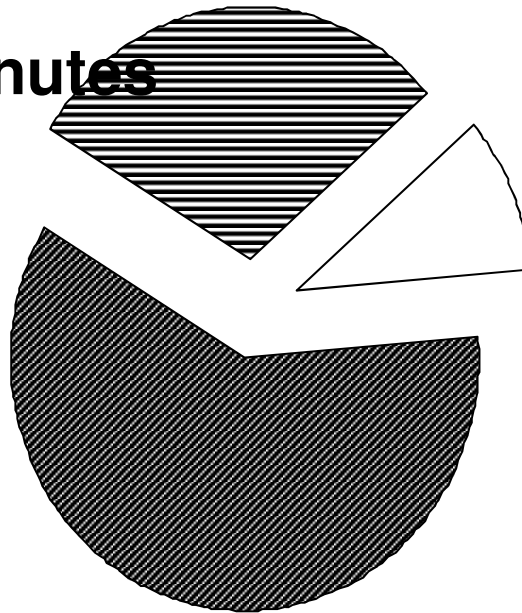
Presentation: 6 Minutes



The “One Minute Preceptor”

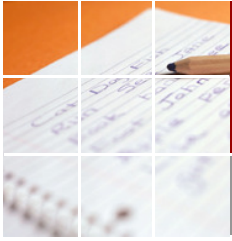
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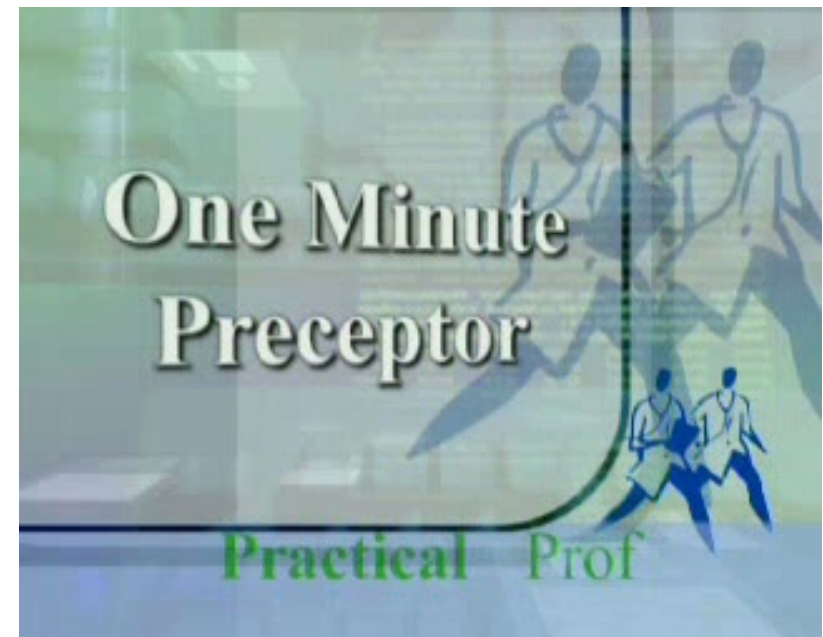
Presentation: 6 Minutes



五步驟快速一分鐘黃金臨床教學法

The 5-Step Microskills Method

1. Get a Commitment
2. Probe for Supporting Evidence
3. Reinforce What Was Done Well
4. Give Guidance About Errors or Omissions
5. Teach a General Principle



有效學習之過程 Effective Learning

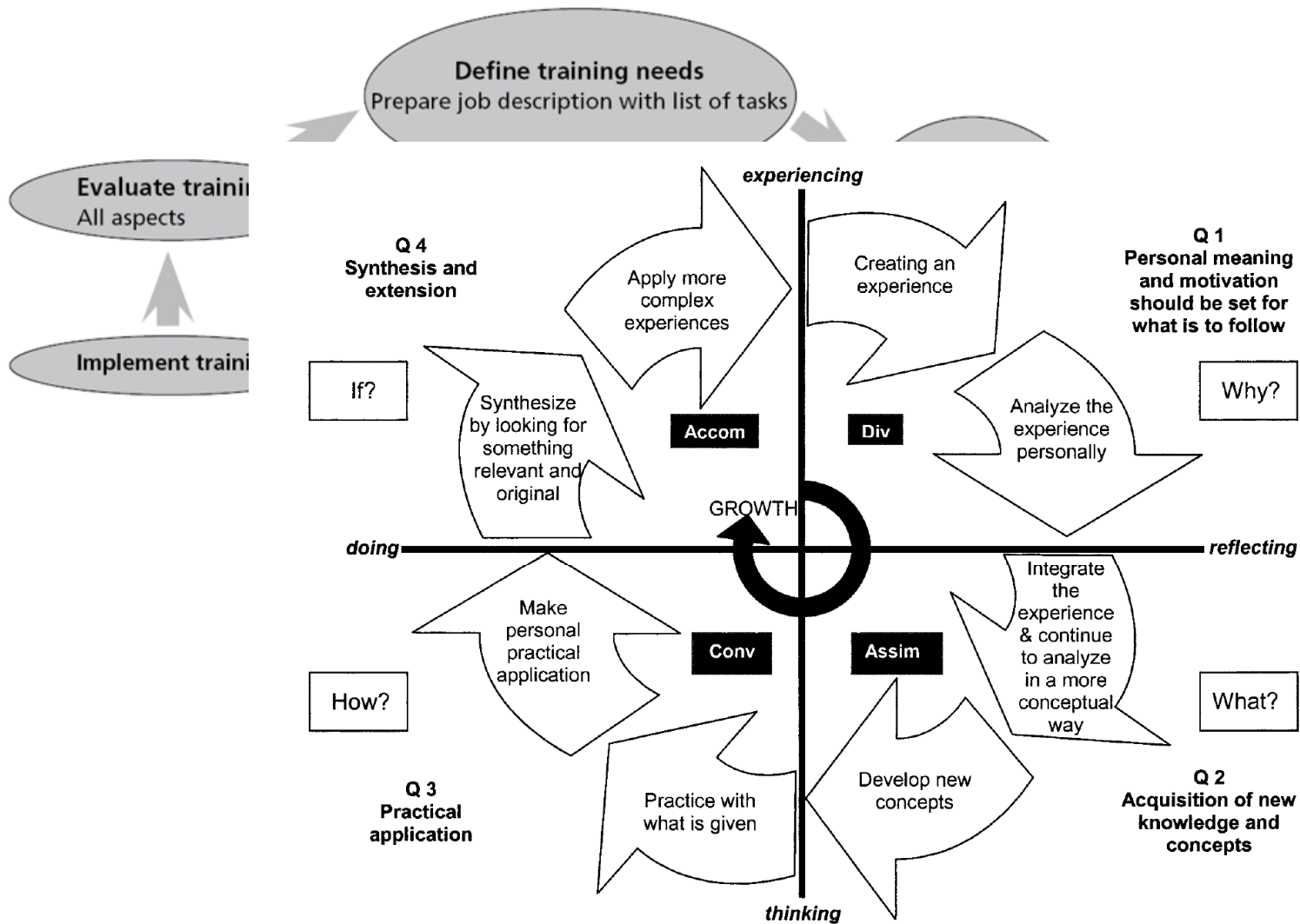
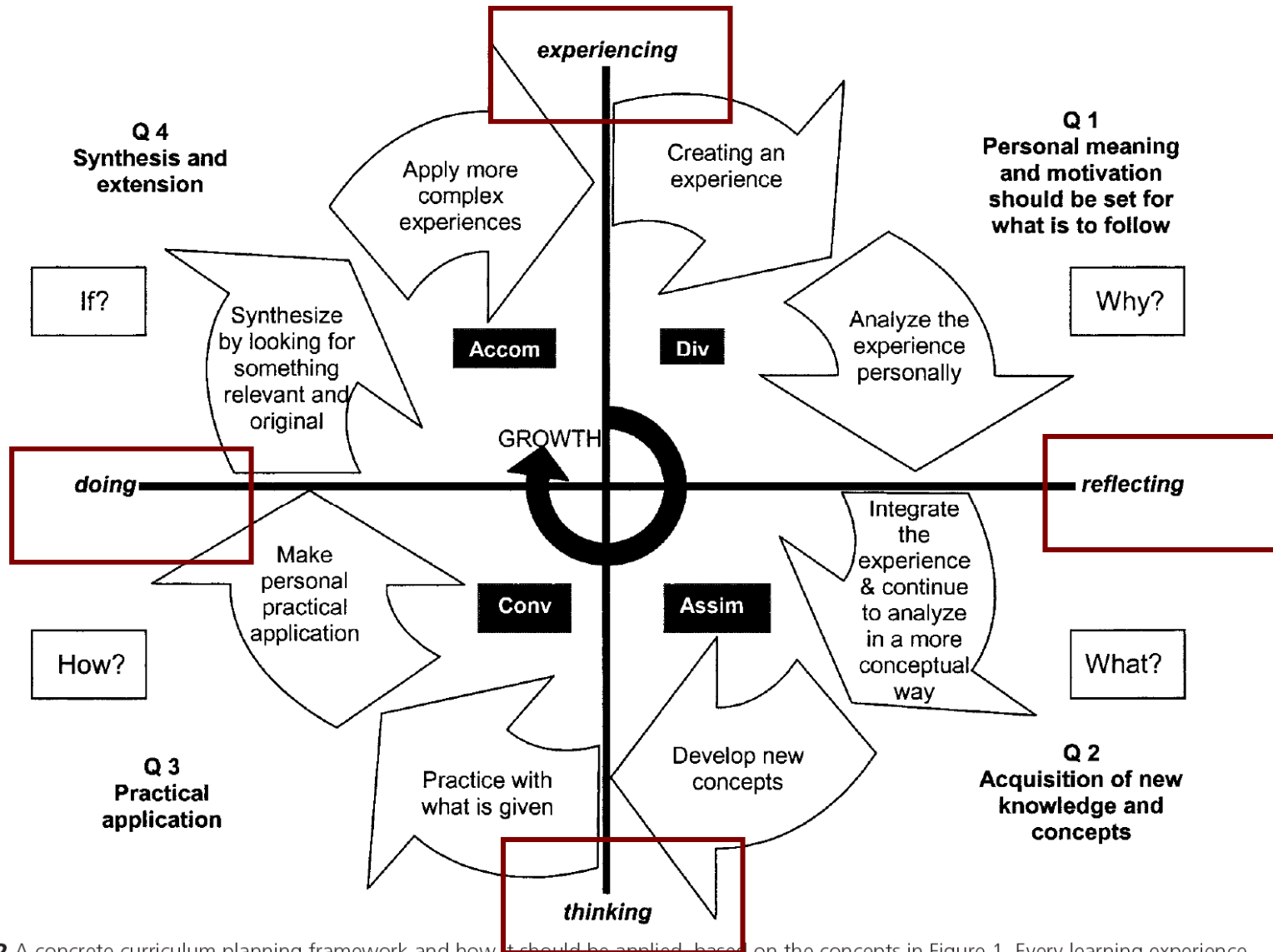


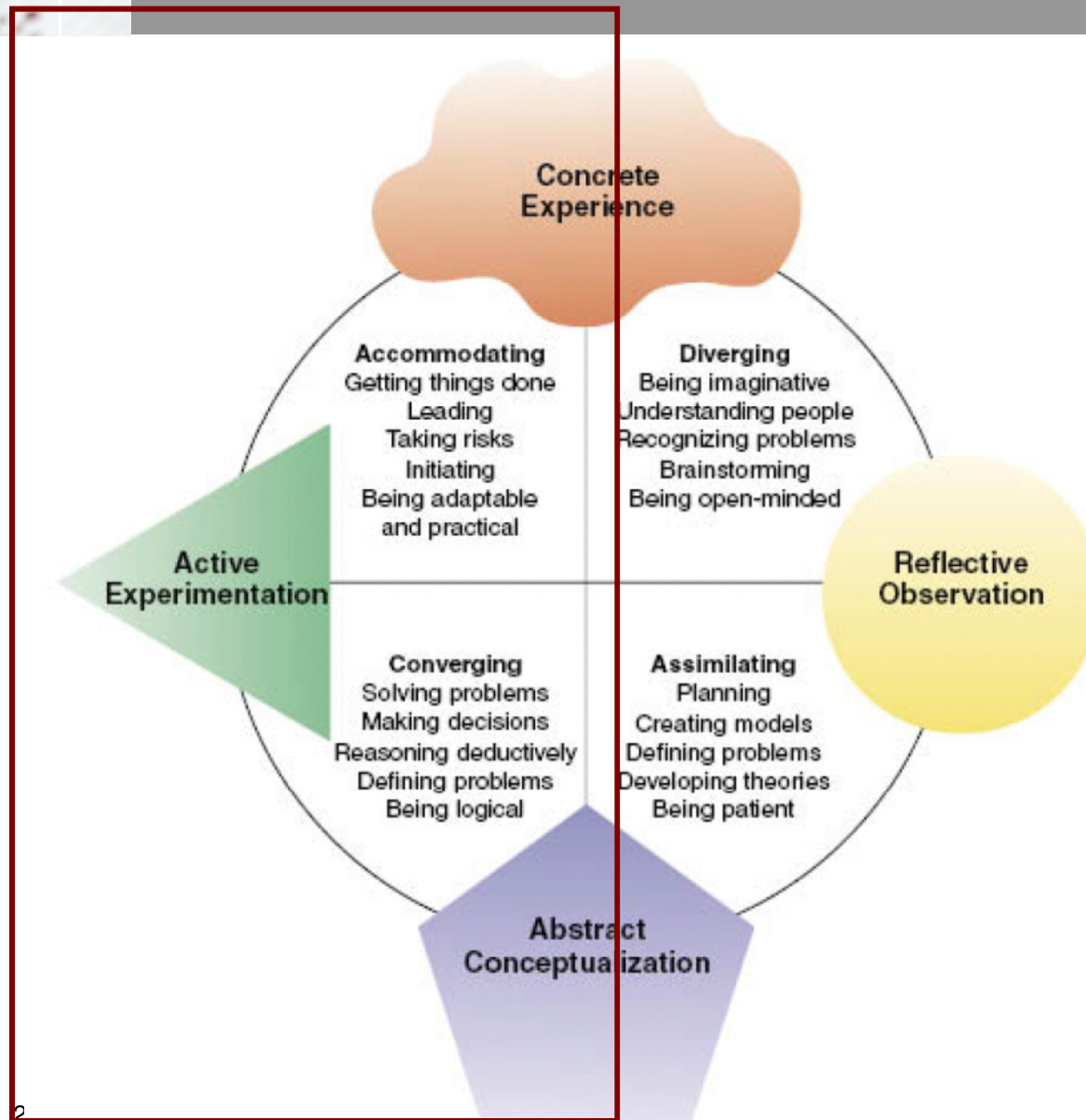
Figure 2 A concrete curriculum planning framework and how it should be applied, based on the concepts in Figure 1. Every learning experience should begin at quadrant 1 and move through the cycle shown in the figure to its natural conclusion in quadrant 4.

由有效學習之過程看如何設計教學內容 (curriculum design)



2013/12/19 **Figure 2** A concrete curriculum planning framework and how it should be applied, based on the concepts in Figure 1. Every learning experience should begin at quadrant 1 and move through the cycle shown in the figure to its natural conclusion in quadrant 4.

Learning Styles and Educational Planning



Concrete Experience (CE)

Learning by experiencing

- Learning from specific experiences
- Relating to people
- Being sensitive to feelings and people

Active Experimentation (AE)

Learning by doing

- Showing ability to get things done
- Taking risks
- Influencing people and events through action

Abstract Conceptualization (AC)

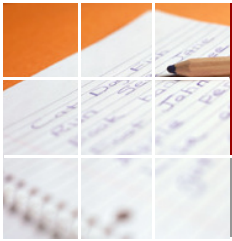
Learning by thinking

- Logically analyzing ideas
- Planning systematically
- Acting on an intellectual understanding of the situation

Reflective Observation (RO)

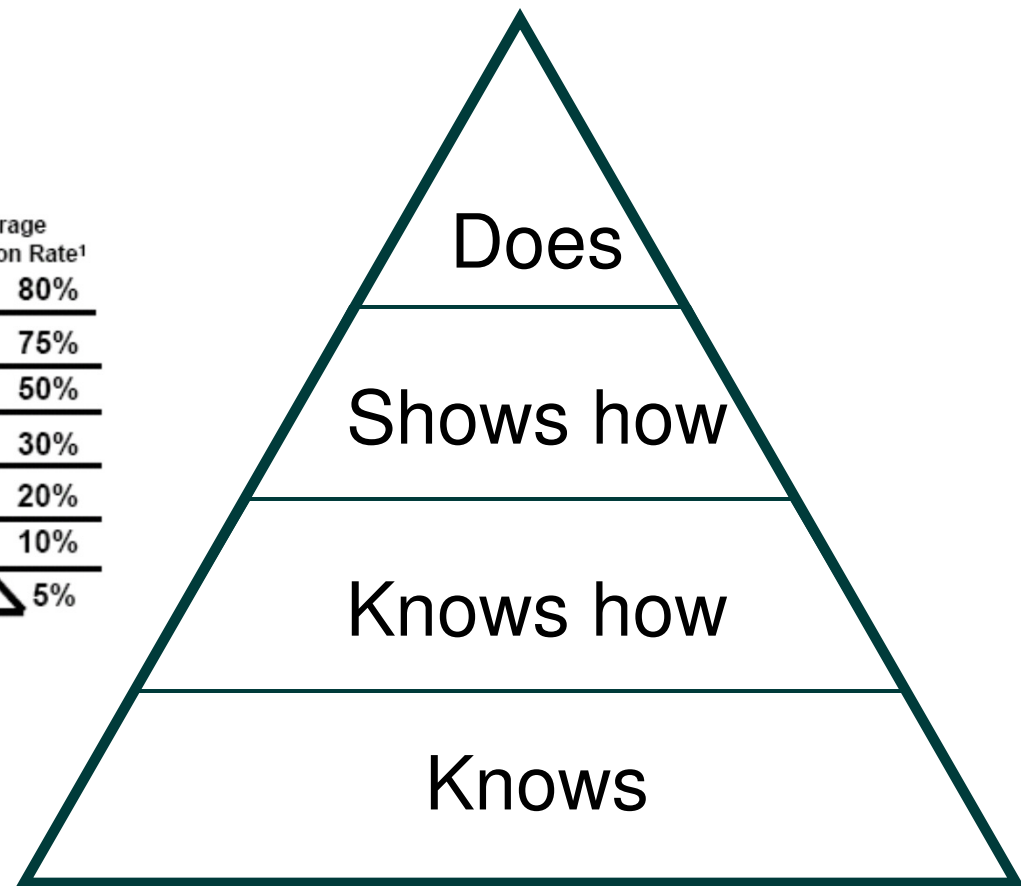
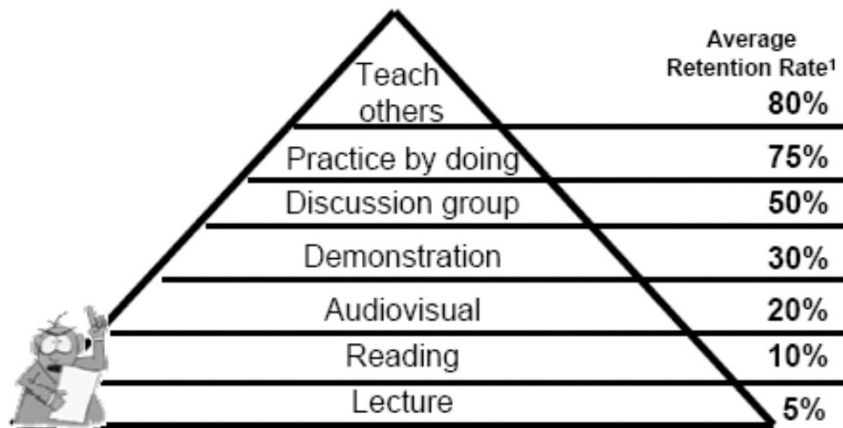
Learning by reflecting

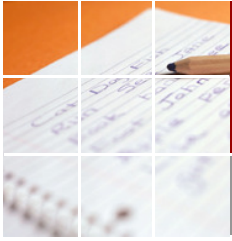
- Carefully observing before making judgments
- Viewing issues from different perspectives
- Looking for the meaning of things



課程設計者應根據學習者及職場需求選擇適合的教學方法

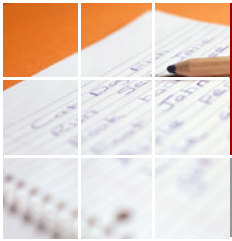
When do we learn most?





The teachable moment

- 好老師懂得抓住可以teaching的每一刻
- 每一個case 都會有值得teaching的部份
 - 老師要能幫學生點出來



有效教學7大要素

Effective Teaching Principles

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回饋的技巧



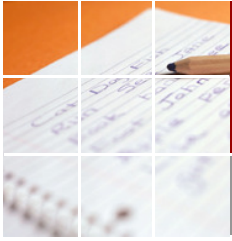
Why學習要有回饋?

- 回饋的內容需與學習目標有關
- 有效的回饋可協助學生學習更迅速成長不要走冤枉路



nipic.com/OK





Assessment of learning outcome in the workplace

■ Assessment (評估)

- An important component of the teaching-learning process.
- Used to measure learning outcomes.

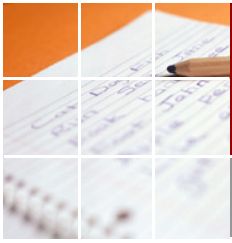
■ Feedback (回饋)

- About students' performance
- Must be **immediate** and **continuous**.

有效的回饋

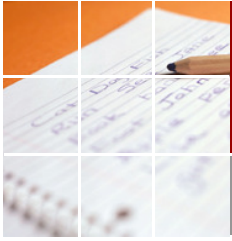
- 時效性
- 具體的
- 有建設性的
- 矯正性的
- 描述性的
- 可以各種形式呈現
 - 語言(包括肢體語言)
 - 文字
 - 獎狀、獎品
 - ...





有效的回饋

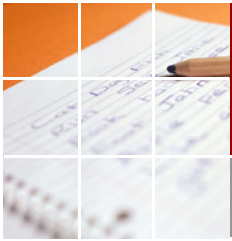
- 要能符合學生需求
 - 學生願意聽且能理解
 - 三明治回饋法
- 應聚焦於學生學習表現(工作)品質並提供達到此品質目標的方法
- 協助學生增進自我改善學習方法的能力



不具體且無建設性的回饋

- 連這個也不會，你是哪間學校畢業的?!
- 寫這個什麼爛病歷(丟出去), 給我回去重寫!





具體且建設性的回饋

- 陳醫師在病歷上只寫cardiac murmur(+) 是不符合要求的, 你應該要把murmur的大小, 特性, 有無傳導都記錄下來, 如 a grade 3/6 systolic blowing murmur over apex with radiating to left axillary region....

建設性且有矯正性的回饋

- 看起來林醫師對關節炎的背景知識還不大夠，我建議你今天晚上回去先把Harrison第311章看完後我們明天早上再討論。



不具建設性的回饋

- 很好很好....

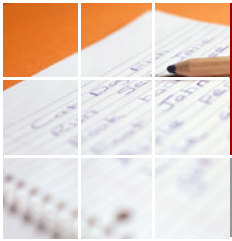


無時效性回饋

- 在月底已經round完以後...
 - 我覺得你表現真的很不理想, order亂七八糟開....

???
??



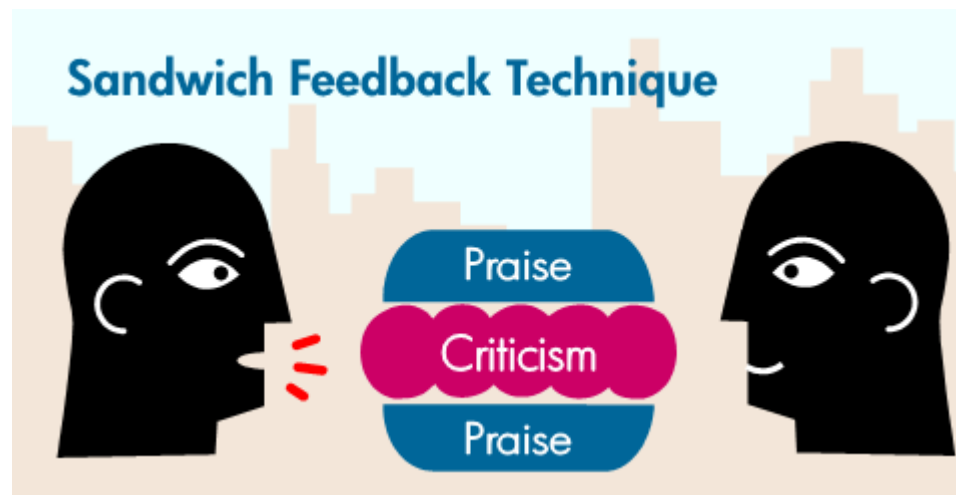


時效性且建設性的回饋

- 我剛剛看了你昨天晚上接新病人林先生的入院 order, 林先生有高血壓、糖尿病而且在洗腎，陳醫師的 diet order 確只有寫 “on regular diet”，這樣是不夠的。你應該要將林先生一天可以由飲食攝取的水份、熱量、蛋白質、鈉鹽及鉀鹽都要清楚開在處方上，營養師才能幫林先生調配合適的飲食...

三明治回饋法

- **Top:** Say what was done well (encourage student)
- **Middle:** Say what was not so good or wrong (correct mistakes)
- **Bottom:** Give specific suggestions for the next time (improve performance)





三明治回饋法

- Specific
 - 說明實際觀察到的行為或現象
- Positive
 - 強調表現好的部份並提供較不完美的部份如何改進的具體建議
- Useful
 - 確保學生能因你的回饋再合理時限內改變行為
- Supportive
- Private
 - 不要在病人面前給負向回饋



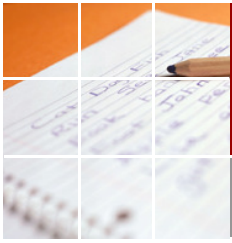
三明治回饋法

- Factual
 - 必須是根據第一手證據資料來給回饋
- Fair and honest
 - 公平且誠實坦率
- Immediate
 - 可使回饋更實際且有意義，學生也比較容易了解前因後果
- Focused
 - 描述觀察到的行為並提供足夠的細節讓學生知道該如何改進



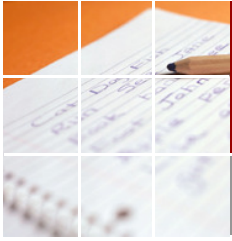
回饋要多少才足夠？

- 回饋通常在於「修復」缺點，但是不是每個人都能達到完美境界。
- 以學生為中心，當學生達到某種階段性目標即可認為是好的
 - Intern
 - R1, R2, R3, CR
 - VS
- 設定階段性學習目標



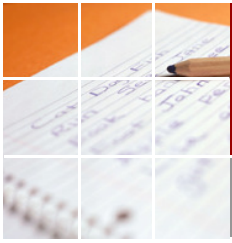
何種回饋形式較佳？

- 口頭
- 文字
- 獎品(金)獎狀？
- 個別回饋 VS. 團體回饋



如何讓你的回饋更好、更有效？

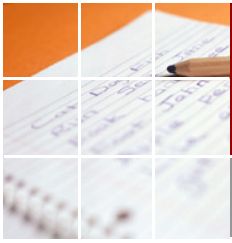
Practice
makes
perfect



回饋實作

- 住院病人65歲王太太原本預訂今天要出院，結果上午11點鐘下床時跌倒了,造成前額撕裂傷。結果你發現值班PGY醫師在早上5點鐘時因為病人抱怨整夜沒睡覺所以處方了一顆 Stilnox。

• 請用三明治法給予口頭回饋



回饋實作

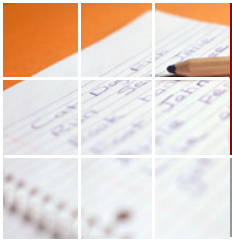
- 你早上查房時發現intern primary care的72歲病人前一天晚上I/O 已經over 1500ml, 且病人有明顯下肢水腫現象，但PGY醫師並沒有及時處理更改輸液處方，藥物之order 每日靜脈輸液仍有0.9% G/S 2500ml。

- 請用三明治法給予口頭回饋



回饋實作

- Intern 對一SLE pneumonia 住院第三天的病患
progress note 這樣寫
- S/O : vital signs stable
conscious clear
BCS: WNL
A: SLE
P: keep current treatment
- 請用三明治法給予口頭回饋



書面回饋實作

夾頁之教案是
你的導生，
請根據學生的情形
寫下你的文字回饋



Kirkpatrick's 4 levels of program evaluation

Evaluation level	What does it test	Examples
Level 1 : Reaction	<ul style="list-style-type: none"> ■ Participants' immediate satisfaction ■ Perception of usefulness ■ Motivation 	<ul style="list-style-type: none"> ■ Likert's scale ■ Focus group ■ Structured interviews
Level 2 : Learning	<ul style="list-style-type: none"> ■ Acquisition of knowledge, skills and behavior 	<ul style="list-style-type: none"> ■ Pretest and posttest ■ Standard MCQ ■ Essay question
Level 3 : Transfer	<ul style="list-style-type: none"> ■ Transfer of knowledge , skills and behavior into real life 	<ul style="list-style-type: none"> ■ Chart reviews ■ Surveys ■ Observations
Level 4 : Results	<ul style="list-style-type: none"> ■ Ultimate and intended outcome (醫療品質&病人安全) 	<ul style="list-style-type: none"> ■ Chart reviews ■ Surveys



Kirkpatrick's 4 levels of program evaluation

- Level 1 : Reaction
- Level 2 : Learning
- Level 3 : Transfer
- Level 4 : Results
 - 最難量
 - 最好有一特定目標
 - 例如： This program will reduce the incidence of medication errors in the department by 30% compared to baseline during the 6-month period following program implementation.