

**National Urban Alliance
for Effective Education**

**Learning and Teaching
Strategies**

www.nuatc.org

National Urban Alliance for Effective Education
One Hollow Lane, Suite 100
Lake Success, New York 11042
VOICE (800) NUA-4556 or (516) 812-6761
FAX (516) 365-4602



National Urban Alliance (NUA) Learning and Teaching Strategies

Table of Contents

<i>NUA PRINCIPLES AND PHILOSOPHIES</i>	4
COMPOSING (Speaking and Writing)	4
VOCABULARY AND CONCEPTS	5
COMPREHENSION.....	5
<i>NUA Learning and Teaching Strategies</i>	7
STRATEGY: Key Word (Prediction)	7
STRATEGY: Read Talk Write	8
STRATEGY: Key Word Notes.....	9
STRATEGY: Strip Story (Scrambled Sentences)	10
STRATEGY: Anticipation Guide	11
STRATEGY: Directed Reading-Thinking Activity (DRTA)	12
STRATEGY: Imitation Writing.....	13
STRATEGY: Read Draw Talk Write	14
STRATEGY: CLOZE Procedure.....	15
STRATEGY: Taxonomies - The ABC's of Word Power	16
STRATEGY: Composing With Keywords	18
STRATEGY: Metacognition.....	20



STRATEGY: Defining Format	22
STRATEGY: Reasons, Causes, Results	24
STRATEGY: Premises, Premises	26
STRATEGY: Personifications and Interactions	28
STRATEGY: Morphology and Etymology.....	29
STRATEGY: Who's Who.....	31
Touching the Spirit	32
What is Touching the Spirit Framework?	32
A Problem That Need Not Be	32
Utilizing Culture in the Achievement of Educational Excellence for African American Students	35
Used Within a Context of <i>Nine Supportive Practices</i>	35
STRATEGY: Act-Out Adjectives and Adverbs	36
STRATEGY: Dancing Definitions	40
STRATEGY: Essential Summaries	42
STRATEGY: Flash Cards for Mastery	44
STRATEGY: Good and Better.....	47
STRATEGY: Highly Recurring Phonic Elements and Phonic Pattern Hopscotch with Phonic Pattern Word Lists	55
STRATEGY: Thinking Maps - Tools for Learning	57
STRATEGY: Thinking Map - The Frame	58
STRATEGY: Thinking Map - Bubble Map	60
STRATEGY: Thinking Map - Double-Bubble Map.....	62
STRATEGY: Thinking Map - Flow Map	64
STRATEGY: Thinking Map - Tree Map.....	66
STRATEGY: Thinking Map - Brace Map.....	68
STRATEGY: Thinking Map - Bridge Map	70
STRATEGY: Thinking Map - Circle Map.....	72
STRATEGY: Thinking Map - Multi-Flow Map.....	74





National Urban Alliance for Effective Education

NUA PRINCIPLES AND PHILOSOPHIES

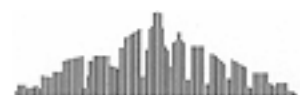
The NUA Principles and Philosophies guide our selection of the Learning and Teaching Strategies as described below.

Skill in writing is closely connected to skill in speaking and both are affected by the discourse that students hear and read. It's important to develop strong composing skills and positive attitudes towards speaking and writing by using strategies that invite students to experience genuine purpose and satisfaction when they express themselves.

COMPOSING (Speaking and Writing)

Composing skill is developed by focusing on: speaking and writing fluently, speaking and writing for different purposes, expressing ideas coherently and gracefully, and making appropriate use of conventions, e.g., grammar, usage, and mechanics. Effective strategies help students generate and organize ideas, shape an utterance or a written statement, revise as well as edit their work, and, as appropriate, present the completed piece to an audience. Collaborative as well as individual composition is valuable at all grade levels.

Attitudes towards composing are enhanced by: helping students discover their own voices, building students' confidence in their expressive abilities, encouraging students to speak and write for their own purposes as well as responding to teacher assignments and test prompts, and giving students many opportunities for seeing how oral and written works of all kinds have an impact on the society that surrounds the classroom.



VOCABULARY AND CONCEPTS

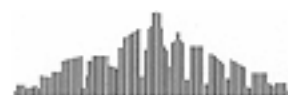
It's important to make a distinction between vocabulary and concepts. When the focus is on concepts, the goal is to help students learn about something that is wholly or largely unfamiliar to them or to strengthen and expand understanding so meaningful, relevant connections can be made by the students. When the focus is on vocabulary, the goal is to help students learn a word/term for a concept that is wholly or largely familiar to them. For instance, if students have never heard of a *quern*, then the focus should be on the concept, i.e., learning what a quern is (a rudimentary hand mill used for grinding). If they already know what a *quern* is but have just not learned the word for it, then the focus will be on vocabulary, i.e., teaching the word by connecting it to the familiar object.

- When the focus is on concept development, students should learn the attributes and characteristics of the concept, recognize both examples and non-examples of the concept, and be able to explain the concept in their own words or represent it in a way that demonstrates their grasp of what it is.
- When the focus is on vocabulary, students should be explicitly taught the meaning of the word (as opposed to expecting them to learn it on their own). They should also hear the word used in meaningful contexts as well as see it in print, and they should use the word themselves in meaningful and engaging ways that cement learning.
- Students need explicit instruction in challenging vocabulary at all grade levels because the wider and deeper their vocabularies, the greater the chance they will be able to comprehend what they hear and read as well as express themselves effectively in speech and writing.

COMPREHENSION

Comprehension is a language-thinking process that involves a reader (or listener) interacting with a text (oral or written) to construct meaning. The process is constructive because the one doing the comprehending must "bring something" to the task in order to take away meaning.

Two critical "bring-to" components of comprehension are background of experience with the topic and familiarity with the language used to present the information. For example, if students have some experience with elephants and are familiar with the words, idioms, and syntactical elements in a text about elephants, they are in a good position to comprehend the text. To the extent that they are



unfamiliar with the topic and/or unfamiliar with the language used to present the information, their comprehension will suffer. For these reasons, it's appropriate to say that comprehension results from an interaction among these three elements: the person's knowledge of the world, the person's knowledge of the language, and the text.

Another critical component of comprehension involves general cognitive skills: grasping both literal and implied meanings, relating ideas to each other and seeing how those ideas can be related to those of other people and of other experiences, grasping the structure of ideas, e.g., main ideas and details, causes and effects, chronological order, comparisons and contrasts. These cognitive skills are not unique to comprehension in an academic setting.

Finally, mind set and attitude also affect comprehension. Readers (listeners) who expect to comprehend, have specific purposes in mind when they attempt to comprehend, and who are confident that they will comprehend are likely to do so. Those who listen (or read) without expecting to understand, without purpose for listening or reading, and without confidence that comprehension is possible are likely to have difficulty comprehending.



NUA Learning and Teaching Strategies

STRATEGY: Key Word (Prediction)

SKILLS ADDRESSED

- Activating prior knowledge before reading to enhance comprehension
- Generating (and justifying) hypotheses that become purposes for reading
- Listening to and weighing others' information and opinions
- Focusing attention on relevant information (before, during, after reading)
- Reading to answer self-generated questions
- Recognizing explicit information; inferring implicit information
- Articulating knowledge before and after reading

PREREQUISITES

- Ability to engage in flexible, divergent thinking
- Comfort about hypothesizing with limited information
- Ability to articulate and defend an idea or point of view
- Willingness to listen to others' ideas, compare/contrast with one's own
- Ability to use general knowledge (in absence of topic-specific knowledge)

STEPS INVOLVED

1. Teacher puts topic on board along with 8-15 words, numbers.
2. Students speculate on how terms relate to topic.
3. Groups share and debate hypotheses; teacher moderates, does not give hints.
4. Students read text to get more information.
5. Students review what they have learned, how their thinking has changed.

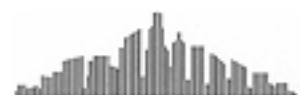
RELATED LEARNING PRINCIPLES

- Comprehension is influenced by "priming" (key words become salient).
- Recall is triggered by association (key words are associated with topic).
- Purposeful learning is most efficient and effective.
- Learner-set purposes are more effective than teacher-set purposes.

APPLICATION

This strategy can be applied across grade levels and content areas. It works best with expository text but can be used with stories. In the primary grades, use fewer key words and read the text aloud while the students listen for them. At other levels, to differentiate instruction, have the whole class discuss the same words before reading, then read different texts on the topic, matched to students' reading levels.

Source: W. Dorsey Hammond, Ph.D. For more information, see D. Nessel, M Jones, and C. Dixon, *Thinking Through the Language Arts* (Macmillan, 1989).



STRATEGY: Read Talk Write

SKILLS ADDRESSED

- Reading with attention to meaning, not just "word calling"
- Purposeful reading (rereading) of text to verbalize information to partner
- Self-monitoring of comprehension ("What do I really understand?")
- Recalling what was read while not looking at text
- Talking and writing (non-stop) for sustained periods
- Writing information in own words rather than copying from text

PREREQUISITES

- Understanding that reading is more than pronouncing the words
- Experience with thinking about the meaning while reading
- Willingness to talk to and listen to a partner
- Ability to express what one learned from a text orally (and in writing)

STEPS INVOLVED

1. Students establish partnerships; decide who is A, who is B.
2. Everyone reads text individually and silently for 60 seconds (teacher times).
3. Students close their books or look away from text.
4. A (or B) students tell their partners what they read, talking for 60 seconds.
5. B (or A) students take their turn at talking for 60 seconds.
6. Students write individually what they learned, books still closed.

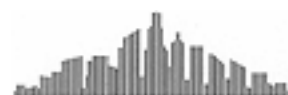
RELATED LEARNING PRINCIPLES

- Comprehension is reinforced and enhanced by adequate processing time.
- Bursts of concentrated attention are better than continuous attention.
- Articulating what one has learned reinforces the learning.
- Learning is enhanced when students read, listen, speak, and write.
- Meaningful repetition cements learning.

APPLICATION

This strategy works across grade levels and content areas. In K-1 to start, teacher can read text aloud, have pairs talk, then have class tell main points while teacher writes students' words on chart (Listen-Talk-Dictate) or do Read-Talk-Draw. At all levels, to differentiate instruction, have students read different texts, matched to their reading levels. Have students use RTW independently when they are doing research for reports or studying.

Source: D. Nessel, M Jones, and C. Dixon, *Thinking Through the Language Arts* (Macmillan, 1989).



STRATEGY: Key Word Notes

SKILLS ADDRESSED

- Reading with attention to meaning, not just "word calling"
- Purposeful reading (rereading) of text (to tell partner what you learned)
- Self-monitoring of comprehension ("What do I really understand?")
- Recalling what was read while not looking at text
- Distinguishing more important from less important words, concepts
- Writing information in own words rather than copying from text

PREREQUISITES

- Understanding that reading is more than pronouncing the words
- Experience with thinking about the meaning while reading
- Willingness to talk to and listen to a partner
- Ability to express what one learned from a text orally (and in writing)

STEPS INVOLVED

1. Students work in pairs; each individual gets Key Word Notes form
2. Everyone reads designated piece of text individually, silently
3. Each student selects 3-4 words as memory aids, writes in Box 1
4. Partners tell each other what words they selected and why
5. Students repeat steps 2-4, completing all segments, using boxes 2, 3, 4
6. Books closed, each student uses his/her Key Words to write summary in box 5

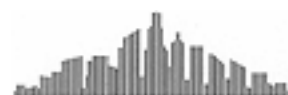
RELATED LEARNING PRINCIPLES

- Choice enhances learning and contributes to positive attitudes.
- Comprehension is reinforced and enhanced by adequate processing time.
- Bursts of concentrated attention are better than continuous attention.
- Articulating what one has learned reinforces the learning.
- Learning is enhanced when students read, listen, speak, and write.
- Meaningful repetition cements learning.

APPLICATION

This strategy works across grade levels and content areas but is best in grades 3-12. Can gradually increase segments to read and numbers of words to select at each reading. To differentiate instruction, have students read different texts, matched to their reading levels. Have students use strategy independently when they are studying or doing research.

Source: D. Nessel devised this strategy in working as a consultant with a variety of teachers. Others may use the same, or a similar, approach to note-taking.



STRATEGY: Strip Story (Scrambled Sentences)

SKILLS ADDRESSED

- Developing familiarity with structural features of text
- Reasoning logically about the order of ideas in a text
- Noting relationships among sentences in a text
- Using details to infer the main idea
- Seeing how reordering sentences affects clarity and meaning
- Developing skill in reading like a writer

PREREQUISITES

- Ability to engage in flexible thinking
- Experience hearing well-structured texts
- Experience with reading multi-sentence (multi-paragraph) text
- Familiarity with (almost all of) the words in the text

STEPS INVOLVED

1. Each group gets a set of sentence strips that, together, make up a passage.
2. Groups arrange the sentences in the way they think makes the most sense.
3. Groups review each other's arrangements, then revise own (optional).
4. Students read the original text, revise arrangements, discuss the information.
5. Students reflect on what they learned about the topic and about composing.

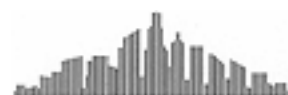
RELATED LEARNING PRINCIPLES

- Comprehension is influenced by "priming."
- Meaningful repetition (words, sentences) cements learning.
- The brain seeks patterns and strives for order.
- Composing and comprehension are flip sides of the same coin.

APPLICATION

This strategy can be applied across grade levels and content areas with either narrative or expository text. Well-written texts work best. In the primary grades, use only three or four sentences, on large strips; read these aloud with students and do the rearranging as group. At other levels, to differentiate instruction, give groups different texts, matched to their reading levels.

Source: The original source is not known. For more information, see D. Nessel and J. Baltas, *Thinking Strategies for Student Achievement* (Skylight, 2000).



STRATEGY: Anticipation Guide

SKILLS ADDRESSED

- Activating prior knowledge before reading to enhance comprehension
- Generating (and justifying) hypotheses that become purposes for reading
- Listening to and weighing others' information and opinions
- Focusing attention on relevant information (before, during, after reading)
- Reading to answer self-generated questions
- Recognizing explicit information; inferring implicit information
- Articulating knowledge before and after reading

PREREQUISITES

- Ability to engage in flexible, divergent thinking
- Comfort about hypothesizing with limited information
- Ability to articulate and defend an idea or point of view
- Willingness to listen to others' ideas, compare/contrast with one's own
- Ability to use general knowledge (in absence of topic-specific knowledge)

STEPS INVOLVED

1. Teacher writes several declarative statements about the topic.
2. Students decide if they agree or disagree with the statements.
3. Groups share and debate ideas; teacher moderates, does not give hints.
4. Students read text to get more information.
5. Students review statements, revise, discuss how their thinking has changed.

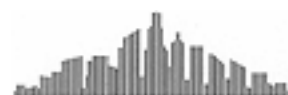
RELATED LEARNING PRINCIPLES

- Comprehension is influenced by "priming" (details in statements become salient).
- Purposeful learning is most efficient and effective.
- Learner-set purposes are more effective than teacher-set purposes.

APPLICATION

This strategy can be applied across grade levels and content areas. In the primary grades, use fewer statements and read the text aloud while the students listen for the information. To differentiate instruction, have the whole class discuss the same statements before reading (based on information the teacher gleaned from different texts), then have students read different texts, matched to their reading levels.

Source: H. Herber, *Teaching Reading in the Content Areas* (Prentice Hall, 1978).



STRATEGY: Directed Reading-Thinking Activity (DRTA)

SKILLS ADDRESSED

- Activating prior knowledge before and during reading to enhance comprehension
- Generating (and justifying) hypotheses that become purposes for reading
- Listening to and weighing others' information and opinions
- Focusing attention on relevant information (before, during, after reading)
- Reading to answer self-generated questions
- Articulating knowledge before and after reading

PREREQUISITES

- Understanding of story as a constructed sequence of events ("sense of story")
- Ability to use both divergent and convergent thinking
- Comfort about hypothesizing with limited information
- Ability to articulate and defend an idea or point of view
- Willingness to listen to others' ideas, compare/contrast with one's own

STEPS INVOLVED

1. Teacher separates narrative text into parts.
2. Students read first part, predict what will happen next and why
3. Groups share and debate ideas; teacher moderates, does not give hints.
4. Students read next part to confirm/revise predictions; then repeat steps.

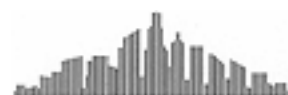
RELATED LEARNING PRINCIPLES

- Hypothesizing based on limited information elevates thinking.
- Curiosity, a powerful motivator, is aroused when predictions are elicited.
- Authenticity of discussion is improved with DRTA questioning strategies.

APPLICATION

This strategy is designed for guiding the reading of narrative texts and can be applied from first through twelfth grade. In the primary grades, the teacher can read the text aloud (DLTA). The same principles can be used to guide the viewing of a narrative on film (DVRTA). The process of forming hypotheses based on limited information (in this case, story information) is a skill that can be used widely in and out of school.

Source: Russell Stauffer, *Teaching Reading as a Thinking Process* (Harper & Row, 1969).



STRATEGY: Imitation Writing

SKILLS ADDRESSED

- Developing sentence fluency
- Increasing and refining vocabulary
- Developing implicit and, as desired, explicit knowledge of grammar and usage
- Developing facility with writing longer passages (as desired)
- Encouraging close reading of text

PREREQUISITES

- Ability to express own ideas in writing
- Ability to read the sentences (or texts) used as models
- Wide enough vocabulary to draw upon

STEPS INVOLVED

1. Teacher selects (or writes) one or more model sentences.
2. Students read the model and copy it onto their papers.
3. Students first substitute synonyms for the key words (Substitution).
4. Students then write original sentences, on different topics, adhering to same syntax as original (Imitation).

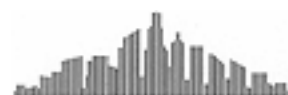
RELATED LEARNING PRINCIPLES

- Using models to develop skill is a powerful learning strategy.
- Becoming aware of patterns enhances learning.
- Good writers notice how other writers ply their craft.
- Students who use Imitation Writing begin to read like writers.

APPLICATION

This strategy can be used at all grade levels. In the primary grades, the teacher can use simple sentence structures, read the models aloud, and serve as the recorder for the children's oral composing of substitution and imitation sentences. In the upper grades, the teacher can use Imitation Writing as window onto lessons in grammar, usage, and mechanics. Imitation Writing can be used as a warm-up exercise or as a regular writing assignment. Collections of imitation sentences can be compiled into class books and illustrated.

Source: Bay Area Writing Project/National Writing Project. For more information, see D. Nessel, M Jones, and C. Dixon, *Thinking Through the Language Arts* (Macmillan, 1989).



STRATEGY: Read Draw Talk Write

SKILLS ADDRESSED

- Reading with attention to meaning, not just "word calling"
- Purposeful reading (rereading) to represent the information visually
- Self-monitoring of comprehension ("What do I really understand?")
- Recalling what was read while not looking at text
- Writing information in own words rather than copying from text

PREREQUISITES

- Understanding that reading is more than pronouncing the words
- Experience with thinking about the meaning while reading
- Ability to represent information in drawing
- Willingness to talk to and listen to a partner
- Ability to express what one learned from a text orally (and in writing)

STEPS INVOLVED

1. Students establish partnerships.
2. Everyone reads text individually, silently for 60 seconds (teacher times).
3. Students close their books or look away from text.
4. Students draw a representation of what they read.
5. Partners show each other their drawings and talk about what they read.
6. Students write individually what they learned, books still closed.

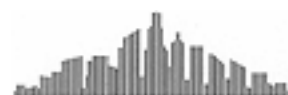
RELATED LEARNING PRINCIPLES

- Comprehension reinforced and enhanced by adequate processing time.
- Bursts of concentrated attention are better than continuous attention.
- Representing and articulating what one has learned reinforces the learning.
- Learning is enhanced when students read, draw, listen, speak, and write.
- Meaningful repetition cements learning.

APPLICATION

This strategy works across grade levels and content areas. It is especially appropriate for text information that can easily be visualized. In K-1 to start, teacher can read text aloud, have students draw, then talk, then tell main points while teacher writes students' words on chart. At all levels, to differentiate instruction, students can read different texts, matched to their reading levels. Students can also use RDW independently when they are doing research for reports or studying.

Source: This is a variation on Read Talk Write, which first appeared in D. Nessel, M Jones, and C. Dixon, *Thinking Through the Language Arts* (Macmillan, 1989).



STRATEGY: CLOZE Procedure

SKILLS ADDRESSED

- Using context clues to identify words
- Experiencing reading as a process of constructing meaning

PREREQUISITES

- When listening, the ability to fill in the next words when the reader pauses
- Experience with thinking about the meaning while reading
- Understanding that reading involves forming and testing hypotheses

STEPS INVOLVED

1. Teacher constructs passage, leaving first and last sentences intact and deleting every nth word, starting with the second sentence.
2. Students read text individually and fill in the blanks.
3. If used as test: teacher collects and score papers (60% correct=independent level; 41-59% correct=instructional level; 40% or less correct=frustration level)
4. If used for instruction: Students discuss their choices, share their reasoning

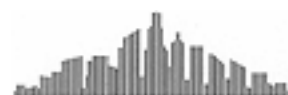
RELATED LEARNING PRINCIPLES

- Comprehension is developed and reinforced by close reading and rereading.
- Using context clues encourages careful attention to meanings.
- Practice with a skill, i.e., using context clues, leads to effective use of skill.
- Patterns (in this case, syntactical) help the brain construct meaning.

APPLICATION

In K-1, to acclimate students to the process of using context, the teacher can read stories aloud, pausing mid-sentence to have students supply the next word(s). When students are reading well on their own, cloze passages can be introduced to develop and refine their abilities to use context clues and to read with the intention of constructing meaning. Cloze passages can be used for teaching or testing. If used for teaching, specific kinds of words, e.g., adjectives, may be deleted rather than every nth word. If used for testing, scoring protocols may vary, depending on purpose. Cloze passages are favored in ESL classrooms because they give students effective practice with the syntax and vocabulary of English.

Source: W. Taylor, "Cloze Procedure: A New Tool for Measuring Readability." *Journalism Quarterly* Vol. 30, No. 4, 1953, pp. 415-33.



STRATEGY: Taxonomies – The ABC's of Word Power

What is it? –Alphabetical lists of terms related to a topic or subject that develops skills of categorization

SLOGAN: WORDS ARE FREE!

SKILLS ADDRESSED:

- Organizing prior, ongoing, and new knowledge
- Focusing on topic
- Taking notes
- Expanding vocabulary
- Building a personal thesaurus
- Developing cooperative and shared learning experiences
- Listening to others

PREREQUISITES

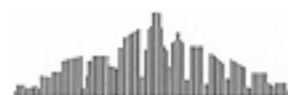
- Knowledge of alphabet
- Associating words with central topic
- Ability to work individually and cooperatively
- Some knowledge of spelling

STEPS INVOLVED

1. Each participant works alone and thinks of as many words that relate to the topic being studied.
2. Students enter each word next to its initial letter
3. Students work for three or four minutes without talking to anyone in the class
4. Students then *collaborate* by forming small groups and share their words, adding them to their personal Taxonomies
5. Whole class forms a group to *cross-pollinate*.
6. Students contribute words to the group by saying, "I have a word on the topic of..... The word is"
7. Everyone adds the word to their Taxonomy.
8. Other procedures can be found in *Writing As Learning*.

RELATED LEARNING PRINCIPLES

- Focusing on a topic, concept, or idea enhances learning
- Enlarging vocabulary provides access to new ideas and concepts
- Advance organizing and assessment of prior knowledge adds to new knowledge
- Ongoing note-taking reinforces memory
- Collecting words as concepts for text composing builds confidence for composing



STRATEGY: TAXONOMIES - THE ABC'S OF WORD POWER CONTINUED

APPLICATION

This strategy is for all grade levels and content areas. It serves as the foundation for listening, skimming text for important vocabulary, keeping track of essential information, taking notes, and having a starting point for writing. When students keep their Taxonomies in a notebook with a table of contents, they have an invaluable reference of their subject area words and topics.

Strategy Source: *Writing As Learning*. Evelyn Rothstein and Gerald Lauber (Skylight Publications, 2000).



STRATEGY: Composing With Keywords

What is it?: – A strategy of using selected words from Taxonomies or text to compose key ideas in sentence or paragraph format

SLOGAN: Have Words, Can Write!

SKILLS ADDRESSED:

- Having knowledge and availability of words promote better writing
- Having access to words builds sentence fluency and creativity
- Words from different subject or contents help the student build a subject area "voice."
- Words are a definer of knowledge

PREREQUISITES

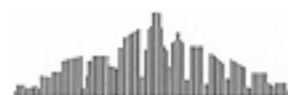
- Building a personal thesaurus with Taxonomies
- Starting with a minimum of three related words to compose one sentence
- Some knowledge of words forms (affixes)
- Some knowledge of sentence conventions (capital letters and punctuation)
- Some knowledge of sentence boundaries (one sentence vs. two sentences unpunctuated)

STEPS INVOLVED

1. Select three words from a Taxonomy (or text)
2. Compose one sentence using all three words
3. Add needed endings and use the words in any order you wish
4. Read your sentence to your partner or group this way:
"Here are my words:,.....,..... This is my sentence:"
5. Other procedures are in *Writing As Learning*.

RELATED LEARNING PRINCIPLES

- A starting point for writing builds confidence
- Words are concepts; sentences are the expanders of concepts
- Writing *initially* without worry about supporting details or written conventions, frees the writer for composing
- Creativity is enhanced when sentences can be factual or fanciful
- Confidence builds in the individual when everyone can start out equally as a writer or composer
- Students of different abilities and styles can find their own voice



STRATEGY: COMPOSING WITH KEYWORDS CONTINUED

APPLICATION

Composing with Keywords can be used for factual and fictional writing, permitting students to respond to new learning or review previous information. By selecting Keywords, students focus on main or related ideas, or create their own ideas. This strategy also serves as a vocabulary builder, a means of making journal entries, and the starter of a narrative or exposition.

Strategy Source: *Writing As Learning*. Evelyn Rothstein and Gerald Lauber (Skylight Publications, 2000).



STRATEGY: Metacognition

What is it? -Self-awareness of one's knowledge stated in terms such as "I know that I know" or "I know that I need to know."

SLOGAN: I Know What I Know!

SKILLS ADDRESSED:

- Accessing prior knowledge through conscious awareness
- Searching for new knowledge
- Relating prior knowledge to new knowledge
- Stating what you know, want to know, and need to know in an organized format
- Linking what you know to various subject areas

PREREQUISITES

- Group and/or class discussion of topic or ideas
- Oral statements by students of what they personally know about a topic
- Taxonomy of words related to topic
- Possible use of KWL (Ogle)
- Skimming and scanning practice of written text

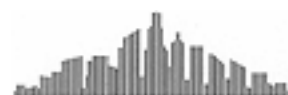
STEPS INVOLVED

1. Set up double spread notebooks pages (e.g. pages 8 and 9 facing each other)
2. Write term METACOGNITION on top of page
3. Skip a line and write, "I know that I know something about....."
4. Skip a line and write, "First,"
5. Move to the middle of the page or go to the next page (facing) and write, "In addition,"
6. Go to the middle of the page and write, "Finally,"
7. Go to the bottom of the page, about two lines from the bottom, and write, "Now"
8. This setup will allow the students to write their first metacognition piece "I know that I know something about....." This statement will then be followed by three supporting statements and a conclusion ("Now you know something that I know about....")

See Chapter 4 in WAL for additional Metacognition formats

RELATED LEARNING PRINCIPLES

- Integration of writing with subject areas increases knowledge
- Comparing prior knowledge with new knowledge brings greater metacognition
- Becoming aware of what one needs to know and how one goes about learning how and what to know is a step in learning how to learn
- Becoming aware of one's own interests is a springboard for writing



STRATEGY: METACOGNITION CONTINUED

APPLICATION

According to Arthur Costa, metacognition is one of the essential characteristics of intelligent behavior that, together with curiosity and wonderment, motivate people to seek additional knowledge. David Perkins expands the concept of metacognition to knowing one's prior knowledge, recognizing new knowledge, and identifying expected knowledge. The application of metacognition works especially well in developing and building reading comprehension.

Strategy Source: *Writing As Learning*. Evelyn Rothstein and Gerald Lauber (Skylight Publications, 2000).



STRATEGY: Defining Format

What is it? – A three-part template for defining a term by asking a question, stating the category, and listing the defining characteristics

SLOGAN: Write to a Martian!

SKILLS ADDRESSED:

- Building vocabulary
- Clarifying meaning of word(s)
- Focusing on the "distant" audience
- Separating the broad category from the details, attributes, or characteristics
- Building a paragraph of meaning

PREREQUISITES

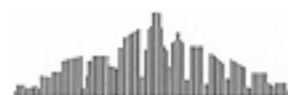
- Asking questions
- Learning to categorize
- Understanding details or characteristics
- Converting a term to the noun form (if necessary)

STEPS INVOLVED

1. Set up a double-page spread; divide the left-hand page in half
2. There are now three columns. Label the columns QUESTION, CATEGORY, CHARACTERISTICS
3. Write the QUESTION (e.g. What is a lion?)
4. Under the question, begin the answer: "A lion is a..."
5. Move to CATEGORY and write the category (e.g. animal or mammal or feline)
6. Move to CHARACTERISTICS. List the characteristics numerically.
7. Compose a paragraph using the information from the Defining Format template (see *Writing As Learning* for more examples)

RELATED LEARNING PRINCIPLES

- Constructing meaning is more effective for learning than copying meaning
- Clarification of meaning comes when the students can distinguish the general from the specific
- The ability to categorize results in distinguishing ideas and promotes comparing and contrasting
- Using templates and patterns enhances understanding



STRATEGY: DEFINING FORMAT CONTINUED

APPLICATION

Defining Format is a strategy for clarifying the vocabulary in all subject areas. It moves the student away from such vague definitions as "A house is something..." or "a pencil is something..." It can be used to define a term simply (e.g. What is a cat?) where the category is simply "animal" or move the student to think of a cat as a vertebrate, mammal, or feline. It can be applied with the Double Bubble Map to show both linear and circular comparisons and can be compared with dictionary definitions to determine which definitions are clearer and better detailed.

Strategy Source: *Writing As Learning*. Evelyn Rothstein and Gerald Lauber (Skylight Publications, 2000).



STRATEGY: Reasons, Causes, Results

What is it? - An organizational essay format for detailing reasons, causes, purposes, results, and procedures written in three genres: personal, persuasive, explanatory

SLOGAN: Think in Threes!

SKILLS ADDRESSED:

- The basic concept of the essay
- Three main types of essays: personal, persuasive, explanatory
- Audience and topics
- Keywords in essays
- Expanding ideas

PREREQUISITES

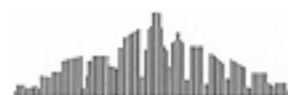
- Writing metacognitive statements
- Brainstorming essay topics
- Focusing on audience(s)
- Understanding point of view
- Understanding the distinction between general or main idea and supporting details
- Some knowledge of research and paraphrasing

STEPS INVOLVED

1. Students will learn three topic starters (one at a time):
 There are three reasons why I...(personal essay)
 There are three reasons why we should... (persuasive)
 There are three reasons why *topic*... (explanatory)
2. Students will complete each of the above starters (one at a time) and then compare the distinctions among the essays.
3. Students will write outlines (5) for each essay type essay from each type.
4. Students will then practice writing three or four support sentences for each reason in each of the forms.
5. See *Writing As Learning* for additional formats similar to the above

RELATED LEARNING PRINCIPLES

- Audience determines the voice and style of a piece of writing
- An organized format is a cognitive map for the writer and reader
- A clear starting sentence guides the in relating to the genre and topic
- Supporting statements convince the reader of the writer's competence and point of view
- Transitions are guides to the writer and audience
- Statements supported with research clarify and convince



STRATEGY: REASONS, CAUSES, RESULTS CONTINUED

APPLICATION

Writing essays in three formats cuts across all content areas especially in grades 4 and higher. The basic formats above are also the springboard for developing thesis statements and writing not only about reasons, but about causes (e.g. the Civil War) and results (e.g. Martin Luther King, Jr.'s speeches). These essay formats also help unite the student with the text particularly when the text is informative or expository.

Strategy Source: *Writing As Learning*. Evelyn Rothstein and Gerald Lauber (Skylight Publications, 2000).



STRATEGY: Premises, Premises

What is it? -A format for writing literary summaries or premises that serve as the basis for further writing related to making a movie (treatment, dialogue, reviews)

SLOGAN: Let's Make a Movie

SKILLS ADDRESSED:

- Finding and stating the essence or theme of a book or play
- Understanding the qualities and attributes of characters
- Developing empathy with the characters
- Conceptualizing and grasping the idea of change or the transformational arc
- Exploring human emotions of love, fear, joy, loneliness, etc.
- Creating a new genre (film) from an earlier genre (book, play)
- Writing a premise statement, treatment, and dialogue
- Performing and filming

PREREQUISITES

- Reading a full-length book or play
- Learning how to watch a film from opening to closing (includes all the credits)
- Studying the makers of a film (developer, producer, casting agent, production and costume designers, script writer, camera, etc.)
- Learning to write the premise, treatment, dialogue
- Studying the structure of a story

STEPS INVOLVED

1. Read the story keeping it in mind as a film
2. Choose the roles each student will take (developer, producer, etc.)
3. Write the Premise Statement
4. Develop the Character Profiles
5. Write the treatment
6. Prepare the storyboard
7. Write the dialogue
8. Create the set and costumes
9. Begin rehearsals
10. Write the credits
11. Film the movie
12. View the movie and show it to others
13. See WAL for other details



STRATEGY: PREMISES, PREMISES CONTINUED

RELATED LEARNING PRINCIPLES

- Active involvement in a project enhances learning
- Make use of multiple intelligences and abilities of each student
- Provide opportunities for each student to work independently, collaboratively, and in large groups to build competence and confidence
- Involve students in hands-on, real-life experiences related to classroom learning for a complete understanding of an idea or skill

APPLICATION

Premises, Premises can begin in kindergarten with simple dramatic play based on nursery rhymes, fairy tales, and other genres. At each grade, a new aspect of the strategy can be added and by third or fourth grade, students can begin to "make a movie" which will involve reading, writing, performing, and filming.

Strategy Source: *Writing As Learning*. Evelyn Rothstein and Gerald Lauber (Skylight Publications, 2000)



STRATEGY: Personifications and Interactions

What is it? – A writing strategy in which the writer assumes the roles of a character or object and writes to another character or object

SLOGAN: Know Thyself

SKILLS ADDRESSED:

- Developing point of view
- Role playing
- Becoming empathetic
- Writing to a known audience
- Responding to an audience
- Learning who “you” are and what makes “you who you are”

PREREQUISITES

- Knowing how to learn deeply about a historic or literary person, animal, topic, word, or idea
- Seeing the world from the perspective of that person, animal, topic, word, or idea
- Knowing how to write a letter or soliloquy
- Imagining oneself as someone or something else

STEPS INVOLVED

1. Select a literary or historic person, animal, topic, word, or idea
2. Read/research about one of the above
3. Learn the format of a letter (see WAL for special formats)
4. Learn the format of a soliloquy
5. Write a letter (or soliloquy) telling about “yourself” in detail
6. Respond to the return letter or audience reactions

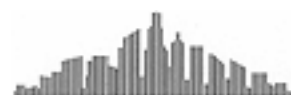
RELATED LEARNING PRINCIPLES

- Empathy, wonderment, curiosity, and metacognition are simultaneously used in this strategy enhancing “intelligent behavior”
- Knowing oneself allows one to know others
- Walking in someone else’s moccasins builds deep understanding of both others and self

APPLICATION

This strategy can be used in every subject area beginning in the early grades. It can be a combined science/writing (Marie Curie writes to Roslyn Yalow), mathematics/writing (triangle writes to rectangle), health/writing (digestive system writes to nervous system) and so forth. The strategy is both academic and fun and brings out the best in creativity.

Strategy Source: *Writing As Learning*. Evelyn Rothstein and Gerald Lauber (Skylight Publications, 2000)



STRATEGY: Morphology and Etymology

What is it? -The study of the formation and history of words related to a subject or topic that focuses on word patterns, spelling, grammar, and language history

SLOGAN: Every Word Has A Story

SKILLS ADDRESSED:

- Expanding vocabulary through affixing
- Clarifying the parts of speech of the English language
- Recognizing cognates of English and related languages
- Understanding the phonological and morphological basis of English
- Learning how to create descriptive, meaning-bearing sentences
- Researching the origin of words
- Making the unabridged dictionary a research companion

PREREQUISITES

- Removing (or never teaching) parts of speech shibboleths (e.g. a noun is a person, place, or *thing*)
- Introducing accurate linguistic terms (e.g. affixes, inflections, nouns, verbs, etc.)
- Teaching Defining Format for linguistic definitions
- Having access to the Random House Unabridged Dictionary and Internet resources on language and languages

STEPS INVOLVED

1. Teacher and students take the noun pretest on page 174 of *Writing As Learning* (WAL).
2. Build categories of nouns
3. Build categories of verbs
4. Introduce Sentence Stretchers
5. Define parts of speech
6. Introduce morphology charts
7. Practice different levels of morphology (p. 189 WAL)
8. Introduce the "be" verb
9. Begin etymology study
10. Build Taxonomies of words from different languages and ethnic groups that are used in English
11. Compose stories with words from different languages used in English
12. Write ABC and acrostic stories



STRATEGY: MORPHOLOGY AND ETYMOLOGY CONTINUED

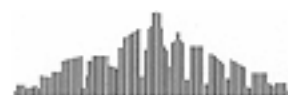
RELATED LEARNING PRINCIPLES

- Learning English grammar accurately (as it really is) improves oral and written communication
- Learners need structure and learning about grammar is learning about structure
- The more words one knows, the more ideas one can grapple with
- Applying learning enhances learning
- Learning through stories heightens interest and appreciation
- Language is culture and relating language with culture expands one's intellect and intelligence

APPLICATION

The study of morphology and etymology is the umbrella under which we learn our alphabet, spelling, word forms, sentence structure, cognates, word play, language history, and whatever else is language related. By learning, for example, the full story of the word "algebra", we learn that it comes from a person named al Khwarazmi), a mathematician from present-day Uzbekistan who had studied the mathematics of the Hindus; he developed that basic principles of what was to become algebra, from the Arabic word al-jabr meaning the "reunion of broken parts", and was an early impetus for the acceptance of the idea of zero in western thought. The word "algorithm" comes from this mathematician's name. Algebra was brought from ancient Babylon, Egypt and India to Europe via Italy by the Arabs.

Strategy Source: *Writing As Learning*. Evelyn Rothstein and Gerald Lauber (Skylight Publications, 2000)



STRATEGY: Who's Who

What is it? –Taxonomies, Profiles, and Frames, and Biographic templates for writing biographies and autobiographies and can be combined with Quotable Quotes

SLOGAN: Know Who You Are and Who You Know

SKILLS ADDRESSED:

- Learning about the humanity who brought us knowledge and understanding
- Understanding the cultural diversity of learners, teachers, and contributors in all fields
- Writing autobiographies, memoirs, and biographies
- Building empathy with others

PREREQUISITES

- Taxonomies, Defining Format, Frames, and Profiles
- Understanding main or thesis statement
- Understanding personal characteristics
- Understanding of contributions and accomplishments
- Some knowledge of research

STEPS INVOLVED

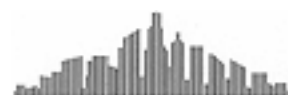
1. Review Taxonomy, Metacognition, and introduce Dual Taxonomy (WAL, p. 93)
2. Introduce Biographic Format and Biographic Profiles (See WAL, chapter 6)
3. Use Personal Profile to start autobiographies
4. Use Frames for autobiographic sketches
5. Combine activities in Quotable Quotes (WAL, chapter 11)

RELATED LEARNING PRINCIPLES

- We often learn by emulating others
- People of inspiration can inspire and motivate
- The human quality in learning enhances our interest
- We often remember a person's words (e.g. "With malice towards none...")
- Whatever we know, we know from human endeavor

APPLICATION

Who's Who covers the curriculum, from stories of anthropomorphic animals (The Little Red Hen), Harry Potter, Harriet Tubman, Samuel Maverick, Amelia Earhart, and the cast of thousands who inspire, teach, accomplish, and sometimes harm and destroy. No book or story can be written without humanity and it is [our] humanity that allows us to learn.



Touching the Spirit

A Framework for Utilizing Culture in the Achievement
of Educational Excellence for African American and Other Students
Whom America's Schools are Failing

What is Touching the Spirit Framework?

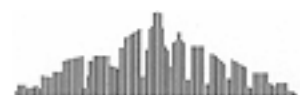
The *Touching the Spirit* framework is based on two areas of research: the culture, history, and language of African American people, and successful teachers of African American students and students of other ethnicities whom our schools are failing to educate to high standards. It was developed in the mid 1990's by Augusta Mann to help teachers in utilizing culture in the achievement of educational excellence for underachieving African American and other students. It includes Five Teaching and Learning Patterns used within the context of Nine Supportive Practices.

A Problem That Need Not Be

We have a problem that need not be. The majority of America's urban schools consistently fail to educate to any degree of excellence large numbers of students, mainly from low-income communities. Studies of successful teachers provide evidence that this wholesale failure is preventable. An analysis of the methods of these teachers, who are of various ethnicities, reveals that their lesson content and educational practices build upon the culture of their students. Their teaching is culturally centered.

In addition to the incorporation of cultural principles, these successful teachers understand that when students are deficient in the skills and knowledge in the standard curriculum, they must be taught at an accelerated pace in order to catch up before they can move forward—a fact many times overlooked by teachers who use the same methods and materials for all students. This essential acceleration requires a different set of teaching and learning models than those presently used in most schools.

If we understand the pervasive influence of culture in human life—how it envelopes and nurtures a particular people and provides them with a “general design for living and patterns for interpreting reality,” it becomes clear why culture “must be the starting point for all learning.” And when we observe even casually the obvious cultural differences among various groups of people in our country, it is clear that their “starting points for learning” need to be different.



A review of the research on successful teachers of African American students provides us with many examples of alternative "starting points". We see that these teachers—who are of various ethnic backgrounds—recognize the important role of culture in education. They understand that a people's sense of reality is grounded in their culture. They know how to connect the content and process of teaching and learning with their students' "...cultural knowledge and their indigenous ways of knowing, learning and being."

In studying the culture of African American people, it is important to note that African Americans, like most groups in America, are culturally complex. But, despite the tremendous variety which exists among them, most African Americans continue to share elements of a common culture. These characteristics are grounded both in African culture and in the experiences of African Americans in North America.

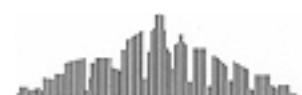
The *Touching the Spirit* framework introduces five teaching and learning patterns—ritual, rhythm, recitation, repetition, and relationships—and nine supportive practices. The principles of the framework, so prominent in African and African American culture, speak to students of all cultures.

The nine practices, including expectations of excellence, insistence on working toward mastery, and intensive direct instruction, combine with the five patterns to accelerate the mastery of reading skills in underachieving students. The rapid expansion of their knowledge base propels students to ever higher levels of achievement.

These patterns and practices flow from the central principle in traditional African and African American culture: *Oneness of Being/Unity of All Things*. This idea is the paramount influence on values, beliefs, behaviors, rituals, customs, and practices. It postulates a universe that is essentially good; a belief in spirit as the strong, alive, vital, cycling, changing, inquisitive force that threads through all things; and the idea of transformation—the push, regardless of adversity, to reach to higher and higher levels of achievement.

Successful teachers learn about their students' history, culture, language, background knowledge, and experiences. They use this information to develop learning activities that empower and engage their students' interest and involvement. The *Touching the Spirit* framework helps guide teachers in these processes. It helps teachers an intrinsic African cultural idea to design educational content and processes that foster excellence in African American students.

Since culture drives education and the core of African and African American culture is "Spirit", to tap the culture of African American students and bring out educational



excellence, teachers must *Touch the Spirit*. They do this by designing curriculum and instruction that includes the five Teaching and Learning Patterns and the nine Supportive Practices.

These 14 components of *Touching the Spirit* are the teaching and learning patterns and practices that effective teachers use. As teachers use the patterns and practices of the framework, so prominent in African and African American culture, they realize that these principles speak to students of all cultures.



Touching the Spirit

Utilizing Culture in the Achievement of Educational Excellence for African American Students

African and African American Teaching and Learning Patterns

Ritual

(Affirmations/performances)

Rhythm

(In music, speech and movement)

Recitation

(Oral performance/memorization)

Repetition

(To enhance meaningfulness)

Relationships

(Relationships of love, respect, and belonging)

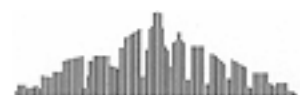
(Recognizing ties between humans and nature)

(Scientific study of patterns in nature and the phenomenal world)

(Making connections between school work and students' life experiences)

Used Within a Context of *Nine Supportive Practices*

- 1) Expectations of Excellence
- 2) Continual Search for Patterns
- 3) Insistence on Working Toward Mastery
- 4) Teacher Modeling of Skills and Processes
- 5) Intensive Direct Instruction and Practice
- 6) Study of African Deep Thought
- 7) Focus on Discourse, Inquiry, and Creative and Symbolic Thinking
- 8) Using Knowledge for Social Criticism and Community Action
- 9) In-Depth Study and Performance of African and African American Culture



STRATEGY: Act-Out Adjectives and Adverbs

What is it? An intensified teaching strategy for accelerated vocabulary development for descriptive words

OVERVIEW

Act-Out Adjectives and Adverbs provides a structure for quick understanding and mastery of a large number of descriptive words for all students, especially those who are behind in meeting standards in vocabulary development. The goal of **Act-Out...** is to help students acquire a vocabulary that enables them to express themselves with more precision and variety. In addition to increasing their word banks for speaking and writing, students' reading comprehension skills are strengthened from the additional word knowledge.

Throughout the year the teacher engages students in mastering the meaning of more than one hundred descriptive adjectives and adverbs through reciting each word and pantomiming an action for it in a rhythmic call and response style (simple props can be used in the pantomimes). Word meanings are discussed and related to students' experiences after the initial pantomime and call and response. The words are illustrated with a definition and a sentence as captions and continually reviewed.

SKILLS ADDRESSED

- Language Development: Accelerated internalization of descriptive words to use for more interesting and precise self expression in oral language and in writing.
- Vocabulary Development: Accelerated study of the meaning of descriptive words for general vocabulary building to support reading comprehension.

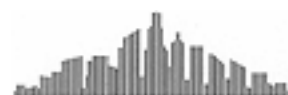
PREREQUISITES

Understanding the power of the use of excellent descriptive language in speech and writing..

STEPS INVOLVED

Before class, the teacher writes a definition and sentence for each word. These will be used in the discussion and illustration of each word on today's list. The teaching process using the word "amazed" as an example:

1. Teacher says the word "amazed!"
2. Students repeat the word "amazed!"
3. With one action, the teacher pantomimes being amazed (mouth open and arms out in amazement at what he is seeing) then freezes while students copy his one action



and freeze. It is important that speaking the word and the pantomime action be done as a rhythmic call and response with no other words spoken. e.g.

Teacher: (points to herself) "amazed!" (spoken with gusto)

Teacher: (points to students)

Students: "amazed!" (spoken on the next full beat after the teacher spoke)

Teacher: (pantomimes being amazed-- one beat)

Students: (pantomime being amazed on the next beat after the teacher's pantomime).

4. Approximately 6 words are acted out at one time. After the pantomime, the words and an illustration with a definition and sentence caption are discussed until mastered..
5. After mastery of each group of words, an additional 6 are acted out and then discussed and illustrated and the first 6 are reviewed etc. .
6. After the teacher models the process of the recitation and pantomime, students can take the role of teacher and lead the class in the actions and pantomime. They can lead the activity for new words or/and for review of the previously introduced words using their illustrations, props and discussion.

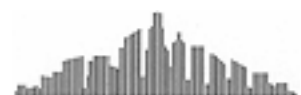
RELATED LEARNING PRINCIPLES

Texts Referenced: Teaching with the Brain in Mind; Touching the Spirit: A Culture-Centered Framework; Mann's Intensified Accelerated Reading System- Module One: Phonics and Vocabulary Building.

- The brain continually seeks patterns
- Rhythm is a pattern
- The use of rhythm, recitation, and repetition can be used to aid memory and reveal patterns.
- There is a significant link between movement and learning.
- We remember that which is emotionally laden.
- Novelty and ritual aid in learning and retention.

APPLICATION

- Many different descriptive words can be used depending on grade level. Some words whose meanings are already familiar to students are interspersed at intervals throughout the list.
- In the beginning, teachers model effective writing and illustration of definitions and sentences for each word. As the use of the strategy continues, students are assisted in writing and illustrating definitions and sentences for each word-the degree of involvement depending on the grade level of students.
- Students are constantly reminded of the expectation for their use of the *Act-Out* words in their speech and writing. They are evaluated on the correct and appropriate use of these words. Various class projects incorporate these words.



- The Descriptive Word Lists in *The Reading Teacher's Book of Lists* are excellent resources when choosing words for this strategy. Below are examples of some words that can be used.
- Students can collect illustrations and sentences for these words in several formats. A class book of illustrations and sentences can be compiled, drawings can be displayed around the room and in the hallways. A school-wide effort could spur collections and review of many of these words and displays of mastery during performances in assemblies, hallway displays etc.
- School-wide drives that encourage students to use these words in their speech and writing can be powerful in implementation efforts.

ACT-OUT ADJECTIVES AND ADVERBS

Example of a Partial List- Grades K-5

Amazed
 Challenging
 Careful
 Calm
 Clever
 Arrogant
 Inexplicable
 Affectionate
 Perplexed
 Furious
 Dignified
 Perilous
 Impatient
 Overwhelmed
 Confident
 Tense
 Frightened
 Gentle
 Shrewd
 Stealthily
 Distinguished
 Brave
 Embarrassed
 Excellent
 Discouraged

Sympathetic
 Nauseated
 Optimistic
 Eager
 Urgent
 Innocuous



Confident

To be confident means to be very certain, very sure of something or someone.

We were confident that we would win the spelling bee..

(picture of some students standing tall with heads held high on stage.)

Perplexed

To be perplexed means to be puzzled, confused or bewildered.

He was perplexed by the difficult math problem, but was confident that he could figure it out.

(picture of a student

at a desk with puzzled look on his face)



STRATEGY: Dancing Definitions

What is it? A teaching strategy for vocabulary and language mastery

Dancing Definitions is a pre-reading teaching strategy that leads to mastery of definitions critical to understanding a text selection that is to be read or a subject that is to be studied. Using inquiry approaches, the teacher engages students in discussions that help them understand the meanings of each of the words. To ensure understanding, students are guided in relating the vocabulary to their experiences and prior knowledge. Only after this step are the definitions and "tag" sentences memorized. Brain and culture-based approaches are incorporated to accelerate memorization.

The clear, concise, expressive language patterns internalized as the definitions and sentences are mastered become models that students can use as references. These language models are especially important for those students who need significant acceleration in the development of language skills to meet literacy standards.

SKILLS ADDRESSED

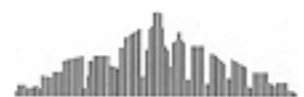
- *Vocabulary Development:* Accelerated study and high retention of definitions.
- *Language Development:* Internalization of language patterns in models of clear concise definitions and example sentences.

PREREQUISITES

General prior knowledge

STEPS INVOLVED

1. Carefully scan a text planned for an upcoming lesson. Identify all the words whose meanings students are not sure of or cannot clearly explain.
2. Divide the words into categories: 1) unfamiliar challenging words; 2) unfamiliar words that have meanings that are easily learned and retained using pictures, demonstrations etc.; and 3) familiar words whose meanings students cannot clearly explain.
3. Choose 8-10 words from categories 1 and 3 for *Dancing Definitions*. (If more than 10 words, then teach in two groups on different days.)
4. By revising and adapting textbook explanations and dictionary and glossary entries, create definitions and tag sentences consistent with the usage of the words in the selection to be read. The tag sentences help relate the word meanings to students' experiences. The definitions "dance" as they are written in a memorable, rhythmic pattern with some restrained, but meaningful physical movements. Write the definitions and tag sentences on chart paper.



5. Using inquiry, discussion, visual aids, internet resources, etc., explore the meanings of the words in categories 1 and 2. Relate these words to students' experiences and prior knowledge, so that they are clearly understood. This is the teaching step.
6. Using rhythm, recitation, repetition, teacher modeling, and continual search for patterns, lead students in the memorization of the definitions and tag sentences. This is the mastery phase. The definitions become a part of students' memory base, available for exact recall in clear concise language.
7. Students memorize eight to ten definitions and tag sentences every two to four days and hundreds during the year.
8. Depending on the grade level students gradually take responsibility for some of the preparation and teaching activities

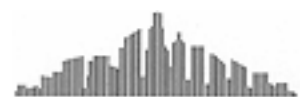
RELATED LEARNING PRINCIPLES

Texts Referenced: *Teaching With the Brain in Mind*, *Phonics and Vocabulary Building—Touching the Spirit*, *Teaching What Matters Most*

- Mastery (as opposed to only explanation and discussion) of vocabulary and language skills as essential to the acceleration of literacy skills for students who are significantly behind.
- The use of rhythm, recitation, repetition, and relationships as culture and cognition- based teaching and learning patterns.
- There is a strong link between movement and learning.
- The continual search for patterns, expectations of excellence, teacher modeling, intensive direct instruction and practice, and focus on discourse and inquiry as supportive practices.
- Memorization of vocabulary meanings to serve as references for reading, writing, and speaking.
- Memorization of excellent language models to internalize their patterns.
- Utilizing culture and cognition in the *acceleration* of learning.
- Novelty and ritual aid in learning and retention.

APPLICATION

- Students demonstrate heightened understanding of a text selection, due to the pre-reading mastery of the word meanings and sentences.
- Students retain the definitions and apply this knowledge when they meet these words in other contexts
- Student writing reflects the transfer of excellent language patterns due to the memorization of numerous definitions and tag sentences.
- Students gain confidence and concentration that fuels continual study and acceleration of mastery of word meanings using various other teaching strategies.



STRATEGY: Essential Summaries

What is it? An intensified teaching strategy for increasing successful reading comprehension of content area texts.

BACKGROUND

Essential Summaries is designed as a support for successful comprehension of content area texts by accelerating the building of essential vocabulary, concepts, and background knowledge prior to reading.

SKILLS ADDRESSED

- Reading comprehension of content area texts
- Summarizing content area information
- Writing summaries of content area information

PREREQUISITES

1. Understanding of the concept of summarization
2. Some minimal background in the subject of the text to be read

STEPS INVOLVED

1. Teacher identifies a written summary of important concepts and information of a chapter, unit or section of a text to be read . These summaries are often found in teachers' guides or student texts at the beginning or end of chapters and units. Appropriate summaries are also found in district and state subject area curriculum guides.
2. The summary is edited so that it contains only essential information, and its length and rhythmic flow make it memorable when read aloud.
3. The summary is written on a chart.
4. Teacher identifies all vocabulary that students will need to know for the text selection. He prepares to introduce these words to students for study.
5. Without giving the students the text **(you want the text to be fresh and engaging for students when you distribute it for the first time after all the pre-reading lessons)** , the teacher introduces the subject of the text, telling how they will soon be studying and reading about this subject. He then discusses the vocabulary for that text using definitions, sentences and examples that help students relate the words to their experiences. (Students may be involved in finding definitions and creating sentences and examples)
6. The following day, with just a sentence or two reminding students as to how they will soon be reading and studying this subject, the teacher, modeling the voice expression of an engaging reader, reads the summary to the class.
7. After reading it once, he turns up the chart to hide the text (or removes the chart from the board where it was taped) and with **WITH NO**



- DISCUSSION** of the chart he just read, he goes on to another classroom activity.
8. The following day, the teacher, after a brief introductory statement—a sentence reminding them how they will be studying this subject----, pulls the chart down and reads it as he did the previous day (with excellent voice expression). After the reading, **WITH NO DISCUSSION**, he just covers the chart again and goes on to another activity.
 9. On the third day, in spite of protests by the students!!!, the teacher repeats the chart reading of the previous two days. Students will, no doubt chime in, having memorized the selection.
 10. After this third reading of the same chart, the teacher engages students in a discussion of the essential information and concepts in the passage. The discussion refers students to the larger textbook selection on the subject. Students are reminded that they are to look for these essential points in the text as they read it.
 11. Teacher guides students in reading the text using one or more of the comprehension strategies taught in the literacy professional development sessions.

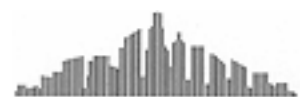
RELATED LEARNING PRINCIPLES

The use of rhythm, recitation and repetition to aid memory and reveal patterns.

- Novelty and ritual aid in learning and retention.
- Some children of certain cultures tend to respond to things in terms of the whole instead of isolated parts.
- Many students who are behind do not have the background knowledge that the curriculum expects---the type of background knowledge that the students of middle income parents have gradually learned since they were very young children.

APPLICATION

- Writing of summaries can be taught using this strategy. Models of excellent summaries are internalized (memorized) using this strategy. These models can then be recalled from memory when writing.
- Students can write summaries of other text selections after guided reading with teacher.
- Many important summaries can be taught using this strategy. It is not time consuming to implement and is powerful in its impact. Teachers can identify a summary for each major concept and bank of information to be taught for the school year. Using the entire *Essential Summaries* strategy, students who are behind would certainly have the advantage of added support for development of excellent comprehension skills.



STRATEGY: Flash Cards for Mastery

What is it? A strategy for accelerated building of fluency for students who are behind. It is a companion strategy to **Highly Recurring Phonic Elements** and **Phonic Pattern Hopscotch**

BACKGROUND

Fluency in decoding is a strong support for excellent comprehension. Students who have been read to since infancy and have been given many opportunities to practice reading in settings outside of school, usually gain fluency faster than students who have not had these experiences. In the ***Intensified Accelerated*** reading process, the use of flash cards for mastery is crucial to helping students who are behind catch up and more quickly develop fluency skills that traditionally take many hours of reading practice to acquire.

The goal of the flash card drill is mastery. With the use of flash cards, the words whose sound symbol relationships had been analyzed and practiced on the chalkboard in previous lessons become sight words. This, together with the chalkboard reading of phrases, sentences, and the first page from the text, aids in faster acquisition of fluency.

SKILLS ADDRESSED

1. Accelerated achievement of fluency in reading words previously analyzed and studied
2. Retaining fluency over a period of time (achieving internalization and automaticity)

PREREQUISITES

- Students have been introduced to the text that they are preparing to read and from which the words being studied were taken.
- Students understand the meaning of the words being studied.
- Understanding of the phonetic and structural analysis of the group of words that are being studied.
- Ability to quickly read the words from the chalkboard.

STEPS INVOLVED

See pages 57-62 and Appendix pages 97-98 in *Mann's Intensified Accelerated Reading System: Phonics and Vocabulary Building Guidebook*

1. Use unlined 3" X 5" white index cards for the flash cards.



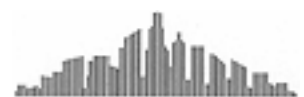
2. Prepare a cover card for the set of flash cards. A cover card is a reference card that is put on top of the set of flash cards that is prepared for each story. All the words (and clues) that are on the flash cards are listed on this cover card.
3. Prepare the flash card set of *three* cards for each word.. On one of the three cards, only the word is written. The other two have the word plus one or more of the phonic clues (written in small print at the top) or phonograms. A pack of flash cards generally has 65-85 cards.
4. The purpose of the flash card drill is mastery—not teaching. Begin the flash card drill only after students can fluently read all the words from the chalkboard (see pages 51-56 in *Phonics and Vocabulary Building Guidebook*).
5. Fanning the cards out in one hand, flash one card to one student at a time. Flash the cards at a very quick pace, forcing students to pay close attention and to recall quickly. Skip around from one child to the next so that students cannot predict who is next.
6. If every student cannot read all of the cards fluently, make a note of the group's progress and stop the lesson. Reintroduce the words on the chalkboard that day or the next using Phonic Pattern Hopscotch and practice until students are fluent. Then go back to the flash card drill for mastery.
7. After students have demonstrated mastery of the words, begin the chalkboard reading of phrases, sentences, and the first page from the text.
8. After this practice, begin guided reading (or another reading process) of the text.

RELATED LEARNING PRINCIPLES

- Texts Referenced: Jensen, E., *Teaching with the Brain in Mind*; Resnick, *Knowing, Learning and Instruction*; Mann, A., *Mann's Intensified Accelerated Reading System, Guidebook: Phonics and Vocabulary Building*
- Reading fluency and comprehension are strongly related.
- Acceleration of the development of fluency is important if students who are behind are to catch up. Flash card drill accelerates the building of fluency that normally takes many hours of reading practice to gradually acquire.
- Mastery of basic skills forms a needed foundation upon which to build excellent comprehension skills.
- Experiencing mastery builds confidence and motivation.

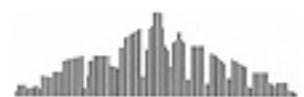
APPLICATIONS

- When previously poor readers and have mastered the meanings of the words and concepts of a text and have acquired fluency their overall comprehension of that text dramatically improves. As students gain confidence and skills and are introduced to quality multicultural literature,



their independent reading increases and they are able, many for the first time in their school career, to successfully read books of their choice. And, of course, this independent reading is a strong factor in all further development of fluency and all reading skills.

- Flash cards are never used for rote learning of words. Words are always first taught using the phonic and structural analysis process of *Phonic Pattern Hopscotch* and the chalkboard drill and practice.
- For additional applications, see the Intensified Accelerated Guidebook and videotape: Phonics and Vocabulary Building.



STRATEGY: Good and Better

What is it? An intensified teaching strategy for accelerated writing and language development

SKILLS ADDRESSED:

- Increases understanding of the role and effectiveness of descriptive adjectives and adverbs. (*Vocabulary Development*)
- Provides models of excellent word choice, specifically the use of expressive and precise language in narrative and expository texts. (*Language and Writing Development*)
- Develops an awareness of author's style as a feature in writing. Learns from Produces internalization of excellent models of various styles of writing which can then be used as references for students' own writing. (*Development of Writing Style*)

PREREQUISITES:

1. Ongoing mastery of the meanings of large numbers of descriptive words, chosen from a wide variety of sources.
2. Ideally having prior experience with teacher-led analysis of vocabulary and language of excellent writing selections.

STEPS INVOLVED:

1. Choose a well-written narrative text (include expository text later) and identify two consecutive sentences that have excellent descriptive language. These are the "BETTER" sentences. (**Note:** use only texts that have been read to the students or that they have read themselves.)
2. Keeping the same meaning and language patterns, rewrite the sentences, substituting less expressive, precise, and engaging language. These are the "GOOD" sentences (see examples in addendum).
3. Make two charts,(one chart for each sentence) each with a "GOOD" sentence and its companion "BETTER" sentence.
4. Engage students in follow- practice activities (see APPLICATION below).

****SEE ADDENDUM FOR DETAILED STEPS OF THE TEACHING PROCESS

RELATED LEARNING PRINCIPLES:

Texts Referenced: *Teaching With the Brain in Mind*, *Mann's Intensified Accelerated Reading System—Module One Phonics and Vocabulary Building—Touching the Spirit, a Framework for Culture-Centered Education; Teaching What Matters Most*



- The brain continually seeks patterns.
- The use of rhythm, recitation, and repetition as principles reflected in African American and other cultures to reveal patterns in language and to aid memorization.
- Memorization of models of excellence (wholes) in order to internalize their patterns.
- Utilizing research in culture and cognition as it relates to the acceleration of learning.
- Brain-based research on the use of novelty and ritual in learning.
- Learning from contrast of examples and non examples.
- The use of modeling, coaching, and fading.

APPLICATION:

- "BETTER" sentences are collected and lists of their descriptive words and phrases are compiled and studied.
- Teacher supplies a list of "GOOD" sentences and students work together using their individual and class vocabulary lists to change them to "BETTER".
- A class "Good and Better" loose leaf notebook becomes a collection of sentences from all students.
- In peer review teams, students assess and edit their writing, coaching each other on the use of descriptive vocabulary.
- Students identify examples of "BETTER" sentences in quality literature and subject area texts and demonstrate their awareness of excellent descriptive words as they change the sentences from "BETTER" TO "GOOD".

ADDENDUM

I: PREPARATION FOR THE LESSON

Example of a Narrative Text Selection

Step 1. Two sentences from the first page of the novel Zeely by Virginia Hamilton are written on the board or chart.

*There was an awful racket and swoosh
as the books John Perry carried slipped
out of his arms and scattered over the floor.
The voice of his sister, Elizabeth, echoed through the huge waiting
room.
Her mother shushed her.*

Step 2. Two "Good and Better" charts of the sentences from the Zeely excerpt are attached to the board with their lower halves turned up as a cover. The charts are approximately 24" X 36" written in large print with letters at least three quarters



of an inch tall. They are placed so that all students can easily see them. On the top of each chart the word "GOOD" is written in capital letters as a heading. Then the edited sentence is written. The heading "BETTER" is written half-way down the chart. Under this heading is the original *Zee/y* sentence. The "GOOD" is a sentence that retains the exact meaning of the original sentence, but the writing is less descriptive, precise and interesting.

First Chart:

GOOD

There was a lot of noise as the books
John Perry carried fell on the floor.

BETTER

There was an awful racket and swoosh
as the books John Perry carried
slipped out of his arms
and scattered over the floor.

Second Chart:

GOOD

You could hear his sister's voice
all over the room.
Her mother told her to be quiet.

BETTER

The voice of his sister, Elizabeth,
echoed through the huge waiting room.
Her mother shushed her.

II: INTRODUCTION OF LESSON TO STUDENTS

******IMPORTANT:**

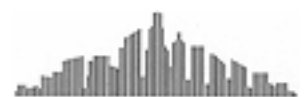
The teacher does not introduce or explain the strategy. He/she does not tell the students what she/he is going to do. The explanation and discussion comes only after three days of demonstration/performance.

Example:

OK, class, remember the novel *Zee/y* that we just finished reading last week. (holds up a copy of the book).

Here are some sentences from the first page. (she points to the two sentences from *Zee/y* that she has copied on the board or chart)

(She asks the students to read it with her.)



(She then points to the covered charts.)

IMPORTANT: (No introduction or explanation is given at this point. Teacher just begins the performance.)

III: THE RECITATION AND REVEALING OF THE FIRST CHART WITH CONTRAST BETWEEN SENTENCES

(He peels down the top chart and smoothly retapes it over the "bottom" sentences then, using a pointer, slowly reads with expression -careful not to speak too fast)

Or-di-na-ry student writing might say-y-y-y-y-

*There was a lot of noise as the books
John Perry carried fell on the floor.*

Well, OK—that-t-t-s-s-s good...

(then dramatically she/he says:)

"Oh! What's this?"

(she slowly reveals the BETTER chart and using the pointer, reads it slowly with expression)

*There was an awful racket and swoosh
as the books John Perry carried slipped out of his arms and scattered over
the floor."*

(she turns to the class and smiles)

"Oh! That's Better!"

IV: AFFIRMATION OF THE CONTRAST BETWEEN SENTENCES

(Using a very deliberate slow rhythm, she points to the "GOOD" heading.

In unison, she and the class say "Good!").

(She points to the "BETTER" heading and in unison, she and the class say "Better!")

(Then she points to the phrases in each sentence, and using a slightly rhythmic style, reads them to the class--accenting the underlined words. She reads slowly with feeling)

(points to top half of chart)

There was a lot of noise ----GOOD

(points to the lower half)



There was an awful racket and swoosh ---BETTER.
 (points to the top half of chart)
 as the books John Perry carried fell on the floor. --GOOD
 (points to the lower half)
 as the books John Perry carried slipped out of his arms and scattered over the floor.---BETTER

V. THE RECITATION AND REVEALING OF THE SECOND CHART WITH CONTRAST BETWEEN SENTENCES

(Then, without discussion, she moves to the next set of sentences from *Zeely*. Using the same recitation as with the first pair.)
 Um_m-m-m..Look at this...
Or-di-na-ry student writing might say-y-y-y-y:
 (she pulls down the lower half of the GOOD chart and reads it)
You could hear his sister's voice all over the room.
Her mother told her to be quiet.
 Well, OK—that-t-t-s-s-s good....
 Now let's make it bet--ter!"
 (She reveals the BETTER chart and reads it)
"The voice of his sister, Elizabeth,
echoed through the huge waiting room.
Her mother shushed her."
 O-o-oo , that's Better!

VI: AFFIRMATION OF THE CONTRAST BETWEEN SENTENCES

(She points to the "Good" sentence, but doesn't read it. In unison she and the students say "Good!".
 Then she points to the "Better" sentence and they all say , "Better!".)
 (Then, just as she did with the first pair of sentences, she points to the phrases, and using a slightly rhythmic style, reads them to the class—with good voice expression---NOT TOO FAST--accenting the underlined words,)
 (top half of the chart)
You could hear his sister's voice
all over the room--GOOD
The voice of his sister, Elizabeth,
echoed through the huge waiting room.--BETTER
 (bottom half of the chart)
Her mother told her to be quiet----GOOD
Her mother shushed her-----BETTER



VII: END OF LESSON

(After pausing just a few seconds as he looks at the chart, the performance/demonstration is over. The lesson ends with no discussion-none!
Not one word of follow-up. The performance is over!

The teacher just takes the charts down or covers them and begins an entirely different lesson or activity.) IT IS VERY IMPORTANT THAT THERE IS NO DISCUSSION UNTIL AFTER THE THIRD DAY OF PERFORMANCE/DEMONSTRATION.

VIII: THE SECOND AND THIRD DAY

Then the next day she puts the same *Zeely* charts up with the lower half pulled up over the top half with the exact same process as the day before. Then when finished, still no discussion on the second day. No discussion at all. None.)

(The third day----the same charts on the board and the same process and recitations. She knows that she must go through the entire process this third day, even though the students will may protest. The teacher doesn't let the students' protests stop him or her from completing the entire third day of recitation with both charts.

By now, of course, the students have memorized all the sentences and have internalized the refrains of "Good" and "Better" and "Well, OK—that-t-t-s-s good..." Now let's make it bet---ter!" and they join in as the teacher goes through the whole process.

IX: THE DISCUSSION

(After the third day of repetition, teacher and the students discuss and analyze the differences between the sentences in each pair e.g. the author's use of figurative language, the descriptive language that adds precision, and interest, the author's choice of words that help the reader form pictures in their minds. They discuss how the teacher expects that the descriptive vocabulary that they have been studying will be used in students' writing and speech. Then those charts are posted on the wall to be used as references.



X: THE SECOND SERIES WITH A DIFFERENT TEXT

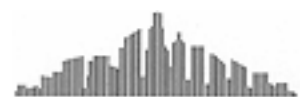
She displays the charts on the wall to serve as references and reminders. Then she follows the exact same three-day process with another set of sentences from a narrative text. For example:

XI: THE THIRD SERIES WITH ANOTHER DIFFERENT TEXT

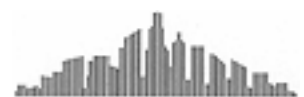
Then to complete the series,
she follows the exact same three-day process with sentences from an expository text.

EXAMPLES OF NARRATIVE AND EXPOSITORY "GOOD AND BETTER" SENTENCES

- **GOOD:** Fern moved a chair and ran out.
BETTER: (p.1 of *Charlotte's Web* by E.B. White)
Fern pushed a chair out of the way and ran outdoors.
- **GOOD:** Fern's sneakers were wet when she got to her father.
BETTER: Fern's sneakers were sopping by the time she caught up with her father.
- **GOOD:** Lunch carts fell. Food was all over the floor.
BETTER: (p. 38 *Curious George Goes to the Hospital* by Margret and H.A. Rey)
Lunch carts tumbled. Spinach and scrambled eggs and strawberry jam were all over the floor.
- **GOOD:** When I was a girl we lived in a house with a porch: me, my Mama and Daddy and my Great-grandmother.
BETTER: (introduction of *The Lucky Stone* by Lucille Clifton)
When I was a girl we lived all together in a house with a big wrap-around porch: me, my Mama and daddy and my Great-grandmother, Mrs. Elzie F. Pickens.
- **GOOD:** Erandi got up, washed up, and put on her clothes.
BETTER: (p. 2 of *Erandi's Braids* by Tomie dePaola)
Erandi got out of bed, washed her face, and put on her huipil and skirt.
- **GOOD:** We went down a street.
BETTER: (From p. 79 *Freedom's Children* by Ellen Levine)
We went down a little side street by Kelly Ingram Park.
- **GOOD:** And went a little ways



- BETTER:** (From p. 79 *Freedom's Children* by Ellen Levine)
and marched about half a block
- **GOOD:** A long time ago in Africa
BETTER: (From p.1 *Mufaro's Beautiful Daughters* by John Steptoe)
A long time ago, in a certain place in Africa
 - **GOOD:** A village was across a river and a long ways from a city where a king lived.
BETTER: (From p.1 *Mufaro's Beautiful Daughters* by John Steptoe)
A small village lay across a river and half a day's journey from a city where a great king lived
 - **GOOD:** She had a nice voice and sang every morning
BETTER: (From p.9 *Only Passing Through, The Story of Sojourner Truth* By Anne Rockwell) She had a beautiful singing voice and sang out with joy every morning.
 - **GOOD:** She left her bike
BETTER: (p. 6 *Jamaica Tag-Along* by Juanita Havill)
She parked her bike by the bushes
 - **GOOD:** and went to the school to look.
BETTER: and crept to the corner of the school building to watch.
 - **GOOD:** My stomach makes noises because we didn't have any breakfast.
BETTER: (From p.2 *More Than Anything Else* by Marie Bradby)
My stomach rumbles, for we had no morning meal.
 - **GOOD:** *When he was a student in France, he was upset by an event that happened.*
BETTER: from *Exploring World History* Published by Globe
When he was studying in Strasborg, in Northeastern France, he was shaken by an uprising that took place there.
 - **GOOD:** The red wolf once lived all over the country.
BETTER: from *Wolves* by Seymour Simon
The red wolf once numbered in the thousands and roamed all over the southeastern United States.



STRATEGY: Highly Recurring Phonic Elements and Phonic Pattern Hopscotch with Phonic Pattern Word Lists

BACKGROUND

Students who are significantly behind in reading achievement need to quickly master a knowledge base and a process upon which they can call to become proficient in decoding large numbers of words at an accelerated pace. *The Highly Recurring Phonic Elements* are a set of phonic patterns that occur with high frequency in the most common words in written material in English. The application of these patterns is practiced using the strategy *Phonic Pattern Hopscotch*.

Once students are taught the *Highly Recurring Phonic Elements* and the process, *Phonic Pattern Hopscotch*, they quickly learn to read hundreds of words with various phonic patterns and syllables.

SKILLS ADDRESSED

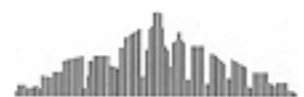
- Mastery of sound symbol relationships for a set of high utility phonic elements.
- Decoding large numbers of words using knowledge of a set of highly recurring phonic elements.
- Understanding of some of the major patterns of English that lead to generalizations about decoding all words.
- mastery of decoding of lists of words with the same common phonic element.

PREREQUISITES

1. Knowledge of consonant sound/symbol relationships
2. Conceptual understanding of the meaning and relationships among letters, sounds, and words in spoken and written language.
3. Knowledge of the meaning of the words to be decoded.

STEPS INVOLVED

1. Over a period of about a week, the teacher explains all the chart's letter patterns and their corresponding sounds and key pictures. As each pattern is introduced, several examples are given of words that have the same pattern in the initial, median or final positions. Example: When introducing the symbol and picture for the sound, /un/, the words *uncle*, *until*, *funny* and *sun* are written on the board and analyzed.
2. After the overview of the chart is completed, the teacher leads the students in a recitation of the names of the reference pictures and the sounds for each of the phonic elements. Starting with /er/, /ir/, /ur/, and



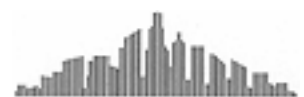
- /st/, and adding approximately two to five sounds a day, continually review the sounds already introduced as you lead students through the recitation of the entire chart. The objective of this recitation practice is the eventual memorization of all of the HR Phonic Elements. The teacher is not teaching for mastery of the chart during this first recitations. Students will gradually memorize all of the sound/symbol relationships as the intensive recitations continue over a period of weeks. These recitations lessen in intensity and frequency as students begin to master the entire chart.
3. The teacher refers to the HR Phonic Elements Chart during the introduction of all new words using Phonic Pattern Hopscotch.
 4. Additional intense practice is provided using Phonic Pattern Word Lists. These are lists of words with the same phonic element, made up of words from students' readers, trade books, subject area texts etc.
 5. Phonic Pattern Hopscotch is process for decoding words starting with patterns that students know from the Highly Recurring Phonic Element chart. The pattern that are familiar are presented first and then the remaining consonants and vowel elements are added in either direction, to front and back to complete the word.

RELATED LEARNING PRINCIPLES

- In order to catch up, students who are behind need accelerated learning of the decoding skills that support excellent comprehension.
- The brain constantly seeks patterns. Highly Recurring Phonic Elements and Phonic Pattern Hopscotch help students develop the habit of continually looking for phonic patterns in words.
- Some cultures tend to respond to things in terms of the whole instead of isolated parts.
- Learning from experts by modeling their problem solving processes.
- Children from some cultures prefer "vervistic" learning experiences.

APPLICATION

- In *Phonic Pattern Hopscotch* avoid introducing the initial sounds of the words first. Begin with phonic elements that students know from the Highly Recurring Phonic Element Chart.
- Refer to the video tape and guidebook: Mann's Intensified Accelerated Reading System: Vocabulary and Phonics for additional details and implementation cautions and finer points.



STRATEGY: Thinking Maps - Tools for Learning

The Thinking Maps are a common visual language based on FUNDAMENTAL COGNITIVE PROCESS that is transferable across disciplines and among grade levels. Administrators, parents, teachers and students use this toolkit to facilitate content learning, reading comprehension, decision-making, problem-solving, written and verbal communication and knowledge creation. Used together as a language, whole schools apply these graphically and cognitively consistent, flexible tools to support students' continuous cognitive development through their entire schooling career and to promote the development of a collaborative professional learning community.

SKILLS ADDRESSED: 8 FUNDAMENTAL COGNITIVE SKILLS

Each thinking skill is paired with a graphic primitive map. **Page 1-9 manual**

DEFINING IN CONTEXT

DESCRIBING

COMPARING AND CONTRASTING

CLASSIFYING

SEQUENCING

CAUSE AND EFFECT REASONING

PART-WHOLE RELATIONSHIPS

SEEING ANALOGIES

STEPS INVOLVED IN BUILDING THINKING FLUENCY

1. Introducing the maps: Teachers model one map/ week to the students introducing the cognitive vocabulary attached to that particular graphic. Students immediately practice the map and skill.
2. Shared Responsibility: After the introductory period, teachers should continue to emphasize the thinking vocabulary that occurs in content to help students identify the thinking process. Teachers should coach students to find key words in text and ask, "What kind of thinking? Which map(s) could we use? How can we think about this?" Students can start selecting the appropriate thinking depending on the task?
3. Student Ownership: Students build fluency with their thinking by selecting appropriate maps based on the thinking skills they are performing.
4. Student Fluency: Students use multiple-maps to process information.

Strategy source: see *Thinking Maps: Tools for Learning Manual* by David Hyerle



STRATEGY: Thinking Map - The Frame

SKILLS ADDRESSED

COGNITIVE SKILL: CONTEXT AND PERSPECTIVE

- Answering the questions: What prior knowledge, experiences, emotions, customs, beliefs, values and cultural influences are shaping my understanding of this thing, idea, topic or concept? From what perspective am I viewing and understanding this thing? How do I know what I know? Where did I get my ideas? What other perspectives exist?
- Frame of reference and point of view
- identifying sources, influences, motivations
- establishing and recognizing personal bias, lenses, angles or filters

PREREQUISITES

- Graphic and purpose must be familiar to students
- Students understand terms such as: perspective, source, influences, etc.
- Students have practice with reflection and thinking beyond the surface.

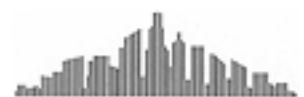
POSSIBLE APPLICATIONS

1. Examining multiple perspectives from history, literature, political issues/stances
2. Evaluating and questioning sources of information
3. Pre-Writing tool for persuasive essays, diaries, journals, point of view writings

STEPS INVOLVED

1. Teachers or students can place a Frame of Reference around any map at any time during instruction.
2. Students should examine the information that already exists on the map and ask themselves, "Why do I think about it in that way? What is influencing or shaping my understanding?" Or ask any of the other frame questions mentioned above.
3. Students should record their ideas in the Frame of Reference around the outside of the map. Students could:
 - prioritize, assess, question or categorize the influences
 - Try to identify which perspectives or points of view are missing
 - Identify which filters seem to dominate: emotional, spiritual, familial, political
4. Students should think how someone else might perceive the same topic. Look at the topic from another point of view with a new frame of reference.

RELATED LEARNING PRINCIPLES



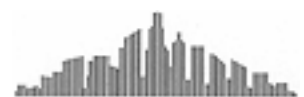
LANGUAGE AND CULTURE Using the Frame helps teachers and students understand what they value, where they are from and why they think the way they do about information and issues. Surfacing frames of reference on paper, allows self and others an opportunity for depth of personal understanding and openness in dialogue. Literally, "I see where you are coming from."

- Self discovery and connection to support meaning making.
- Visually representing thoughts in order to manipulate, disaggregate, and construct articulate composition.
- Modeling and scaffolding reflection and metacognition.

APPLICATION

The Frame of Reference is a powerful thinking process to overlap with any and all of the other thinking processes. Students will need help identifying the terms associated with values, beliefs, etc at the beginning to understand the frame. Students must engage and reflect about the thoughts behind the ideas. With more practice, over time, students should be able to, not only, identify influences which are at work, but to evaluate and prioritize those influences. Students should understand patterns of influences from culture to culture and also some universal factors that seem to color or shape various issues. The Frame is a dynamic tool to accelerate moral development by constantly giving attention to perspective taking.

Strategy source: see *Thinking Maps: Tools for Learning Manual* by David Hyerle



STRATEGY: Thinking Map - Bubble Map

SKILLS ADDRESSED

COGNITIVE SKILL: DESCRIBING

- Answering the questions: What are its attributes, qualities, traits, characteristics and properties? How would you describe this thing? What does it look like, feel like, etc?
- Describing using adjectives: sensory, emotional /aesthetic, and logical qualities
- Vocabulary development and enrichment
- Distinguishing between fact and opinion
- Improving observation skills in science and vivid language use in writing

PREREQUISITES

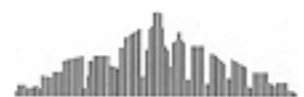
- Graphic and purpose must be familiar to students
- Students understand senses and words related to emotions
- Bubble Map must be used for **Describing only**, not brainstorming. NOT A WEB!

POSSIBLE APPLICATIONS

- Developing synonyms and adjective formation
- Inference tool
- Character/Biographical Analysis
- Notetaking for science observation
- Pre and Post assessment tool for before and after a learning episode
- Pre-writing tool for descriptive writing or character sketch before sequencing (Flow Map)

STEPS INVOLVED

1. Teacher or students decide on an object, event, thing to be "qualified" and place that word in the center bubble of the Bubble Map.
2. Students individually, in partners, groups or as a whole class generate words to describe that thing by using sensory words(rough, striped), emotional words(dangerous, threatening) and logical (heavy, large). Those words are added one word/bubble as they are generated.
3. Teacher might have to ask follow-up questions like, What does it look like, feel like, etc to help students or use a concrete object to describe to support the use and understanding of adjectives or adjective phrases.
4. Depending on the purpose/direction of the lesson and on the information in the Bubble Map, students could:
 - write a sentence using several adjective phrases that describes the topic



- categorize the qualities on a Tree Map with color coding
 - frame the Bubble Map to provide evidence to support the adjectives stated
 - sort qualities into fact or opinion
5. Students should revise the Bubble Map as they learn new information and refer to it when composing writing or giving oral presentations. They could use different colors each time they update the information to see what they had learned over time. Great, ongoing assessment tool.

RELATED LEARNING PRINCIPLES

LANGUAGE AND CULTURE: using sensory, emotional, and logical attributes thus reinforcing the discussion of what one values and meanings carried by particular word choice. Valuing and evaluating context.

- Connotation and denotation of words.
- Providing evidence for opinions.
- Visually representing thoughts in order to manipulate, disaggregate, and construct articulate composition.
- Modeling and scaffolding information processing and metacognition.

APPLICATION

The Bubble Map can be used across all grade levels and content areas. Like all Thinking Maps, the teacher should model the use of the map, making sure to emphasize the thinking process involved. Teachers should then give guided practice with support of partners and groups before moving into individual applications. Students should be able to construct their own Bubble Maps whenever they need/want to record or generate descriptive language.

Strategy source: see *Thinking Maps: Tools for Learning Manual* by David Hyerle



STRATEGY: Thinking Map - Double-Bubble Map

SKILLS ADDRESSED

COGNITIVE SKILL: COMPARING AND CONTRASTING

- Answering the questions: How are these things, ideas, etc similar and different? How are they alike? What are the corresponding qualities to compare and contrast? Are they more alike or different? What are the most important qualities that are similar and different?
- Vocabulary development and enrichment
- Distinguishing between fact and opinion

PREREQUISITES

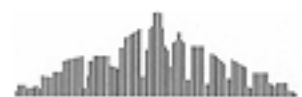
- Graphic and purpose must be familiar to students
- Students understand cognitive terms similar/different and compare/contrast
- Double-Bubble Map must be used for **Comparing and Contrasting**

POSSIBLE APPLICATIONS

- Comparing and contrasting characters, cultures, historical figures, emotions, creatures, systems, time periods, etc.
- Pre and Post assessment tool for before and after a learning episode
- Pre-writing tool for compare and contrast essay

STEPS INVOLVED

1. Teachers or students decide on two things to compare and contrast, and write those two words in bubbles somewhat spaced and centered on the page.
2. Students individually, in partners, groups or as a whole class record the similarities in bubbles located between the two things being compared. Make sure the similarity is connected by a line to each thing being compared. Use color coding(3 colors) to help distinguish between similarities and differences.
3. On the outside of each thing being compared/contrasted, record the things that are different. One line should connect the word to the thing it represents.
4. Depending on the purpose/direction of the lesson and on the information in the Double-Bubble Map, students could:
 - prioritize the comparison by finding the most important similarities and differences and color-coding them
 - frame the Double- Bubble Map to provide evidence to support the thoughts



- sort ideas into fact or opinion
 - create a metaphor or an analogy (Bridge Map) from the comparison
5. Students should revise the Double-Bubble Map as they learn new information and refer to it when composing writing or giving oral presentations.

RELATED LEARNING PRINCIPLES

LANGUAGE AND CULTURE: The way one evaluates and compares and contrasts information will be different depending on what they perceive, how they have experienced it and what they value.

- Providing evidence for opinions.
- Visually representing thoughts in order to manipulate, disaggregate, and construct articulate composition.
- Modeling and scaffolding information processing and metacognition.

APPLICATION

The Double-Bubble Map can be used across all grade levels and content areas. Like all Thinking Maps, the teacher should model the use of the map, making sure to emphasize the thinking process involved. Teachers should then give guided practice with support of partners and groups before moving into individual applications. Students should be able to construct their own Double-Bubble Maps whenever they need/want to compare and contrast two things.

Strategy source: see *Thinking Maps: Tools for Learning Manual* by David Hyerle



STRATEGY: Thinking Map - Flow Map

SKILLS ADDRESSED

- **COGNITIVE SKILL: SEQUENCING**
- Answering the questions: What is the sequence, order or process of this thing or event? How can I sequence this information or these ideas? What happened first, next, last?
- order, processes, procedures, cycles, chronology, timelines, plot
- transition words: first, then, next, finally ,etc.

PREREQUISITES

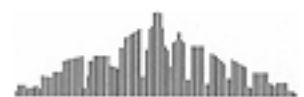
- Graphic and purpose must be familiar to students
- Students understand terms: sequence, procedure, timeline, order, plot
- Flow Map must be used for **Sequencing**

POSSIBLE APPLICATIONS

- plotting or retelling stories, events in history, or life cycles
- planning an event or writing piece
- predicting what will happen next
- Pre and Post assessment tool for before and after a learning episode
- Pre-writing tool for paragraph writing

STEPS INVOLVED

1. Teachers or students are learning a particular concept that lends itself to sequencing.
2. Students individually, in partners, groups or as a whole class continue to discuss, read, or explore a subject area and put one idea per box arranging them in order.
3. Depending on the purpose/direction of the lesson and on the information in the Flow Map, students could:
 - look for better or other ways to sequence information
 - frame the Flow Map to provide evidence to support the thoughts
 - look for substages to add, reposition or combine into a major stage
 - look to see if they can synthesize the steps
 - combine the Flow Map with the Multi-flow map to predict effects
4. Students should revise the Flow Map as they learn more information and see the most efficient way of representing the cycle or timeline or procedure to construct a coherent sequence.



RELATED LEARNING PRINCIPLES

LANGUAGE AND CULTURE: Different cultures will view time, steps in a procedure or patterns differently depending on their context.

- Seeing patterns.
- Planning, anticipating obstacles, readjusting and following through.
- Visually representing thoughts in order to manipulate, disaggregate, and construct articulate composition.
- Modeling and scaffolding information processing and metacognition.

APPLICATION

The Flow Map can be used across all grade levels and content areas. Like all Thinking Maps, the teacher should model the use of the map, making sure to emphasize the thinking process involved. Teachers should then give guided practice with support of partners and groups before moving into individual applications. Students should be able to construct their own Flow Maps whenever they need/want to sequence information in order to understand it.

Strategy source: see *Thinking Maps: Tools for Learning Manual* by David Hyerle



STRATEGY: Thinking Map - Tree Map

SKILLS ADDRESSED

COGNITIVE SKILL: CLASSIFYING

- Answering the questions: How can I group or categorize these things? What other things belong in this category? Does a thing or idea fit into more than one category? What are the ways to classify these things? What are the types of things?
- What is the main idea and what are the supporting details?
- Compare and contrast
- Identifying qualities
- Hierarchies, taxonomies, themes

PREREQUISITES

- Graphic and purpose must be familiar to students
- Students understand terms: classify, sort, group, categorize, main idea, details
- Tree Map must be used for **Classification**

POSSIBLE APPLICATIONS

- Classification of living things, taxonomies
- Grouping vocabulary words, categorizing sounds and spelling rules
- Notetaking for report writing
- Pre and Post assessment tool for before and after a learning episode
- Pre-writing tool for paragraph writing

STEPS INVOLVED

1. Teachers or students are learning a particular concept and can group similar ideas together and name that category which is one branch of the Tree Map.
2. Students individually, in partners, groups or as a whole class continue to discuss, read, or explore a subject area and look for more ways to group information. As they discover patterns, they should group them into more categories and subcategories. Students can use color coding to separate the categories.
3. Depending on the purpose/direction of the lesson and on the information in the Tree Map, students could:
 - look for items that belong to more than one category
 - frame the Tree Map to provide evidence to support the thoughts
 - look for a way to reclassify the information



4. Students should revise the Tree Map as they learn more information and see what categories they need to find more information about before using it as a prewriting or speaking tool.

RELATED LEARNING PRINCIPLES

LANGUAGE AND CULTURE: Different cultures will categorize, re-categorize and use different words for categorizing depending on what influences their perspectives.

- Making connections and reconceptualizing information.
- The more ways information is encoded, the easier the retrieval process, thereby improving memory and retention.
- Visually representing thoughts in order to manipulate, disaggregate, and construct articulate composition.
- Modeling and scaffolding information processing and metacognition.

APPLICATION

The Tree Map can be used across all grade levels and content areas. Like all Thinking Maps, the teacher should model the use of the map, making sure to emphasize the thinking process involved. Teachers should then give guided practice with support of partners and groups before moving into individual applications. Students should be able to construct their own Tree Maps whenever they need/want to classify objects, ideas, systems, etc.

Strategy source: see *Thinking Maps: Tools for Learning Manual* by David Hyerle



STRATEGY: Thinking Map - Brace Map

SKILLS ADDRESSED

COGNITIVE SKILL: WHOLE TO PART RELATIONSHIPS OF PHYSICAL OBJECTS

- Answering the questions: What are the parts of this whole object or concrete thing? What are the major, minor, and subparts that make the whole?
- analyzing discrete physical parts and components of something
- spatial reasoning, structural analysis
- dissection, anatomy

PREREQUISITES

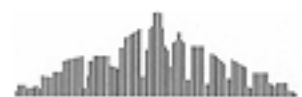
- Graphic and purpose must be familiar to students
- Students understand terms: whole, part
- Brace Map must be used for **Whole to Part or Part to Whole** thinking
- **Brace Map is not a Tree Map on its side. Brace=physical, Tree=abstract**

POSSIBLE APPLICATIONS

- parts of a computer or other mechanical thing
- human body, house, flower
- Pre and Post assessment tool for before and after a learning episode
- Pre-writing tool for paragraph writing

STEPS INVOLVED

1. Teachers or students are analyzing the anatomy or spatial relationships of a concrete, physical object. The name of the object goes on the line representing the whole.
2. Students individually, in partners, groups or as a whole class continue to discuss, read, or explore the object looking for the parts and their position to the whole. As they find subparts, they should draw a brace of f the major and add it to the map.
3. Depending on the purpose/direction of the lesson and on the information in the Brace Map, students could:
 - look for ways this thing could be put together differently
 - frame the Brace Map to provide evidence to support the structure
 - compare the structure of this thing to another object or system to understand its organization and function by using a Double-Bubble or Bridge map.
4. Students should revise the Brace Map as they learn more information and see if general rules or patterns exist in spatial relationships.



RELATED LEARNING PRINCIPLES

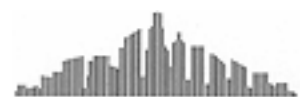
LANGUAGE AND CULTURE: Different cultures will see different parts, subparts, and wholes based on how that object is used or what significance it holds in their personal context.

- Visually representing thoughts in order to manipulate, disaggregate, and construct articulate composition.
- Modeling and scaffolding information processing and metacognition.

APPLICATION

The Brace Map can be used across all grade levels and content areas. Like all Thinking Maps, the teacher should model the use of the map, making sure to emphasize the thinking process involved. Teachers should then give guided practice with support of partners and groups before moving into individual applications. Students should be able to construct their own Brace Maps to illustrate their understanding of whole-part relationships of a concrete, physical object.

Strategy source: see *Thinking Maps: Tools for Learning Manual* by David Hyerle



STRATEGY: Thinking Map - Bridge Map

SKILLS ADDRESSED

COGNITIVE SKILL: SEEING ANALOGIES

- Answering the questions: What is the similar relationship between these two relationships? How does this system or relationship remind me of another relationship? How are these words related?
- making metaphors, connections across content and universal themes

PREREQUISITES

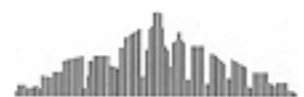
- Graphic and purpose must be familiar to students
- Students understand terms: similarities, analogy, simile, metaphor
- Students should be instructed to look at the qualities, functions, processes of things to help find relationships.
- Bridge Map must be used for **Seeing Analogies**

POSSIBLE APPLICATIONS

- Vocabulary development
- Connecting prior knowledge to new knowledge for conceptual understanding
- Pre and Post assessment tool for before and after a learning episode
- Finding a guiding metaphor or analogy for writing

STEPS INVOLVED

1. Teachers or students are learning a particular concept and groups can look for relationships within that concept and how that reminds them of another system.
2. Students individually, in partners, groups or as a whole class identify the relating factor that links the relationship and write that word that bridges the connection to the line of the left.
3. Students should write their first pair of words that relate to each other on the top and bottom of the left side of the bridge.
4. Students should write the next pair of words that relate to each other in the same way that the first pair relates on the right side of the bridge in the top and bottom format.
5. Read the bridge map from top to bottom with the relating factor in the middle. For example, electrons revolve around the nucleus, just as the Earth revolves around the sun. Electrons and nucleus are one pair and Earth and sun are the other pair. They have the same relationship, "revolve".
6. Depending on the purpose/direction of the lesson and on the information in the Bridge Map, students could:



- look for other pairs of things across content areas that share the relationship in order to solidify the concept
 - frame the Bridge Map to show the influences shaping the relationships
4. Students should revise the Bridge Map as they extend it to see if all the pairs really relate in the same way. Students should try to refine the relating factor through discussion and qualification of their thoughts.

RELATED LEARNING PRINCIPLES

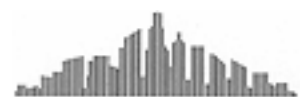
LANGUAGE AND CULTURE: Analogies and metaphors are often embedded in a cultural frame of reference. In some cultures, difference objects, expressions, actions might represent certain ideas that will be interpreted differently in other cultures.

- Making connections and drawing conclusions.
- Extending concepts from one context to another.
- Visually representing thoughts in order to manipulate, disaggregate, and construct articulate composition.
- Modeling and scaffolding language development and metacognition.

APPLICATION

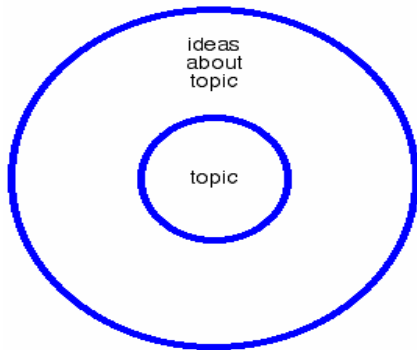
The Bridge Map can be used across all grade levels and content areas. Like all Thinking Maps, the teacher should model the use of the map, making sure to emphasize the thinking process involved. While teaching the concept of analogies, teachers could give students pairs of words and have students guess the relationship or give students the relationship and they have to find pairs of things that fit that relationship. Teachers should then give guided practice with support of partners and groups before moving into individual applications. Students should be able to construct their own Bridge Maps whenever they need/want to create relationships between and among different topics.

Strategy source: see *Thinking Maps: Tools for Learning Manual* by David Hyerle



STRATEGY: Thinking Map - Circle Map

pages 1:18-1:21 in Tools for Learning Manual



SKILLS ADDRESSED

- **COGNITIVE SKILL: DEFINITION AND CONTEXT**
- Answering the questions: What do you know or what would you like to know about this topic? How would you define this thing or idea?
- Brainstorming or generating ideas about topic, issue, concept or idea
- Articulating, Evaluating, and Assessing prior knowledge
- Vocabulary Development
- Linking a concrete visual to abstract thoughts
- Encouraging expansion and refinement of ideas
- Looking for connections and patterns within information on map

PREREQUISITES

- Graphic and purpose must be familiar to students
- Students should be encouraged to write as many ideas as they can without fear of right and wrong answers.
- Circle Map must be used for **Definition and Context** only

POSSIBLE APPLICATIONS

- Defining Vocabulary
- Tool for Key Word Strategy or KWL chart
- Predicting what text will be about based on title, pictures, headings, etc
- Exploring a theme (prejudice, injustice, greed), main idea(things at the beach), mood (suspense) or author's purpose before, during and after reading
- Notetaking for key words as students read expository text
- Reference point for oral presentations or study guide
- Pre and Post assessment tool for before and after a learning episode
- Pre-writing tool before sequencing (Flow Map) or categorizing (Tree Map) ideas

© 2003 Innovative Learning Group

STEPS INVOLVED



1. Teacher or students decide on a topic to define and place in the center circle of the Circle Map.
2. Students individually, in partners, groups or as a whole class generate what they know about that topic through personal knowledge, reading, interviewing, etc., which is recorded in the outer circle.
3. Students look at the information in the map to identify patterns of information, connections, questions and misconceptions.
4. Depending on the purpose/direction of the lesson and on the information in the Circle Map, students could:
 - write a sentence that defines the topic by synthesizing the information in the Circle Map
 - use the information as a starting point for information gathering
 - categorize the information on a Tree Map with color coding
 - sequence the information on a Flow Map to demonstrate the steps in a process or to organize for writing.
5. Students should revise the Circle Map as they learn new information and refer to it when composing writing or giving oral presentations. They could use different colors each time they update the information to see what they had learned over time. Great, ongoing assessment tool.

RELATED LEARNING PRINCIPLES

LANGUAGE AND CULTURE: sense of wholism and valuing context in knowledge

- Recognizing and fostering prior knowledge and personal connections.
- Encouraging patterning and connections to build concepts and improve memory.
- Visually representing thoughts in order to manipulate, disaggregate, and construct articulate composition.
- Facilitating and synthesizing brainstorming.
- Modeling and scaffolding information processing and metacognition.

APPLICATION

The Circle Map can be used across all grade levels and content areas. Like all Thinking Maps, the teacher should model the use of the map, making sure to emphasize the thinking process involved. Teachers should then give guided practice with support of partners and groups before moving into individual applications. Students should be able to construct their own Circle Map whenever they need/want to begin defining what they know or want to know.

Strategy source: see *Thinking Maps: Tools for Learning Manual* by David Hyerle
© 2003 Innovative Learning Group



STRATEGY: Thinking Map - Multi-Flow Map

pages 1:44-1:47 in Tools for Learning Manual



SKILLS ADDRESSED

- COGNITIVE SKILL: CAUSE AND EFFECT
- Answering the questions: What are the short term and long term effects of this event, issue or action? What were the causes? How does this system work?
- consequences, implications, results, lead to
- motivating factors, changes, reasons for or why
- inputs and outputs

PREREQUISITES

- Graphic and purpose must be familiar to students
- Students understand terms: cause and effect and their synonyms
- Multi-Flow Map must be used for **Cause and Effect reasoning**

POSSIBLE APPLICATIONS

- behavior, discipline
- problem-solution
- historical analysis, prediction
- Pre and Post assessment tool for before and after a learning episode
- Pre-writing tool for paragraph writing

STEPS INVOLVED

1. Teachers or students might be learning a particular concept or exploring an issue that demands cause and effect thinking or reading a text that presents information in a cause and effect structure.
2. Students individually, in partners, groups or as a whole class identify the main issue, event, or topic and place that in the center box.
3. Students can brainstorm the multiple causes for that event and put those causes in the boxes to the left of the main event. Repeat the same thing for the effects, recording the effects on the right side of the event.
4. Depending on the purpose/direction of the lesson and on the information in the Multi-Flow Map, students could:
 - complete one side of the map and return to it later
 - frame the Multi-Flow Map to provide evidence to support the thoughts
 - expand their thinking by finding effects of one or more of the effects or causes of one or more of the causes

© 2003 Innovative Learning Group



- categorize or prioritize the effects or causes. What are the different types of causes and effects? What are the most significant causes and effects and why?

5. Students should revise the Multi-Flow Map as they learn more information and see in what directions it can be expanded and what questions they still have about the event or issue. Do universal causes and effects exist?

RELATED LEARNING PRINCIPLES

LANGUAGE AND CULTURE: Different cultures will see different factors at work that cause a situation to occur and prioritize or notice patterns of effects differently depending upon their belief and values system.

Making connections and reconceptualizing information.

Feedback cycles, action and reaction.

Visually representing thoughts in order to manipulate, disaggregate, and construct articulate composition.

Modeling and scaffolding information processing and metacognition.

APPLICATION

The Multi-flow Map can be used across all grade levels and content areas. Like all Thinking Maps, the teacher should model the use of the map, making sure to emphasize the thinking process involved. Teachers should then give guided practice with support of partners and groups before moving into individual applications. Students should be able to construct their own Multi-flow Maps whenever they need/want to represent the causes and effects of a situation.

Strategy source: see *Thinking Maps: Tools for Learning Manual* by David Hyerle

© 2003 Innovative Learning Group

