

## RESOURCE

Bennett, Barrie & Rolheiser, Carol (2001). *Beyond Monet: The Artful Science of Instructional Integration*. Ajax, ON: Bookation, p. 210.

CONCEPT ATTAINMENT:

## **AN INDUCTIVE THINKING STRATEGY**

### **WHAT IT IS**

Concept Attainment is an inductive thinking strategy that encourages students to look for patterns in data sets and to formulate and test hypotheses based on those patterns.

## **PROCESS**

Students compare a set of examples and non-examples to generate a hypothesis about a pattern of critical attributes. Data Sets can consist of words, images, sounds, movements, and so on. Students then use additional examples and non-examples to test and modify their hypothesis.

## **BENEFITS**

- Students clarify and deepen their conceptual understanding.
- Students engage in productive talk to co-construct understanding.
- Students practise cognitive processes, such as pattern identification, comparing and contrasting.

## **CHALLENGE**

Creating effective Data Sets

## **EXAMPLE**

- Provide students with a sampling of texts, e.g., news reports, which students examine for patterns of critical attributes. Non-examples would be texts lacking those attributes, e.g., free verse or instructions.

## **VARIATIONS**

- Students (1) sort data into examples or non-examples; (2) focus on examples and then non-examples; (3) focus on one example and non-example pair at a time.
- Adapt into a twenty questions game.
- Challenge pairs of students to create Concept Attainment Data Sets for their peers as a review strategy.

- Has potential application for literacy across subject areas, modes of expression, texts, and new technologies
- Encourages students to be active readers and questioners
- Applies critical thinking skills, deepens comprehension and fosters integrative thinking
- Impels the readers to interact with the text
- Encourages students to research language
- Respects the literacy practices of minority cultures
- Develops a sense of agency, control over text, voice, and identity
- Compels learners to social action and is potentially empowering

## BENEFITS

### CRITICAL LITERACY:

## READING BENEATH, BEHIND AND BEYOND THE TEXT #1

### WHAT IT IS

Critical Literacy refers to a **stance one takes towards texts**. Critical Literacy engages students in asking questions that “problematize,” or grapple with the complexity of, texts—all oral, print and electronic texts, including brochures, video games, websites, news magazines, textbooks—and even *this card*.

- Being critically literate can be traced to the work of Paulo Freire, who taught adult learners to “read the word” in order to “read the world.”
- Being critically literate means understanding that the author provides only one of many ways to think about the topic, and seeking alternative explanations.
- The critically literate reader, viewer or listener examines the attitudes, dispositions, values, and beliefs that readers bring to a text and that shape the way they read and perceive it.
- The critically literate reader, viewer or listener also examines the way a text works to influence the reader, the assumptions and beliefs that underlie a text and the perspectives and voices that are missing or silenced.
- Critical literacy positions and moves students to act in the world on behalf of fairness, equity and social justice.

In terms of Luke and Freebody’s framework (1990), learners are not only code breakers, meaning makers and text users, but they are also text analysts and critics who second-guess the meaning of texts and look beneath texts to the sources and purposes of production. (See *A Guide to Effective Literacy Instruction, Grades 4 to 6, Volume One: Foundations of Literacy Instruction for the Junior Learner*, p. 29.)

## WHAT IT’S NOT

- About teaching a universal set of literacy skills
- About approaching literacy instruction as a neutral activity
- About a method or program
- About traditional comprehension questions, e.g., What is the main idea?
- Synonymous with critical thinking

## RESOURCES

- Critical Literacy. English Learning Area.  
<http://www.wfp.education.tas.gov.au/english/critlit.htm>
- Fehring, H. & Green, P., Eds. (2001). *Critical Literacy: A Collection of Articles from the Australian Literacy Educators' Association*. Newark, DE: International Reading Association.
- McLaughlin, M. & DeVoogd, G. L. (2004). *Critical Literacy: Enhancing Students' Comprehension of Text*. Toronto, ON: Scholastic.
- Pahl, K. & Rowse, J. (2005). *Literacy and Education: Understanding New Literacy Studies in the Classroom*. Thousand Oaks, California: Paul Chapman Publishing (SAGE).
- Shor, I. (1997). What is Critical Literacy? In *Journal for Pedagogy, Pluralism and Practice*, 4, 1. Lesley College, Cambridge, Mass.  
<http://www.lesley.edu/journals/jppp/4/1/shor.html>

## CRITICAL LITERACY:

### READING BENEATH, BEHIND AND BEYOND THE TEXT #2

#### STRATEGIES

- Pose questions, and teach students to pose questions, that “disrupt” common understandings, question the text’s authority, and second-guess meaning, e.g., What assumptions are made by the author about the reader?
- Examine the text from multiple viewpoints, including those not represented.
- Compare/contrast texts, applying questions such as those on Critical Literacy Card #3.
- Juxtapose predictions about text against discoveries made during reading.
- Compare/contrast traditional and non-traditional versions of familiar stories.
- Create alternative texts, e.g., fractured fairy tales, by switching genders, settings.
- Focus on socio-political issues of power and relationships among people.

- Use a variety of patterned partner readings, e.g., read-pause-discuss, read-pause-make connection, read-pause-sketch, read-pause-summarize, read-pause-predict (McLaughlin & Allen, 2002, in McLaughlin & DeVoogd).
- Engage students in writing to explore how language works, the ways various individuals and institutions use literacy to their own ends, the reasons behind such use (Green, p. 10).
- Use language and literacy to reflect and act on behalf of social justice.

## CHALLENGES

- “There is no magic method” (Luke, 2004, in McLaughlin & DeVoogd).
- Creating appropriate open-ended questions that problematize the text and teach students to “read against the grain.”
- Facilitating “fearless speaking and listening” among students about the issues raised by these questions (Lucy West, National Council of Supervisors of Mathematics Conference, April 2008).

Adapted from McLaughlin & DeVoogd (2004). *Enhancing Students' Comprehension of Text*. Toronto, Ontario: Scholastic, p. 65.

## CRITICAL LITERACY:

### **READING BENEATH, BEHIND AND BEYOND THE TEXT #3**

#### **QUESTIONS TO THINK ABOUT TEXT**

- Who created/produced the text? How do we know?
- What does the author want the reader to know, think or feel? Why do we think this?
- What assumptions does the author make about the reader's beliefs, values and knowledge? How do we know?
- What view of the world does the text convey? Why do we think this?
- How does language work to influence my thinking?
- What points of view and perspectives are missing? How significant is their omission?
- What information does the author leave out? How significant is it?
- Who is most likely to read this text?
- Who is most likely to benefit from this text?

- Why was this text produced?
- What knowledge of the world beyond the text is necessary in order to make sense of the text?
- Is this text consistent with what I know? Do I need to seek another source of information?
- Is the text fair? Why or why not? What action do I need to take?

Literacy is itself “an emergent technology—that is, a technology that changes the environment in which it is used” (Freebody, 1993, in Durrant & Green, 2001, p. 155).

## **QUESTIONS TO PROMPT ACTION IN RESPONSE TO TEXT**

- What will I learn of value about this topic from this author? How can I find out about other perspectives on the topic?
- How will my attitude, opinions, feelings, or actions change with respect to this topic? Why?
- How will I treat others differently as a result of having critically analyzed this topic?
- What could I do to change a rule, a procedure or an attitude that is unjust?
- How can I use literacy to learn more about what I've read?
- How can I use literacy to support those who are treated unfairly?
- How can I use literacy to make a difference in the world?

## CRITICAL LITERACY QUOTATIONS

- "[R]ead the word to read the world" (Freire, 1970).
- "The literate individual is someone who knows that there is more than one version available" (Green, 2001, p. 11).
- "[C]omprehension is never enough; it must have a critical edge" (Pearson, 2001, in McLaughlin & DeVoogd).
- Teachers need to support students to become "active questioners of the social reality around them" (Green, 2001, p. 9).
- Literacy is itself "an emergent technology—that is, a technology that changes the environment in which it is used" (Freebody, 1993, in Durrant & Green, 2001, p. 155).

## CRITICAL LITERACY:

### READING BENEATH, BEHIND AND BEYOND THE TEXT #4

## FRAMEWORKS AND CONNECTIONS

- Critical Literacy resonates with Brian Cambourne's (2002) description of **social constructivism**:
  1. Learning cannot be separated from context.
  2. The learner's goals are central to what is learned.
  3. Knowledge and meaning are socially constructed through negotiation, evaluation and transformation (in McLaughlin & DeVoogd, 2004).

- Integrate strategies for Critical Literacy into familiar **reading comprehension frameworks**: modeling with think-alouds, direct instruction, shared and guided practice, reflection.
- **Read, reflect and act**: Create opportunities for students to immerse themselves in texts, questions and “fearless speaking and listening”; to reflect on their reading/viewing/listening; to act (Lucy West, National Council of Supervisors of Mathematics Conference, April 2008).
- **Code-breaker, meaning-maker, text-user, text-analyst**: Students need to develop proficiency in each of these roles; although Critical Literacy is most closely aligned with the role of text-analyst, the other roles are all implicated (Luke & Freebody, 1999).

## **STUDENTS, AFTER INSTRUCTION FROM A CRITICAL LITERACY PERSPECTIVE**

- “I used to just read what was there on the page. Now I do that and then I think about what’s not on the page—what the author didn’t write” (Kaleena, in McLaughlin & DeVogd, 2004, p. 148).
- “I learned that there could be a thousand other truths about what I’m reading” (Marzene, in McLaughlin & DeVogd, 2004, p. 148).

## RESOURCES

- Bransford, J., Brown, A., & Cocking, R., Eds. (1999, 2000). *How People Learn: Brain, Mind, Experience, and School*. Washington, DC: National Academy Press.
- Flavell, John (1979). Metacognition and cognitive monitoring: A new area of cognitive developmental inquiry. *American Psychologist* 34, pp. 906–911.
- Israel, Susan E. (2007). *Using Metacognitive Assessments to Create Individualized Reading Instruction*. Newark, DE: International Reading Association.
- Keene, Elin Oliver (2007). The essence of understanding. In *Adolescent Literacy: Turning Promise into Practice*. Portsmouth, NH: Heinemann, pp. 27–38.
- Marzano, R.J. et al. (1988). *Dimensions of Thinking: A Framework for Curriculum and Instruction*. Alexandria, VA: Association of Supervision and Curriculum Development (ASCD).

## METACOGNITION

## #1

The term Metacognition can be traced back to Flavell (1979). Since then, acquiring and using metacognitive skills has emerged as a powerful approach for promoting a thinking skills curriculum, and in literacy and across all disciplines. For this reason, teachers need to teach *with* Metacognition (i.e., strategically) and *for* Metacognition (i.e., to help students develop metacognitive skills).

## WHAT IT IS

Ellin Oliver Keene (2007) describes Metacognition as “listening to the voice in your mind that speaks while you read.” While Metacognition is often spoken of in the context of reading instruction, this term refers to awareness and knowledge of one’s own thinking processes, or thinking about thinking, in all kinds of learning contexts.

Students who are metacognitive:

- Know what they know, and know how they learn
- Set goals and strategically plan for learning
- Monitor and adjust thinking processes and strategies to optimize learning
- Reflect on their learning and self-assess

## STUDENT BENEFITS

- Widened repertoire of literacy and learning strategies
- Increased student engagement, academic achievement, reading comprehension, and transfer of strategies
- Increased awareness of a range of learning strategies
- Increased ability to recognize when meaning breaks down and strategize accordingly
- Improved decision-making and goal-setting skills
- Increased self-confidence and independence
- Increased ability to take responsibility for their own learning
- Increased ability to self-assess the quality of their thinking
- Enhanced responsible citizenship

## METACOGNITION

## #2

### TEACHING APPROACHES

- Begin with goal-setting and understanding the task.
- Use explicit teaching methods while modeling strategies and explicitly showing students how to proceed by thinking aloud and using prompts for planning, monitoring and evaluating.
- Teach only a few strategies at a time—not only what and how, but also why and when to use them, how to monitor and self-assess.
- Integrate the teaching of metacognitive skills into the learning of something else, e.g., writing or problem solving.
- Assist students in developing a metacognitive vocabulary, a language with which to talk about their thinking.

## **IMPLICATIONS FOR STRATEGY INSTRUCTION**

Teachers need more than a procedural understanding of strategies. They also need understanding of the principles, purposes and conditions for their effective use. Teachers need not only to use/integrate strategies, but also to teach/give strategies to students.

Metacognitive and cognitive strategies are not easily distinguishable. Keene and Zimmerman (1997) believe that all comprehension strategies are a variation of Metacognition (*Guide to Effective Literacy Instruction, Grades 4–6, p. 60*). It may be helpful to think of it this way: A self-questioning strategy used while reading to obtain information would be a cognitive strategy, while a self-questioning strategy used to monitor what is being read would be a metacognitive strategy.

## METACOGNITION

#3

### QUESTIONS TO FOSTER CONSCIOUS REFLECTION

- What do I have to do? Do I understand the task?
- What am I trying to accomplish? Do I have clear goals?
- What else have I done that might help me to be successful in this task?
- What resources, people or materials can help me to be successful?
- What knowledge and skills do I have that will help me to be successful?
- What are my options and alternative approaches?
- How much time do I need?
- How well did my choice work?
- How close am I to my goal?
- What other strategies or approaches might move me closer to my goal?
- What might I keep or change?
- What are possible next steps?

the 1990s, the number of people in the UK who are aged 65 and over has increased from 10.5 million to 13.5 million, and the number of people aged 75 and over has increased from 4.5 million to 6.5 million (Office for National Statistics 2002).

There is a growing awareness of the need to address the health care needs of the elderly population. The Department of Health (2001) has set out a strategy for the NHS to meet the needs of the elderly population. This strategy is based on the principle of 'ageism-free care', which means that people of all ages should be treated as individuals, and not as a group. The strategy also emphasizes the need to provide a range of services that meet the needs of the elderly population, including residential care, day care, and home care. The strategy also emphasizes the need to involve the elderly population in the development and delivery of services.

The Department of Health (2001) also emphasizes the need to address the health care needs of the elderly population in a holistic way. This means that health care should not only focus on the physical health of the elderly population, but also on their mental health, social health, and overall quality of life. The Department of Health (2001) also emphasizes the need to address the health care needs of the elderly population in a way that is respectful of their dignity and autonomy. This means that health care should be provided in a way that allows the elderly population to make choices about their care and to live as independently as possible.

The Department of Health (2001) also emphasizes the need to address the health care needs of the elderly population in a way that is cost-effective. This means that health care should be provided in a way that is efficient and that does not waste resources. The Department of Health (2001) also emphasizes the need to address the health care needs of the elderly population in a way that is sustainable. This means that health care should be provided in a way that can be maintained over the long term.

The Department of Health (2001) also emphasizes the need to address the health care needs of the elderly population in a way that is equitable. This means that health care should be provided in a way that is fair and that does not discriminate against any group of people. The Department of Health (2001) also emphasizes the need to address the health care needs of the elderly population in a way that is transparent. This means that health care should be provided in a way that is open and that allows people to see how their money is being spent.

There are a number of factors that contribute to the health care needs of the elderly population. These factors include:

- Age-related changes in the body, such as a decline in muscle mass and a decrease in the ability to heal wounds.
- Chronic conditions, such as heart disease, diabetes, and arthritis.
- Sensory impairments, such as hearing loss and vision impairment.
- Cognitive impairment, such as dementia.
- Social isolation and loneliness.
- Financial difficulties.

There are a number of ways in which the health care needs of the elderly population can be addressed. These ways include:

- Providing a range of services that meet the needs of the elderly population, including residential care, day care, and home care.
- Involving the elderly population in the development and delivery of services.
- Addressing the health care needs of the elderly population in a holistic way.
- Addressing the health care needs of the elderly population in a way that is respectful of their dignity and autonomy.
- Addressing the health care needs of the elderly population in a way that is cost-effective.
- Addressing the health care needs of the elderly population in a way that is sustainable.
- Addressing the health care needs of the elderly population in a way that is equitable.
- Addressing the health care needs of the elderly population in a way that is transparent.

There are a number of challenges that are associated with addressing the health care needs of the elderly population. These challenges include:

- The increasing number of people in the elderly population.
- The increasing complexity of the health care needs of the elderly population.
- The increasing cost of health care for the elderly population.
- The increasing need for health care services for the elderly population.
- The increasing need for health care services that are respectful of the dignity and autonomy of the elderly population.
- The increasing need for health care services that are cost-effective.
- The increasing need for health care services that are sustainable.
- The increasing need for health care services that are equitable.
- The increasing need for health care services that are transparent.

There are a number of ways in which these challenges can be addressed. These ways include:

- Investing in health care services for the elderly population.
- Improving the efficiency of health care services for the elderly population.
- Improving the quality of health care services for the elderly population.
- Improving the accessibility of health care services for the elderly population.
- Improving the transparency of health care services for the elderly population.

There are a number of things that can be done to improve the health care needs of the elderly population. These things include:

- Encouraging the elderly population to live healthily.
- Encouraging the elderly population to seek help when they need it.
- Encouraging the elderly population to live independently.
- Encouraging the elderly population to be active.
- Encouraging the elderly population to be socially engaged.
- Encouraging the elderly population to be financially secure.

## **METACOGNITION**

**#4**

### **CHALLENGE**

Assess and evaluate students' metacognitive knowledge and skills.

### **ASSESSING AND EVALUATING METACOGNITION**

Well-established approaches to assessment of Metacognition include the following:

- Interviews
- Surveys
- Inventories
- Think-alouds

Think-alouds, “verbal reports of cognitive thought” (Israel, 2007, p. 71), are “respected measures of assessing cognitive ability” (Ericsson & Simon, 1984/1993). Students can think aloud while reading a text, be prompted to think aloud at strategic points and give a retrospective report immediately after reading (Israel, 2007, p. 72).

Assessment of Metacognition should not be limited to description of cognitive strategies, i.e., understanding of the task; goal-setting, planning, selecting, and evaluating strategies; monitoring comprehension; reflecting; and applying strategies to unfamiliar situations can all be assessed.

## **ADVICE FOR ASSESSING AND EVALUATING METACOGNITION**

Israel (2007) suggests that teachers:

- Focus on teaching and assessing a few strategies at a time, not only the what and how, but also why and when
- Provide opportunities for practice, including application to new situations
- Explain to learners how they will be assessed prior to assessment
- Avoid hypothetical situations, e.g., “What would you do if you were confused?”
- Experiment with ways for students to represent their thinking in a variety of modes, e.g., metacognitive flashcards
- Use more than one type of assessment, e.g., closed multiple choice and open-ended interview questions
- Use the same type of metacognitive assessment at the beginning and end of instruction
- Learn to interpret students’ responses for evidence of Metacognition, e.g., “I guess the horses are in the barn because I don’t see them in the pasture” indicates making an inference (p. 81).

Reflections—making connections with my past, current and future practices:

## **LITERACY CONCEPTS, PROCEDURES AND REFLECTION (CPR) CARD**

Conceptual knowledge about adolescent literacy—what I need to know about language, texts, thinking, and communication processes:

Procedural knowledge about adolescent literacy—noteworthy strategies and practices: