## 認知／Cognition：第二語言學習策略之理論基礎

莊三慧教授

## 《概論》

在這個課程中，我們將以認知的角度來看語言學習及第二語言習得
近代理論模式（認知結構）
我們如何接收及處理訊息的理論議題（語言認知）
閱讀並回顧心理／認知語言學的研究文獻

## 《主題》

1．注意
2．短期記億
3．長期記億
4．認知負擔理論
5．後設認知及有意義的學習
6．心理專注 \＆心智努力
7．自我效能
8．學習者的控制
什麼是課堂裡學習語言最不可或缺的因素？
動機？語言能力？努力學習？
提示 1：從學習／學習者的觀點
提示 2：父母常歸各孩子所缺少的
注意 vs．意識
有意識或無意識學習都可能存在
成人第二語言習得：有意識學習
兒童第一語言學習：無意識學習
很難截然二分
然而，學習必定要有注意力
無意識有注意力
有意識有注意力
有意識無注意力
無意識無注意力

注意
在普遍／核心語法中不重視
普遍／核心語法，不重語言輸入

在第二語言習得及認知模式中極爲強調
注重輸入的觀點，頻率，連續性及注意增加／減緩的因素。
動機 $\rightarrow$ 注意
動機 $\rightarrow$ 注意 $\rightarrow$ 語言學習成效
動機 $\rightarrow$ 注意 + 策略運用 $\rightarrow$ 語言學習成效
動機強 $\rightarrow$ 注意集中 + 策略運用多 $\rightarrow$ 學習成效佳
動機 $\rightarrow$ 注意

Motive vs．Motivation
Motive：something（as a need or desire）that causes a person to act （webster）
Incentive：bonus
Inducement：magazine gift
Spur：out of fear
Goad：against one＇s will
認知理論：介紹
有限的認知能力：質與量皆有限。
真實生活：說話 vs．寫作
研究實驗：
在荷蘭語語序上的注意（1984 Hulstijn and Hulstijn）
英文第三人稱加 s，es
Tarone（1996）
社會環境的重要性，而非單純的機械式的語言處理。

## 認知系統

短期記意包含四項組成成分
1．視空間系統
2．語音迴路
3．事件記億：融合既存與新資訊，處理資訊的有限能力：7＋／－2 個意元／分段 Chunk 意元／分段＝任何刺激物，如字母，詞彙，數字，現象

## 4．中樞執行系統（協調其他三個成分）

短期記憶：視空間系統

- 視覺短期記憶
- 接收視覺資訊
- 只能留存記憶幾秒鐘
- 每秒最多能接收 50,000 個成分
- 中樞處理系統選擇小部分的視覺成分並移動到視空間系統做解譯及複誦
- 語音迴路（聽覺的短期記憶）
- 接收聽覺資訊
- 只能留存資訊幾秒鐘，除非經過複誦
- 每秒鐘所能接收的成分是無限的
- 中樞處理系統選擇部分並移動到語音迴路做解譯及複誦

短期記憶：中樞處理系統

- 中樞處理負責組織及整合傳遞到其他短期記憶中
- 聽覺或視覺刺激
- 語音迴路，視空間系統，事件記憶
- 長期記憶

中樞處理系統的四個功能是
1．選擇
2．提取
3．組織
4．整合

## 長期記憶

陳述性知識：事實，概念，規則
程序性知識：自動化
基模發展（中文學習 聲音，漢字）

如何將資訊送到長期記憶
1．意元／分段集組
2．精細加工
3．熟能生巧

認知負載理論：介紹
基於兩項假設

負載量有限 $=$ 對學習不利的影響
負載＝短時間內短期記憶所能負擔的心理活動
三種認知負載類型
1．內在負載
甲，與學習的材料有關
乙，負載包含處理，理解詮釋及儲存新知識
丙，中樞處理系統，後設認知，短期記憶（事件記憶），視空間短期記憶及長期記憶全都必須接受負載的控制
丁，內在的認知負載對學習有正面影響
戊，
2．外在認知負載
甲，處理所有不必要的刺激物
乙，不必要的聲音
丙，在聽覺與視覺的短期記憶中產生超載
丁，外在的認知負載對學習有負面影響

3．相關增生負載
甲，增生認知負載
乙，增生的負載爲教學設計所影響
丙，資訊呈現給學習者的方式
丁，爲了學習必需的活動消耗
戊，增生認知負載對學習有負面影響

## 認知負載理論

- 所有的認知負載＝內在＋增生＋外在
- 認知負載過高可由一個或多個負載或超載而產生
- 內在負載過高：由學習的內容而來
- 增生負載過高：由學習活動的設計而來
- 外在負載過高：由不必要的資訊或刺激物的總合而來

認知負載理論：應用

- 因學習材料相互依賴（內在負載）
- 元素互動性高＝高認知負載
- 課程內的材料和互動只有完全處理過後才可能被完全理解
- 元素互動性低＝低認知負載
- 課程元素可以單獨學習
- 元素間只有少許的直接互動
- 元素之間的互動相關是內在認知負載的主要內容
- 教材的設計／順序－－影響元素互動
- 語言學習屬於元素互動性高＝高認知負載
- 將教材材料分割成較小的片段才能降低內在負載，例子包含：學前訓練，部分任務訓練
－吸引人的多媒體內容－一一種特別類型的外在負載，它引起高度興趣但並非重要的元素或教材
- 影響：使短期記憶保存減少並間接影響材料的保存及遷移
- 激發理論認爲引人興趣的能多媒體內容增進學習，也就是激發較多的注意力進而產生較好的認知處理


## 語言學習策略的特質

O 溝通能力爲主要目標
0 教師的新角色
O 教師角色的改變
○ 該不該教導學習策略
○ 怎麼教導學習策略

O 直接策略簡介
1）記憶策略
2）認知策略
3）補償策略

## Strategy Inventory for Language Learning Version 5.1 (c)R. Oxford. 1989

1. Never or almost never true of me
2. Generally not true of me
3. Somewhat true of me
4. Generally true of me
5. Always or almost always true of me
(Write answers on Worksheet)
Part A
When learning a new word ...
6. I create associations between new material and what I already know.
7. I put the new word in a sentence so I can remember it.
8. I place the new word m a group with other words that are similar m some way.
(for example. words related to clothing. or feminine nouns).
9. I associate the sound of the new word with the sound of a familiar word.
10. I use rhyming to remember it.
11. I remember the word by making a clear mental image of it or by drawing a picture.
12. visualize the spelling of the new word in my mind.
13. I use a combination of sounds and images to remember the new word.
14. I list all the other words I know that are related to the new word and draw lines to show relationships.
15. I remember where the new word is located on the page. or where I first saw or heard it.
16. I use flashcards with the new word on one side and the definition or other information on the other.
17. I physically act out the new word.

When learning new material...
13. I review often.
14. I schedule my reviewing so that the review sessions are initially close together in time and gradually become more widely spread apart
15. I go back to refresh my memory of things I learned much earlier.

## Part B

16. I say or write new expressions repeatedly to practice them.
17. I imitate the way native speakers talk.
18. I read a story or dialogue several times until I can understand it.
19. I revise what I write in the new language to improve my writing.
20. I practice the sounds or alphabet of the new language.
21. I use idioms or other routines in the new language.
22. I use familiar words in different combinations to make new sentences.
23. I initiate conversations in the new language.
24. I watch TV shows or movies or listen to the radio in the new language.
25. I try to think in the new language.
26. I attend and participate in out-of-class events where the new language is spoken.
27. I read for pleasure in the new language.
28. I write personal notes, messages, letters. or reports in the new language.
29. I skim the reading passage first to get the main idea, then I go back and read it more carefully.
30. I seek specific details in what I hear or read.
31. I use reference materials such as glossaries or dictionaries $u$, help me use the new language.
32. I take notes in class in the new language.
33. I make summaries of new language material.
34. I apply general rules to new situations when using the language.
35. I find the meaning of a word by dividing the word into pans which I understand.
36. I look for similarities and contrasts between the new language and my own.
37. I try to understand what I have heard or read withal translating it word-for-word into my own language.
38. I am cautious about transferring words or concepts directly from my language to the new language.
39. I look for patterns in the new language.
40. I develop my own understanding of how the language works. even if sometimes I have to revise my understanding based on new information.

## Part C

41. When I do not understand all the words I read or hear, I guess the general meaning by using any clue I can find. for example. clues from the context or situation.
42. I read without looking up every unfamiliar word.
43. In a conversation I anticipate what the other person is going to say based on what has been said so far.
44. If I am speaking and cannot think of the right expression. I use gestures or switch back to my own language momentarily.
45. I ask the other person to tell me the right word ill cannot think of it in a conversation.
46. When I cannot think of the correct expression to say or write. I find a different way to express the idea; for example. I use a synonym or describe the idea.
47. I make up new words if I do not know the night ones.
48. I direct the conversation to a topic for which I know the words.

## Part D

49. I preview the language lesson to get a general idea of what it is about, how it is organized, and how it relates to what I already know.
50. When someone is speaking the new language. I try to concentrate on what the person is saying and put unrelated topics out of my mind.
51. I decide in advance to pay special attention to specific language aspects; for example. I focus the way native speakers pronounce certain sounds.
52. I try to find out all I can about how to be a better language learner by reading books or articles or by talking with others about how to learn.
53. I arrange my schedule to study and practice the new language consistently, not just when there is the pressure of a rest.
54. I arrange my physical environment to promote learning: for instance. I find a quiet comfortable place to review.
55. I organize my language notebook to record important language information.
56. I plan my goals for language learning. for instance. how proficient I want to become or how I might want to use the language in the long run.
57. I plan what I am going to accomplish in language learning each day or each week. 58. I prepare for an upcoming language task (such as giving a talk in the new language) by considering the nature of the task, what I have to know, and my current language skills.
58. I clearly identify the purpose of the language activity).; for instance. in a listening task I might need to listen for the general idea or for specific fact.
59. I take responsibility for finding opportunities to practice the new language.
60. I actively look for people with whom I can speak the new language.
61. I try to notice my language errors and find out the reasons for them.
62. I learn from my mistakes in using the new language.
63. I evaluate the general progress I have made in learning the language.

## Part E

65. I try to relax whenever I feel anxious about using the new language.
66. I make encouraging statements to myself so that I will continue to try hard and do my best in language learning.
67. I actively encourage myself to take wise risks in language learning. such as guessing meanings or trying to speak, even though I might make some mistakes.
68. I give myself a tangible reward when I have done something well in my language learning.
69. I pay attention to physical signs or stress that might affect my language learning. 70. I keep a private diary or journal where I write my feelings about language learning.
70. I talk to someone I trust about my attitudes and feelings concerning the language learning process.

## Part F

72. If I do not understand, I ask the speaker to slow. down, repeat, or clarify what was said
73. I ask other people to verify that I have understood or said something correctly.
74. I ask other people to correct my pronunciation.
75. I work with other language learners to practice, review, or share information.
76. I have a regular language learning partner.
77. When I am talking with a native speaker. I try to let him or her know when I need help.
78. In conversation with others in the new language. I ask questions in order to be as involved as possible and to show I am interested.
79. I try to learn about the culture or the place where the new language is spoken.
80. I pay close attention to the thoughts and feelings of other people with whom I interact in the new language.
