國立臺南大學

高等教育深耕計畫

培養學生自學與多元能力的

PBL 教學實務講座



時間：108 年 5 月 27 日(一)14:00-17:00

地點：誠正大樓 B307 會議室

講師：張幼珍老師(元智大學化學工程與材料科學系教授)

承辦單位：國立臺南大學教務處

【創新教學】 P^5BL

培養學生自學與多元能力的 PBL教學實務

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P

Stands for

Problem

Project

Product

Process

People

Problem-Based Learning (PBL)

Problem Project Process People Product

- Dr. Don Woods: "*Motivating students is an important first step in teaching.*"
- Dr. Rosemary Leary : "***Problems themselves appeal to the human desire for resolution and harmony...***"
- Dr. Woods' research also shows by using PBL, **students develop skills that serve them well in future learning and in the workplace**.
- A broad definition of PBL (Dr. Woods) : "***PBL is any learning environment in which the problem drives the learning.***"

http://cll.mcmaster.ca/resources/pbl.html

PBL問題設計

- 解決問題不是PBL最重要的目的
- 透過解決問題來學習如何自學新知(how what)與技術(know how)才是PBL的真正目的。
- 因此，問題設計之初，請老師們先想想要學生透過這個問題學習到什麼細項新知(how what)與技術(know how)。
- 譬如，中文或英文投影片製作的能力、撰寫3分鐘英文演講稿的能力、錄製投影片英文演講的能力、英文專利搜尋的能力等、閱讀英文科技資訊的能力、搜尋英文資訊的能力等等。

Sunday, May 19, 2019





University of Illinois professor emeritus of psychology Ed Diener, who also is a senior scientist for the Gallup Organization, found that the fulfillment of basic needs leads people to place themselves higher on a scale of life satisfaction, while pursuing higher social and self-actualization needs is more closely associated with positive feelings and enjoying life, even when basic needs are lacking. | Photo by L. Brian Stauffer

Autonomy can be defined as the ability to make choices according to one's own free will.

PBL課程設計理念

Basic Needs

Money
Security
Convenience
Satisfaction
Wealth
Possessions



Higher Needs

Trust
Respect
Learning
Autonomy
Creativity
Community
Well-being

（身心）健康、幸福感

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PBL 7-Steps

S1. 閱讀(原始)問題，進行組內討論、思考與提出衍生問題

S2. 回想與分享相關(先前)知識與生活經驗。查詢術語。

S3. 根據S1+S2，提出問題相關假設與機制。

S4. 根據S1~S3，決定學習議題(新知)。

S5. 分工尋找S4學習議題相關資料與決定議題的學習順序。

S6. 應用S5自學新知在原始問題上。

S7. 回顧與總結學習到的新知與能力、自評與評量組員貢獻度、回饋全組合作學習表現。

P May Stand for Problem, Project, Process, Products, etc.

Ill-Structured Problems, Student-Centered Learning, Cooperative Learning.
(合作學習)