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# Ch. 3 – Teaching the use of Learning Strategies

Williams, Carl B. (2009). *No limits: A practical guide for teaching deaf and hard of hearing students.*  
Butte Publications, Hillsboro OR

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- Students need to learn how to learn
    - Donovan, M.S., Bransford, J.D., & Pellegrino, J.W. (Eds.) (1999a). *How people learn: Bridging research and practice – Chapter 2: Key Findings*. National Academy Press, Washington, DC. Retrieved on June 2, 2004 from:  
<http://www.nap.edu/html/howpeople2/ch2.html>
    - critical feature of effective teaching...elicits from and builds on students existing understanding of the subject matter to be taught...this is true for all students of all ages

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- how “experts” (in a given subject) differ from “novices”...experts:
    - draw upon a “richly structured” information base
    - use existing concepts to guide their understanding of new information
    - conceptual knowledge allow them to “...extract a level of meaning from information that is now apparent to novices.”
  - ”...experts...monitor their own understanding carefully, making note of when additional information was required.” ...this is exactly what students need to learn to do

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- ...K-12 education...students began as “novices”...teachers assist students to gain a more formal/deeper understanding of the targeted information....this in turn, helps students develop a conceptual framework of the subject matter.
  - ...“A key finding in the learning literature is that organizing information into a conceptual framework allows for greater transfer (learning).”

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- ...implications for teaching: teachers must...
    - identify and build on the preexisting understanding that students bring to school
    - create classroom contexts via which student's thinking can be "revealed"
    - use formative assessment to make student's thinking visible to "...themselves, their peers and teachers."
    - teach fewer topics, and provide more depth so that many examples of the same concepts can provide a "foundation for factual knowledge."
    - have an in depth understanding of the content that they are teaching
    - "...develop in their students the ability to learn independently."
  - ...research indicates that when the above teaching principles are followed, student performance improves

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- ...student learning is enhanced when they understand why, when and how the targeted information is relevant + when the learning occurs within problem solving activities
  - ...designing effective classroom learning environments – four key characteristics:
    - learner centered
    - knowledge centered ...what is taught...why it is taught...and what competency in the information “...looks like.”
      - “Many curricula fail to support learning with understanding because they present too many disconnected facts in too short a time...”
    - assessment centered ...use of formative assessments to both inform and guide the teaching and learning...helps the students to understand and track their own learning
    - context centered ...carried out within the context of a community of learners...both in and outside of the classroom...where the targeted knowledge and skills have relevancy and are valued and used

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## ■ Williams text

- much of the academic difficulty observed in schools should be interpreted as relating to what the children do not do rather than what they cannot do.” (p. 50)
  - ...students can do more than they are usually challenged to do in school
- Types of Learning Strategies
  - Metacognitive
    - = “procedures that facilitate planning, monitoring, and evaluating one’s learning.” (p. 51)
  - Cognitive
    - = procedures for activating prior knowledge, taking notes, summarizing, classifying, and imagery

# ■ Examples of Metacognitive Strategies

## □ TP Structure Framework (p. 53)

- “T” = textbook
  - e.g., chapter headings, captions w/ pictures & graphs, and index
- “P” = paragraph
  - e.g., introductory sentences, key words, conclusions
- ...designed as a visual reminder of how the student can structure their learning previewing the text to:
  - Activate prior knowledge re. the topic of the text
  - Establish questions and predictions concerning the information within the text
  - Actively work to link the text’s new information to their prior knowledge
- = a strategy students can be taught to gain information from printed material

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## ■ Examples of Metacognitive Strategies (cont.)

### □ Four Square

- = strategy students can be taught to “organize their thoughts for writing compositions.” (p. 53)
- ...used to develop “five sentence paragraphs,” i.e.,
  - 1 Opening sentence
  - 2-4 Supporting detail sentences
  - 5 Concluding sentence

### □ K-W-L Charts

- What I know.
- What I want to learn.
- What I learned.

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- **Examples of Metacognitive Strategies (cont.)**
    - **RCRC Active Reading Strategy**
      - **“Read a small part of the material once or twice.**
      - **Cover the material.**
      - **Retell yourself what you read.**
      - **Check to see if you remembered correctly.” (p. 55)**

## ■ Cognitive Strategies

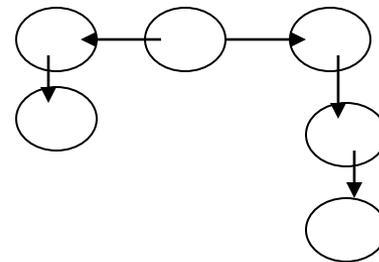
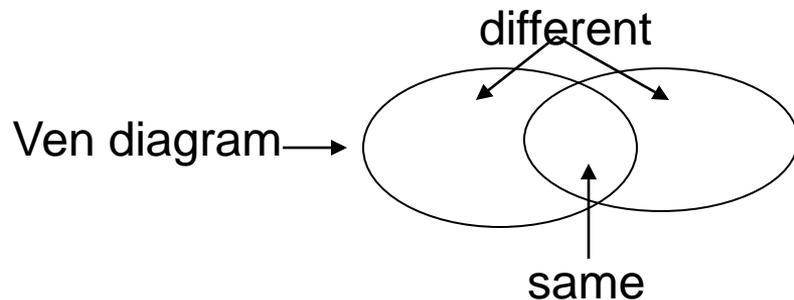
### □ Prior Knowledge Sheet (p. 57)

- What I already know about \_\_\_\_\_.
- Subject \_\_\_\_\_
- Date \_\_\_\_\_
- Words you have heard that re related to this topic  
\_\_\_\_\_
- What you think you may learn in this unit of study  
\_\_\_\_\_

- ...all of these strategies are designed to get students to:
  - Link the new information with prior information
  - Actively monitor their learning by checking for comprehension
  - Organizing their learning into scripts

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- Cognitive Strategies (cont.)
    - Summarizing
    - Classifying
    - Concept Sorts
    - Imagery

- Marzano, R., Pickering, D., & Pollock, J. (2001). Classroom instruction that works. ASCD: Alexandria, VA.
  - Empirically supported instructional strategies that enhance teaching and learning.
  - Listed in order of “power,” i.e., effect upon academic performance
    - 1. Identifying similarities and differences, e.g., comparing & classifying as demonstrated by Ven diagrams or graphic organizers



Graphic Organizer

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- Empirically supported inst. Strat. (cont.)
    - 2. Summarizing, Note taking, Outlining
      - E.g., rules for...
        - Delete trivial material that is unnecessary to understanding
        - Delete redundant information
        - Put information into your own words
        - Develop topical/summarizing sentences
      - Note: this can be done via text, or graphics, e.g., Inspiration/Kidspiration
    - 3. Reinforcing Effort & Providing Recognition
      - Recognizing, calling attention to student behaviors that serve to enhance learning = what + why important

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- Empirically supported inst. Strat. (cont.)
    - 4. Homework & Practice
      - Linking learning with living
      - Knowing when and how to use ‘x’ knowledge or skill
      - Repeating until ‘x’ becomes a habit
    - 5. Nonlinguistic Representations
      - i.e., not relying solely upon words to convey information
        - For more information concerning this strategy, see the 10/7/09 presentation entitled “[Challenges – What do we know about the use of technology to enhance learning.ppt](#)” that presents the work of R. Mayer

# ■ Empirically supported inst. Strat. (cont.)

## □ 6. Cooperative Learning

### ■ Five critical components: (pp. 85-86)

#### □ “Positive interdependence

- = sink or swim together

#### □ Face-to-face promotive interactions

- = helping each other learn & applauding success

#### □ Individual & Group Accountability

- = each individual must contribute to successfully meet the group goals

#### □ Interpersonal & Small Group Skills

- = communication, trust, leadership, decision making, conflict resolution

#### □ Group Processing

- = reflecting on how well the group is working”

**Note:** concept of topical knowledge/interest vs. competency grouping

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- Empirically supported inst. Strat. (cont.)
    - 7. Setting Objectives & Providing Feedback
      - Obj:
        - = inst. obj. narrow and focus student learning
        - = obj. should be developed based on student's topical interests and experiential background
      - Providing Feedback
        - Tell students what they are doing that is correct and/or incorrect and why it is helpful, or not helpful to what they are supposed to be doing
        - Provide the feedback in close approximation of the targeted behavior
        - Encourage students to reflect upon their own behavior

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- Empirically supported inst. Strat. (cont.)
    - 8. Generating & Testing Hypothesis
      - Students developing ideas/explanations, then test the accuracy of their ideas/explanations
        - = making predictions and then seeing if they were correct
    - 9. Cues, Questions & Advanced Organizers
      - Cues = what to focus upon
        - Verbal and nonverbal cues given by teachers and texts
      - Questions = that focus on the “why” vs. simply “what” or “when”
      - Advanced Organizers = verbal outlines & visual representations