

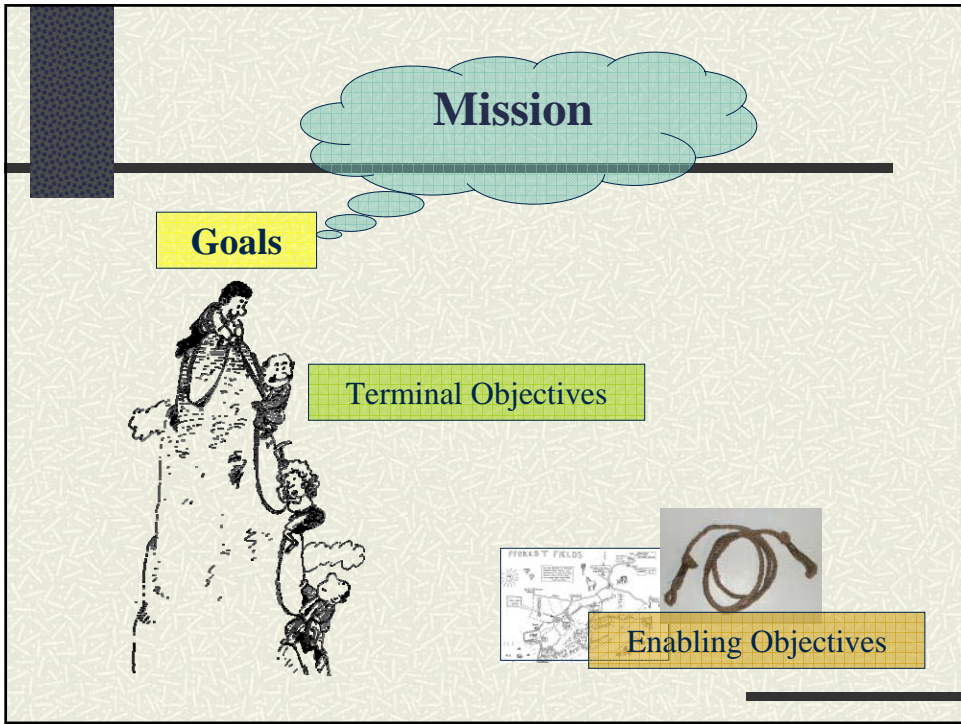
Define the learning objectives

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Objectives

At the end of the workshop, participants will be able to :

- Value the importance of defining “learning objectives”
- List essential components of a “clear objective”
- Write objectives for a program/course/unit



Why “learning objectives”?

教育目標是“教育”的根基

*Objectives ---
Building Blocks*

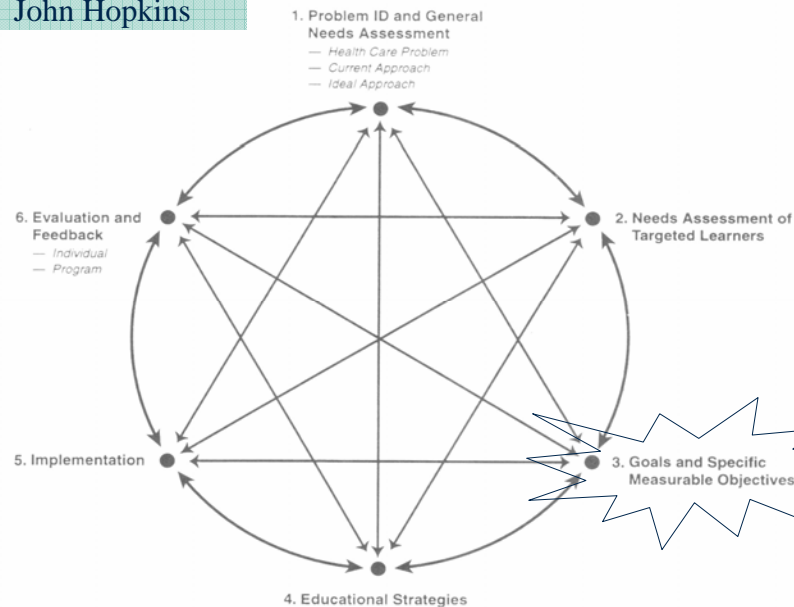
Objectives ---
Building Blocks

Purpose of “writing objectives”

- ✦ To describe detailed content as lists of facts
- ✦ To define the behaviours to be acquired
- ✦ To indicate the most suitable learning experiences
- ✦ To ensure all learners acquire basic competencies
- ✦ To provide a blueprint for examinations

Six elements of “curriculum development”

John Hopkins



Without objectives...

講堂中.....

學生:

[教太多、內容重複]

[教得太難，沒有基礎，銜接不上，聽不懂]

[教得太簡單，沒有收穫]

[偏離主題]

[不知道老師明天要教什麼，無從準備起]

老師:

[不知道要教些什麼？要怎麼教？]

PBL教學中.....

學生:

[和別組同學學的東西不一樣]

[和上一屆學長學到的不一樣]

老師:

[討論散慢，達不到目的]

[不知道該深入到什麼程度？]

[教案實在很難編寫]



考場上.....

學生:

[這些題目老師沒教]

[這些題目不在考試範圍內]

老師:

[出題目實在很難]

It is not an easy task!

教學綱要

教學目標	讓同學瞭解基本耳鼻喉及頭頸部疾病之診斷及治療，以備將來行醫時能做正確之判斷及評估。	
先修科目		
教材內容		
教學方式	本課程為組合式教學方案，由[]耳鼻喉科老師共同授課。課程前段以基礎耳鼻喉科學為主。上課形式以老師講授為主輔以投影片或幻燈片。對於一些特殊生理功能的介紹，將以錄影帶觀賞的方式進行教學及解說。	
參考書目	1、指定教科書 Otorhinolaryngology: Head and Neck Surgery; John Jacob Ballenge; 1996; Williams & Willins Otolaryngology Head and Neck Surgery; Dewese & Saunders; 1994; Mosby	
週次月 日	課程單元或主題	授課老師
一 11/12	Disease of the middle ear	[]

上課地點	上課時間 星期5 第8節
教學綱要	
教學目標	
先修科目	
教材內容	
教學方式	<p>本課程上課方式以講授、問答、討論及撰寫心得報告為主……。</p> <p>本課程將使用英文教科書，故請務必加強英文閱讀能力，並切實做好課前預習及課後複習的工作……。</p> <p>或例：1. 教師講授（示範） 2. 觀賞影片、錄影帶 3. 共同討論</p>

Identifying Learning Objectives

The diagram shows a 3D rectangular box. Three dimensions are indicated with arrows: 'Learners' (diagonal arrow pointing up-left), 'Content' (horizontal arrow pointing right), and 'Depth' (vertical arrow pointing down).

Domains and Taxonomy

Identify the depth (Learning taxonomy)

	Cognitive	Psychomotor	Affective
Knowledge	Recalling	Observing	Receiving
	Comprehending	Imitating	Responding
Application	Applying	Practicing	Valuing
Problem-Solving	Analyzing	Adapting	Organization
	Synthesizing	Originating	Characterization
	Evaluating		

“Being compassionate to patients” How to write ?

	Cognitive	Psychomotor	Affective
Knowledge	Recalling	Observing	Receiving
	Comprehending	Imitating	Responding
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	Evaluating		

Learning objective

- # A: Audience
- # B: Behavior
- # C: Condition
- # D: Degree

WHO will **DO HOW** much (how well) of **WHAT** by **WHEN**

使用正確的動詞

	Bloom's 認知	Simpson's 技術	Krathwohl's 情感態度
知道	記憶、了解	觀察、模仿	接受、回應
應用	應用、使用	練習	成為價值
解決問題	分析、組織、評估	熟練適應、創新	成為行為準則、特質

使用語意明確的動詞

語意模糊的動詞

知道 (Know)
了解 (Understand)
體會 (Appreciate)
抓住其精義 (grasp
the significance of)
喜歡 (Enjoy)
相信 (Believe)

語意明確的動詞

寫出 (Write)
背頌 (Recite)
辨識 (Identify)
排序 (Sort)
建構 (Construct, built)
比較 (Compare)

Learning/Teaching Objectives

- Terminal objectives
- Enabling objectives

必須明確而實用
Must be explicit, documented, feasible

Workshop for “defining learning objective”

At the end of the workshop, the participants will be able to ...

	Cognitive	Psychomotor	Affective
Knowledge	List components of a “clear objective”	Write “A, B, C, D” for a learning objective	Describe at least 5 reasons to define “clear objectives”
	Explain why the components are essential.		
Application	Describe the steps to define clear objectives for a program/course/unit	Write clear objectives for a given course/unit	Value the importance of defining “learning objectives”
Problem-Solving	Identify the “flaws” for a given “learning objective”	Revise or develop new objectives for a given course	Voluntary spent time in writing objectives for all the courses.

At the end of the workshop, participants will be able to :

- Value the importance of defining “learning objectives”
- ~~List essential components of a “clear objective”~~
- Write objectives for a program/course/unit

Terminal objectives

At the end of the workshop, participants will be able to : **Enabling objectives**

- Describe at least 5 reasons to define explicit objectives
- Given an objective, identify its type (domain) and cognitive level
- List essential components (A, B, C, D) of a “clear objective”
- Use explicit and appropriate verbs to define the objectives

More Exercise

■ Given a boy with increased BUN, Cr, a year 6 medical student is able to collect necessary information, perform appropriate examination, and achieve correct diagnosis.

A : year 6 medical student

B : collect information, perform examination, and achieve diagnosis

C : Given a boy with increased BUN, Cr

D : appropriate and correct

Enabling Objectives ---At the end of the nephrology block, an intern will be able to ...

1. List the causes of raised BUN and Cr, and oliguria
2. List the causes and clinical manifestations of acute / chronic renal failure
3. Interpret the data of laboratory and image examinations (sonogram/ IVP/ KUB/ VCUG/ renal scan) accurately
4. Given a case of renal failure, collect necessary clinical data to identify reversible factors correctly
5. Identify the cause leading to renal failure based on the scheme of pre-renal, renal, and post-renal diseases

Steps to write “objectives” for a course/ unit:

1. List the content (主標題、副標題)
2. Write terminal objectives followed by enabling Objectives (based on the content)

針對每一個主標題、副標題所包含的內容，列出您所要達到的目標。

3. 在認知 (cognitive), 技術(psychomotor), 及情感 (affective)三方面定義清楚--需達到什麼程度。

Example: Step 1 (list the content)

- DEVELOPMENTAL RENAL PHYSIOLOGY
 - Body composition
 - Renal blood flow
 - Glomerular filtration rate (GFR)
 - Urinary concentrating ability
 - Tubular function
 - Acid / base regulation
- RENAL DISEASE IN CHILDREN
 - Urinary tract infection
 - Congenital GU tract anomalies
 - Hematuria & proteinuria
 - Nephrotic syndrome
 - Renal failure
-

Implementing educational goals

- # Establishment of goals
- # Expression of goals
- # Negotiation of goals

Negotiation of Goals

- # Check out learner acceptance of teacher's goals
- # Ask learners for their goals
- # Agree on goals



Exercise on “defining the learning objectives”



Three steps?

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<https://deer-photo.com.au>