

以學生「學習」為中心的 教學

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University of
Massachusetts
Amherst

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Students = 28,084

undergraduates = 21,812

graduates = 6,272

Faculty = 1,345 (including 142 part time faculty)

Carnegie classification =RU/VH, public university

認養寵物原理



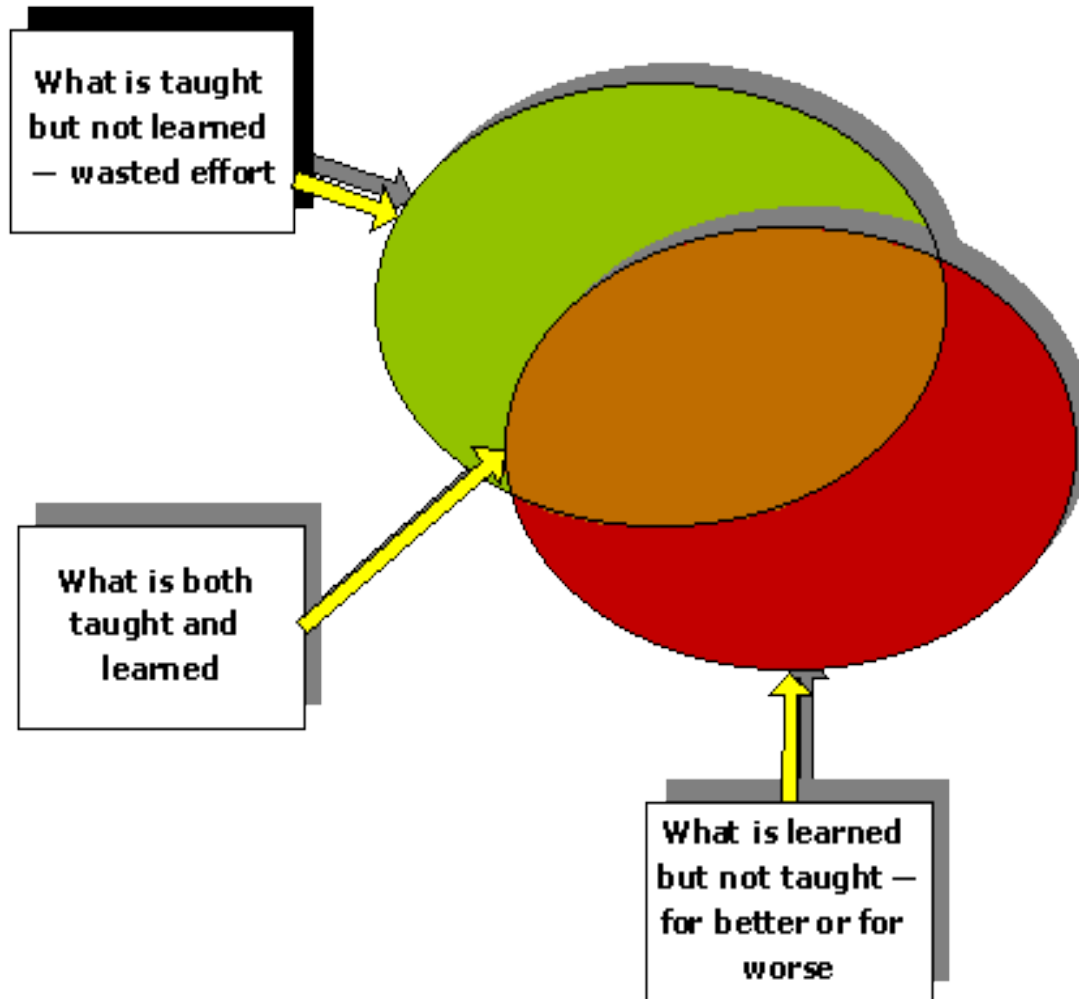
主題

- 何謂「以學生學習為中心的教學」？
- What? Why?
- 教師的角色 - 教師如何教？
- 學生的責任 - 學生怎麼學？
- 怎麼評量？
- 我們怎麼協助教師？
- 個案分享

前提

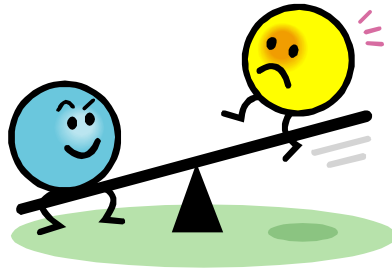
- 教學與學習方式因人而異
- 教學的最終目的是幫助學生學習、成長
- 幫助教師有效教學就是幫助學生有效學習

教與學之間的落差



何謂「以學生學習為中心的教學」？

- 幫助學生連結過去、現在與未來
- 讓學生參與學習與評量
- 學生為自己的學習負責



何謂「以學生學習為中心的教學」？

被動學習

Teacher-centered Learning

Low level of student choice

Student passive

Power is primarily with teacher

主動學習

Student-centered Learning

High level of student choice

Student active

Power primarily with the student



- 這兩者是可以同在一條教學方式的連續線上 (continuum)
- 教師可以在不同的課程階段裡交互運用這兩種教學方式

「以學生學習為中心的教學」的理論基礎

- 學習不能假手於他

Tell me, and I'll listen.

Show me, and I'll understand.

Involve me, and I'll learn

--Lakota (Sioux)



「以學生學習為中心的教學」的理論基礎

Students learn:

10% of what they read

20% of what they hear

30% of what they see and hear

70% of what they discuss with others

80% of what they experience personally

95% of what they teach to someone else

Nolan, 1996

「以學生學習為中心的教學」的理論基礎

- Students are not attentive to what is being said in a lecture 40% of the time
- Students retain 70% of the information in the first ten minutes of a lecture but only 20% in the last ten minutes
- Four months after taking an introductory psychology course, students know only 8% more than students who had never taken the course.

- Meyers and Jones (1993)

「以學生學習為中心的教學」的理論基礎

- 學習是社會化的過程，包括：
 - 情緒
 - 動機
 - 環境

「以學生學習為中心的教學」的理論基礎

最有效的學習情境

- **Comfort** - feel safe and confident in learning
- **Challenges** - exposed to strategies and activities outside their comfort zones
- **Depth** - given more time, more depth with fewer, more complex topics
- **Motivation** – possess self-confidence, self-motivation, perceive short term and long term rewards

以學生學習為中心的教學

(learner-centered teaching)

教師角色的改變



教師角色的改變

What is your role in student learning?

To teach

To help students learn

What is your primary pedagogy?

To cover necessary content

To uncover learning

幫助學生學習

COPE

C	onnection	連結
O	ppportunity	練習
P	articipation	參與
E	valuation	評估

教學方式的改變

輔助者（Just in time teaching）

連結：鼓勵學生從多方面獲取知識，創造不同的學習機會讓學生從不同的層面接觸這些專業知識

練習：幫助學生從學科專業的角度來思考他們所學知識的含意，給學生有應用這些知識的機會

參與：幫助學生將知識內化——將所學成為他們「自己的」知識寶庫的一部分，而不再將老師交給他們的知識視為一堆無生命的資訊。

評估：鼓勵學生接受他們在學習上的責任，幫助學生了解他們是如何學、是為何而學

以學生學習為中心的教學

■ 從課程設計開始

Ask yourself:

What will your students be able to do, know, care about by the end of the course/lesson/unit?

By the end of this modules: you (the student) will be able to:

Recognize the structures of the heart

Critique one of Yeats' poems

The course will cover:

The anatomy of the heart

A selection of Yeats poems

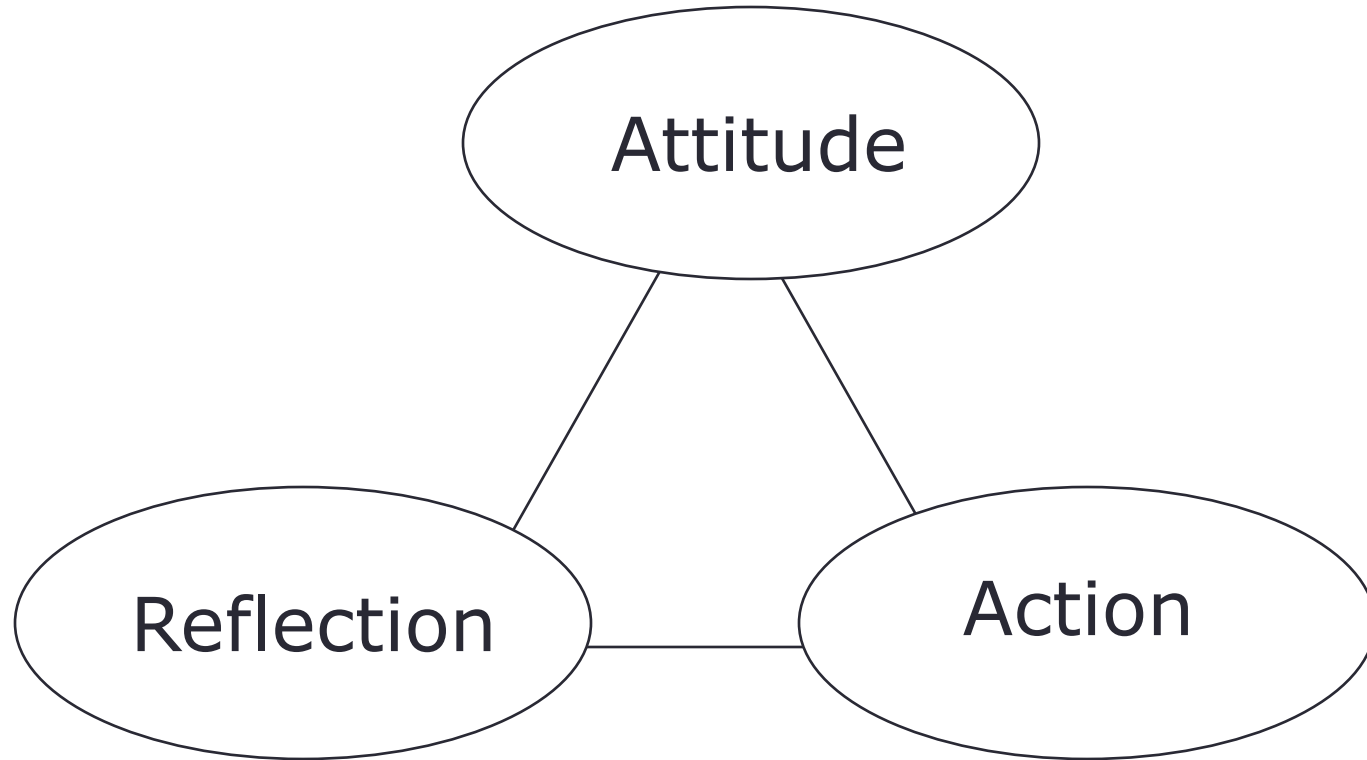
以學生學習為中心的教學

- Give pre- survey, first day ungraded quiz
了解學生學習此課程的背景(能力、動機)
- Identify the course goals, context
提供學生此課程的GPS, e.g., 選修、必修，通識？
- Provide big picture
連連看——給學生一個願景、相關性

以學生學習為中心的學習

(learner-centered learning)

學生學習方式的改變



Adapted and modified from Dee Fink's Teaching Improvement Model, 2003

學生學習方式的改變

Attitude

- Have short term and long term goals
- Motivation
 - Intrinsic values
 - Extrinsic values
- Responsible to own decision

學生學習方式的改變

Action

- Notes taking (study skills)
- Active listening, participation
- Time management
- Seek help when needed

學生學習方式的改變

Reflection

- Learning ability (What is my weakness and strengths?)
- Learning strategies (How do I learn better?)
- How am I doing?
- What do I need to learn to improve my study?
- What do I need to do in order to learn that?

學生學習方式的改變 (cont'd)

- 製造「無界線」的學習環境幫助學生學習新知，例如：學生實習、社區服務，出國交流
- 培養學生的「自知之明」：讓不同學習型態的學生有機會接觸不同的課業內容，引發他們求知的好奇心，發展學生獨立學習的能力
- 鼓勵學生彼此之間的互動
- 鼓勵學生參與課程評量的設計與討論

以學生學習為中心的評量

(learner-centered assessment)

評量即學習

學生學習評量的改變

- Minute Paper -- first or last 5 minutes of the class
- “Cheat Sheets” for each new lesson
- Small group discussions
- Online discussion (blog, wiki)
- Reflections -- 3” x 5” index card for the first or last five minutes of the class
- Students develop a small group exercise, lab, or simulation every week
- Pyramid testing

學生學習成效評量方式的改變

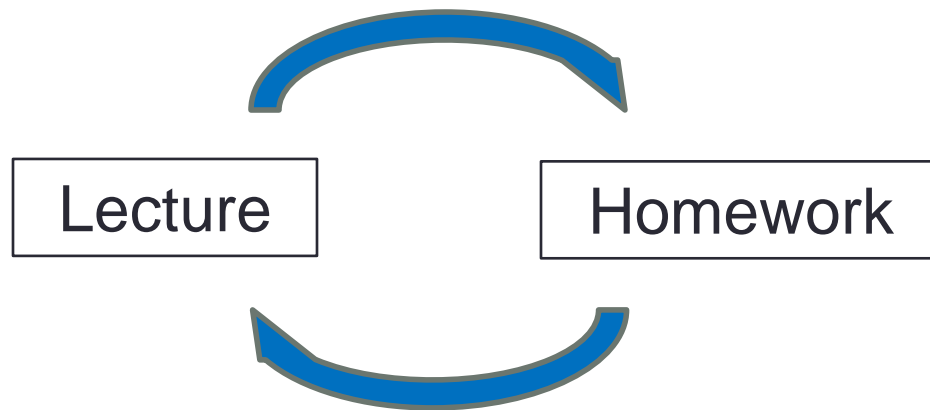
- 多元化的評量
- 多運用評估表格(rubric)、portfolio
- 使用不定期(periodic)的評量，給予學生及時的 (timely)、期中性(formative)的回饋
- 學生自評及互評

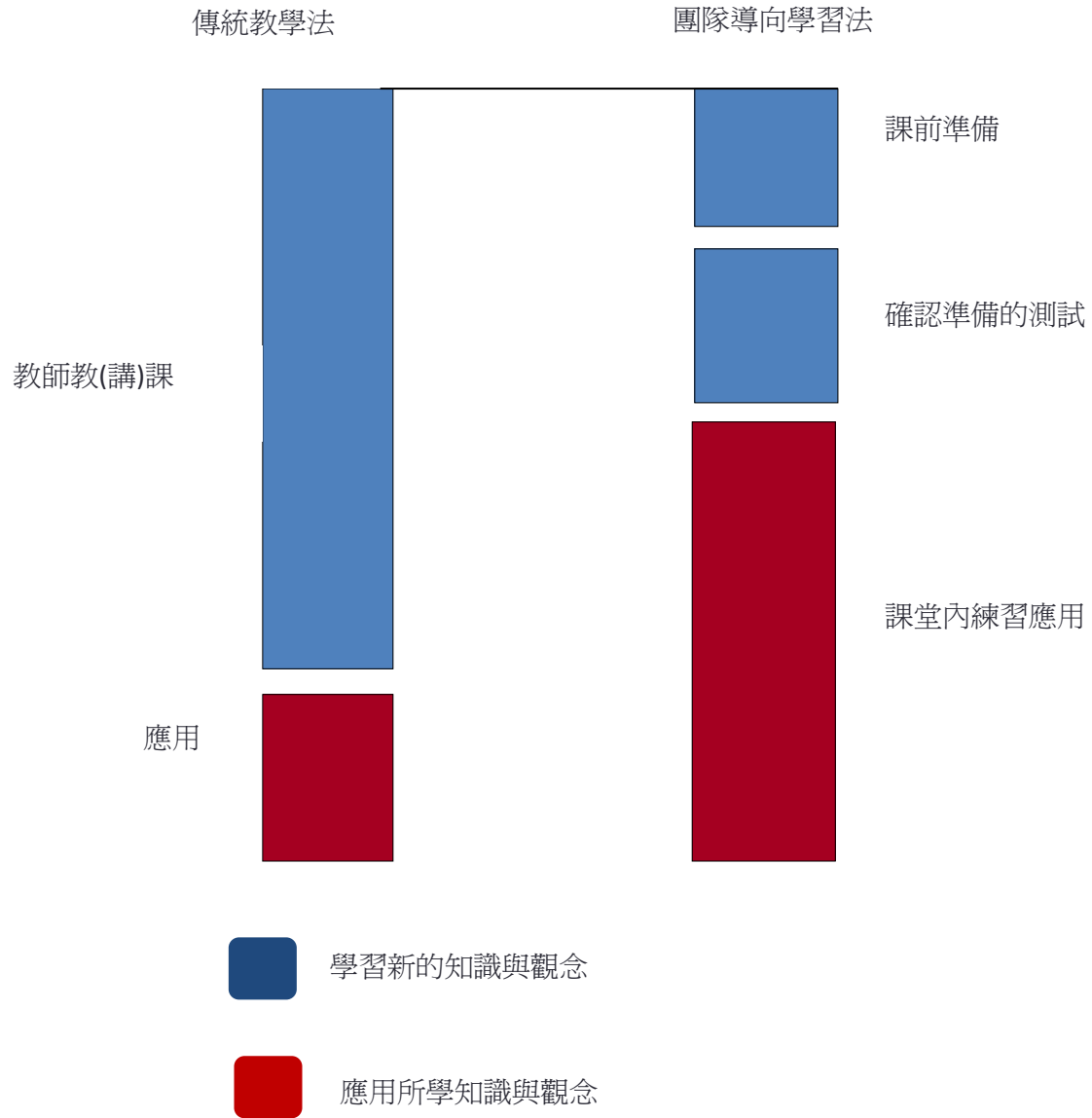
以學生學習為中心的實例

(learner-centered teaching, learning and assessment)

改變學生學習、教師教學、評量方式

- Team-Based learning model
- Flipped classroom (or inverted instruction)





「以學生學習為中心」的效益與挑戰

- Activating group developed better study skills and understanding, but were slower in their study initially ([Lonka and Ahola 1995](#)).
- Students had increased participation, motivation and grades in a first year information technology course ([Hall and Saunders](#)1994).

「以學生學習為中心」的效益與挑戰

- 94% of the students would recommend it to others over the more conventional approach ([Hall and Saunders 1997](#)).
- There was more respect for the student in this approach, that it was more interesting, exciting, and it boosted their confidence ([Lea et al. 2003](#)).

「以學生學習為中心」的效益與挑戰

- In some cases, overemphasize “individual learners”
- Recourses needed to implement
- Cultural and educational systems different
- Students’ hold belief
- Students’ lack of mutuality

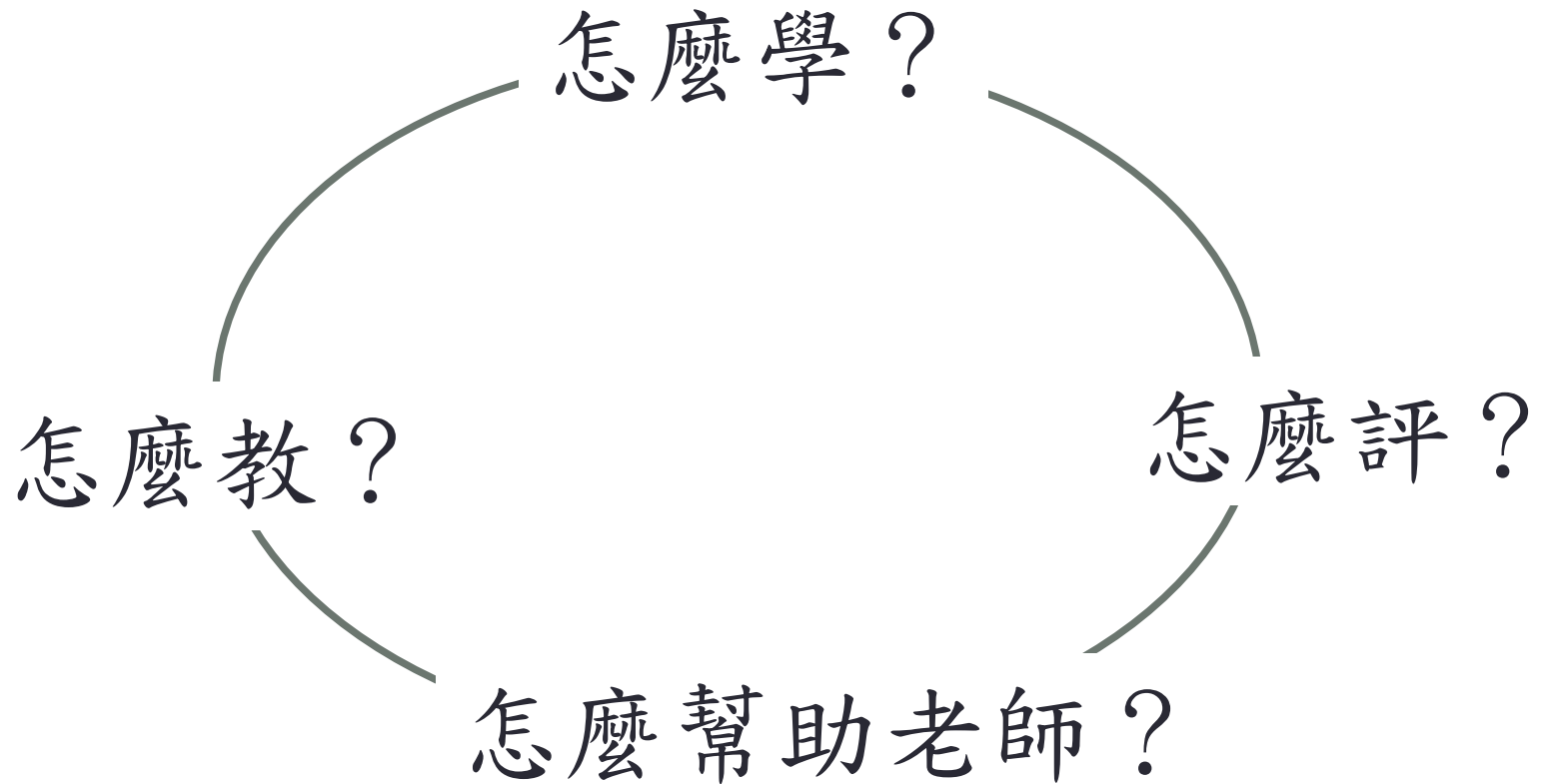
怎麼協助教師？

- 教師發展中心的角色
 - elicit faculty buy-in, support, resources
- 從個別的教師著手
- 協助教師掌握基本的教學技巧

怎麼協助教師？

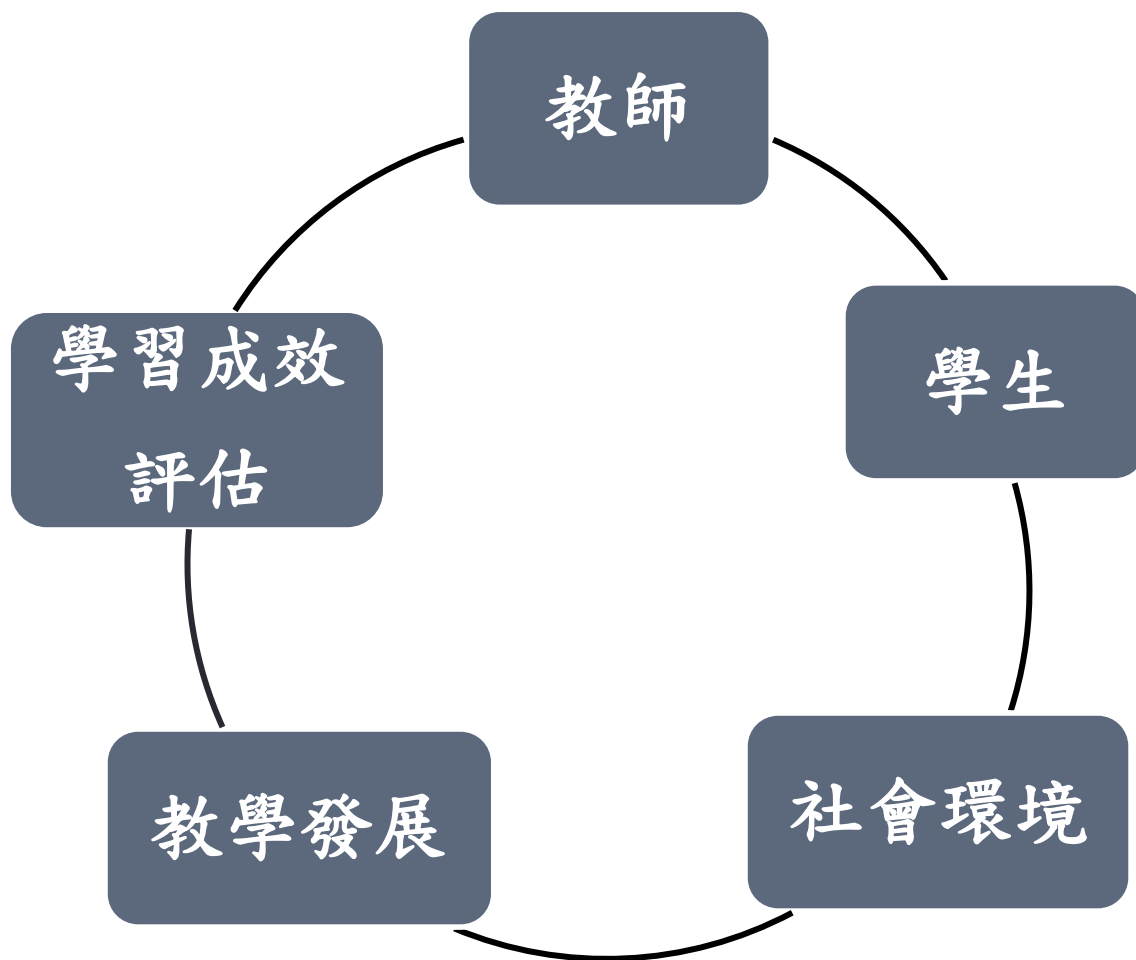
- 教師發展中心可以透過獎勵優良「學生學習為中心」教學
 - 讓教師們有機會相互觀摩、相互激勵，設計新的教學方法
- 透過不同類型的全年性的成長團體，將不同生涯階段的教師們集結在一起，在他們不同的角色上，都有來自教師發展中心和他們同儕的協助支援
- 校外教育基金會、學科專業組織，和高等教育協會也可以把重心放在協助教師教學發展機會上，由內至外，讓它蔚為一股風氣。

個案分享





以學生學習為中心的教學



提升教師的教學品質



提升大學教育的品質



Questions?

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References:

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