Making Material Clear

1.Contextualizing Material 教材的背景介紹

Using existing knowledge to learn something new helps make material clear and accessible. As McKeachie (2002) states, relevant knowledge strengthens new learning by generating meaningful connections to new information. Learners typically use prior knowledge by creating either direct relations, in which they relate what's known to what they're trying to learn, such as comparing and contrasting the causes of two wars; or analogical relations, in which they use analogies to help relate familiar and new concepts that share some key characteristics but are different in other ways, such as using a post office to explain aspects of computer storage.

Translation

利用存在的知識去學些新的東西，有助於使教材更清楚且平易近人。如 McKeachie (2002)提到的，相關知識假如與新知識產生有意義的關聯，將可以強化新的學習，學習者典型的就是創造直接關係去運用先前知識，他們把已經知道得以及想要學的做關聯，像是比較或對照兩場戰爭的起因；或是相似關係，讓他們使用類似的方法去關聯熟悉及新的觀念去分享些關鍵特質，但是使用不同的方法，像是站在郵局的角度去解釋電腦倉儲的情形。

Davis (1993) shares additional strategies for helping students contextualize new information:

Allow for the fact that different students learn, think and process information in different ways. Students vary in how they learn and how long they take to learn, and they don't make uniform progress.

Let students know what they are expected to learn. Emphasize key course concepts and important points in class sessions.

Give students a framework within which to fit new facts. Use outlines, study questions or study guides to provide a conceptual framework or structure for concepts.

Present material in ways meaningful to students. Students are more likely to understand and remember new material if it's already relevant, meaningful or important to them.

Limit the amount of information you present. Students can absorb only three or four new points in a single presentation.

Stress concepts, not facts. Too many details overwhelm students; broad concepts are more meaningful and more easily understood and remembered.

Translation

Davis(1993)分享了更多幫助學生前後對照新資訊的策略：

允許不同的學生使用不同的方法去學習、思考以及處理資訊，學生會因為他們如何學習以及多久的學習時間有所不同，且他們不用一致的程序。

讓學生知道他們被期望學到什麼，在課堂中強調關鍵課程觀念以及重點。

給學生一個符合新事實的框架,利用大綱或是問題閱讀抑或是導讀去提供一個概念性框架或是觀念的結構

提供給學生教材的方式是對學生有意義的,學生會較願意去了解及記住新的教材的情形是,那些教材已經跟先前有相關、有意義或是對他們來說很重要的教材

限制你報告的資訊數量,學生在一個報告上只能吸收三到四個新 IDEA

學生的觀念不是事實,太多的細節使學生難以應付;廣泛的觀念會更有意義以及更容易理解跟記住

2.Question Types

Different questions have different purposes. Understanding the different types

and their uses can be a big help in structuring and leading discussions and lessons.

Translation

不同的問題有不同的目的，了解不同類型的問題以及它們的功用可以大大的幫助於建構及領導課程及討論

Discussion starters get students talking. Examples: "Why do you think the AB Company filed for bankruptcy?" "What's the issue this case poses?"

Translation

討論開始者

使學生開始談論，例；"你認位為何 AB 公司歸類於破產?""這個 CASE 需要注意的問題是?"

Probing and challenging questions ask students to examine specific areas of a problem or situation: "What did the data and statistical report suggest?" "Did the president respond appropriately to the situation?"

Translation

探查性及挑戰性的問題

檢驗學生對特定領域的問題或是解法"這些數據及統計結果代表什麼?""總統有很得體的回應現狀問題嗎"

Connecting questions ask students to make links between old and new information: "What similarities does this case share with a previous one?" "How does this outcome support the theory found in the textbook?"

Translation

連結問題

令學生連結連結舊聞跟新知："這個 CASE 跟先前的有什麼相似性?""這個結果怎樣支持課本上讀到的原理?"

Predictive and hypothetical questions help students apply what they learn to other situations: "What will happen if we boil the solution?" "Imagine that a primary value for this society was competition—how would that change things in the life of the village?"

Translation

預測及假設性的問題

幫助學生將學到的應用到其他情況；"如果沸騰結果會怎樣?""想像主要的社會價值觀是競爭的---村落的生活會怎樣的改變?"

Analytical and evaluative questions help students make informed judgments about the subject matter: "Can you rank the designs based on how aesthetically appealing they are?" "Which decision by the president was most effective?"

Translation

分析及衡量問題

幫助學生建立有根據的結論於課題上；"能否就美學上的吸引度評定設計等級?""總統的哪個決定是最有效的?"

Summary questions help students articulate key points of a discussion or lesson: "What are the main points of this case so far?" "Can you summarize decisions the committee made their first year?" (adapted from Meyers and Jones 1993).

Translation

總結問題

幫助學生表現一堂課程或是討論的關鍵點"至今為止的主要觀點是什麼?""你能總結委員會今年做的決定嗎?"

3.Questioning Techniques

Bob Powers (1992) identifies ways instructors can ask and respond to questions effectively:

- Use open questions to solicit responses (see right).

- Use closed questions (see right) to end discussions.

- Provide correct, clear answers to students' questions.

- If you are unable to answer a question, find the answer and report it back to students.

- Answer questions nondefensively.

- Occasionally refer questions back to students.

- Sometimes guide students to reach answers themselves.

- Remember: Don't ask a question, then answer it yourself.

Translation

Bob Powers 提出指導者可有效提問及回應的方法

使用開放性的問題去企求回應

使用封閉性的問題去終結討論

為學生問題提供正確清楚的答案

如果無法回答問題,找到答案後回答給學生

不保守的回答問題

偶爾將問題回問學生

有時候請學生自己尋求答案

記住;不要自己問問題然後又回答