Glossary of Instructional Strategies

PlasmaLink Web Services provides the Glossary of Instructional Strategies as a resource for all educators.

Current number of strategies and methods: 988

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A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

10 + 2 (Ten Plus Two)
Direct instruction variation where the teacher presents for ten minutes, students share and reflect for two minutes, then the cycle repeats.

1st TRIP (First TRIP)
A reading strategy consisting of: Title, Relationships, Intent of questions, Put in perspective.

3-2-1 (Three-Two-One)
Writing activity where students write: 3 key terms from what they have just learned, 2 ideas they would like to learn more about, and 1 concept or skill they think they have mastered.

5 + 1 (Five Plus One)
Direct instruction variation where the teacher presents for five minutes, students share and reflect for one minute, then the cycle repeats.

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

A-B-C Summarize
A form of review in which each student in a class is assigned a different letter of the alphabet and they must select a word starting with that letter that is related to the topic being studied.

Absentee Management
In addition to recording and reporting student absences according to their particular school's rules, teachers can also employ strategies designed to encourage students to attend class regularly. One approach is to call parents during the evening as soon as the student misses a day of school. This call can also be used to allow the teacher to get to know the parents better and to collect information to be used in the preparation of make-up materials for the child.

Abstracting
A thinking skill that involves summarizing and converting real-world events or ideas into models.

Academic Dishonesty Clarification

Any activities through which the teacher explains to the student what constitutes academic dishonesty for a particular class. Clarification is necessary because different forms of collaboration are allowed in different classes and for different activities and different levels of "copying" from sources are allowed in different classes and at different grade levels.

Accelerated Reading

A commercially produced reading program that includes quizzes administered via computer and student selection of books.

Accelerated Reader

Acronym Memory Method

Example: ROY G. BIV = Red, Orange, Yellow, Green, Blue, Indigo, Violet

Enhancing School Success with Mnemonic Strategies

Acting Out a Problem

Students can act out mathematical, scientific, or social problems to improve their comprehension.

Action Projects

A project where ideas learned through research are tested and applied in a real- world situation.

ERIC as a Resource for the Teacher Researcher. ERIC Digest

Action Research - NCREL

Action Research and Standards of Practice for the Teaching Profession: Making Connections - Fran Squire

Activating Prior Knowledge

Helping learners connect to concepts about to be taught by using activities that relate to or determine the level of their existing knowledge.

Active Learning

Any approach that engages learners by matching instruction to the learner's interests, understanding, and developmental level. Often includes hands-on and authentic activities.

Adaptive Learning Environments Model (ALEM)

Combination of individual and whole class approach which helps to integrate students with special needs into the classroom.

Adaptive Scheduling

No one wants to take a test the morning after prom night or the big football game. When scheduling exams, ask students for suggestions about what would be good days and what days are already full with other activities. Some schools keep three month calendars in the office to let teachers know in advance when "big" activities are coming up and to allow adaptive scheduling of tests and activities.

Adaptive Testing

Admit Slips/Exit Slips

Teacher helps in the synthesis of learning by reading anonymous student writings aloud to begin or end a class.

Admit/Exit Slips

Advance Organizer

David Ausubel's guidelines for an abstract introduction. Designed to activate prior knowledge and help students become more receptive to the learning that is to follow.

Affinity

A brainstorming approach that encourages less verbal members of a group to participate. First, all members of the group write responses to the problem or question on separate cards, then the cards are silently grouped by each member while the others observe. After a discussion, the agreed upon arrangement is recorded as an outline or diagram.

Affirmations

Technique for motivating students by helping them believe they can "do things."

AGO (Aims, Goals, Objectives)

Edward de Bono's strategy to help students analyze the reasons behind actions.

AGO: Aims, Goals, Objectives

Agree/Disagree Matrix

A formal approach to discussing and researching issues. Students are polled for agreement or disagreement with a statement and their responses as a group are recorded in the matrix. Students research the topic, and again their responses are recorded. Finally, small groups to meet to to discuss the results and changes.

Agree/Disagree Matrix

Agreement Circles

Used to explore opinions. As students stand in a circle, facing each other, the teacher makes a statement. Students who agree with the statement step into the circle.

AIDA (Analysis of Interactive Decision Areas)

Creativity technique.

Analysis of Interactive Decision Areas (AIDA)

Aims, Goals, Objectives (AGO)

Edward de Bono's strategy to help students analyze the reasons behind actions.

AGO: Aims, Goals, Objectives

Air Drawing

Students draw or motion in the air to demonstrate how they will carry out a procedure before they actually do so. Used in science labs, home economics, and classes where students use tools or musical instruments.

ALEM (Adaptive Learning Environments Model)

Combination of individual and whole class approach which helps to integrate students with special needs into the classroom.

Alphabet Summary

Each student is assigned a different letter of the alphabet and asked to generate a word starting with that letter that is related to the topic being discussed. Students share their terms with the class.

Alphabetic Foods Teams

Brainstorm the names of 26 foods (apple, bread, etc.). A paper is passed within the group and individuals write appropriate names in alphabetical order. Can be adapted to other categories (authors, cities, etc.).

Alternative Assessments

Any of a variety of assessments that allow teachers to evaluate their students' understanding or performance. Examples include: performance assessments, portfolios, journals, and authentic assessments.

Alternative Assessment - NCREL

Alternative Scenarios

A creativity technique in which students consider alternative futures. Useful in writing to encourage students

to consider several plots and endings for their stories before settling down to write. In social studies or science classes, this approach can be useful in helping students see possibilities, both for the present, and for their own futures.

[Alternative Scenarios](#)

Alternative to Recitation

Similar to recitation, but the questions are generated by the students. Usually included : preparation (students read and generate questions), review, quiz, and evaluation.

Analogies

A thinking skill demonstrated by a student when he or she can give examples similar to, but not identical to a target example. For example, the Internet is analogous to the post office (because in both, multimedia information is delivered to specific addresses).

[Analogies](#)

Analysis of Interactive Decision Areas (AIDA)

Creativity technique.

[Analysis of Interactive Decision Areas (AIDA)](#)

Analyzing Perspectives

A thinking skill that involves considering a problem or topic from various perspectives. Related to "Point of View."

Anchored Instruction

A form of constructivism where learning is tied to the students' real world "anchors" (such as social or work experiences).

[Anchored Instruction - John Bransford & the CTGV](#)

Andragogy

Instructional theory by Malcolm S. Knowles dealing with the psychology and special needs of adult learners.

[Malcolm Shepherd Knowles, 1913 - 1997](#)
[Andragogy (M. Knowles)](#)

Anecdotes

A motivational technique to encourage creativity or empathy students. Anecdotes can be about the teacher's life or excerpted from biographies to help students make real-world connections.

Anonymous Voting

Anticipation Guide

Checklist written by teacher to activate existing knowledge.

[Examples of Anticipation Guides](#)

Application Cards

At the end of instruction, students write a real world application for the knowledge on a small card and submit the card to the teacher.

Application Teaching

A constructivist approach centered on activities which involve learning which proceeds from more basic ideas to more complex. The expected products generated by the students are determined by the teacher.

Applied Behavior Analysis

For purpose of modifying student or class behaviors

Applied Imagination

Technique to stimulate creativity. Includes the use of questions as prompts to enable people to consider many, apparently unrelated, options.

Apprenticeships

Students work in the workplace under the guidance of mentors or tutors who take responsibility for the professional development of their apprentices.

Youth Apprenticeship

Youth Apprenticeship

Argument Paper

Type of writing which presents a thesis, then supports that thesis with evidence or proof.

Argument Table

A table used to organize logical statements. Used in teaching logic in geometry and in expository writing classes.

Artifact Strategy

The teacher presents carefully selected objects (artifacts) to the students, poses a problem, and allows students to collect information about the object, then formulate answers to the presented problem.

Assemblies

Meetings of large groups, typically an entire student body, for the purpose of describing future events, sharing values, and recognizing achievement.

Associations

Finding or making association between concepts.

Assumption Smashing

List assumptions, then eliminate one. What might happen? (for example, "All forms of transportation are now free." What is the effect on society?)

Assumption Surfacing

Creativity technique.

Assumption surfacing

Asynchronous Learning

Attributes

Listing attributes of concepts.

Attribute listing (and variants)

Audio Tapes

Educational audio tapes are most often used in language and music classes, but are also useful in social studies, physical education, and in building vocabulary in many fields.

Audio-visuals

Includes many categories of educational materials including: posters, paintings, slides, videos, films, audio tapes, and videotapes.

Authentic Assessment

Authentic Instruction

Instruction which is meaningful to students. Focuses on higher order thinking, depth of knowledge, real-world

applications, and social interactions.

Authentic Questions

Questions generated by learners in response to natural curiosity about the content. Questions spontaneously asked by learners without prompting by teachers.

Author's Chair

Students sit in a chair at the front of the class and present their work to the class.

Autobiographies

Students can write their life stories as a writing activity, or explore the lives of prominent people by reading published autobiographies.

Biographies and Autobiographies: Life Models in the Classroom
The Autobiography of Anything

Awards

Any tangible object given to students to reward positive behavior or achievement. May include certificates, plaques, trophies, or ribbons.

Backward Forward Planning

Creativity technique.

Backward Forward Planning

Bag-It

Game using manipulatives to reinforce mnemonic approach.

Baggage Claim

Members in a new group are asked to write five interesting facts about themselves on a note card. For several minutes, people walk around the room, introducing themselves and sharing the facts on their cards. They then exchange cards (baggage) and move on to introduce themselves to others in the group. When time is up, the teacher or moderator collects all the cards and either returns them to their owners, or reads the facts and asks people to identify the owner of the card (baggage).

Baggage Claim

Basadur Simplex

A problem-solving strategy. Steps include: problem finding, fact finding, problem defining, idea finding, evaluating and selecting, action planning, gaining acceptance, taking action.

Mind Tools - Simplex - A Powerful Integrated Problem-Solving Process

Be Here Now

David B. Ellis's method for focusing student attention when it begins to wander from the task at hand.

Before, During, and After

A metacognitive approach to reading that guides students to explore text Before reading to activate prior knowledge, monitor comprehension During reading, and summarize the reading After reading.

Before, During, and After - NCREL

Behavioral Observations

Measuring of students actions using either formal or informal methods.

Behaviorist Models

Based on the philosophy that learning is a change in behavior. Student behaviors which are rewarded will be repeated. Behaviors which are punished or ignored will decrease. Model stresses the importance of the environment in learning and treats the student's mind as an unknowable "black box."

Behaviorism

Benchmarking

Big Books

The use by a teacher of oversized books when reading to a group of children. The large size of the text and pictures makes it possible for all children in the group to see interact with the book at the same time.

Biopoems

Poems written by students about any specific person or object (character in book, living or inanimate objects). To summarize student knowledge of topic.

Bio-Poem

Blended Learning

Blogs

Blogs, also known as weblogs, are online journals that can be used by the teacher as a means of sharing thoughts, assignments, or resources; or blogs can be created by students for the purpose of reflection, intergroup communication, or to fulfill particular assignments.

Using Blogs to Integrate Technology in the Classroom
Blogging Basics: Creating Student Journals on the Web

Bloom's Taxonomy

An approach to ranking learning by the sophistication or depth of learning required or accomplished.

Activities at Various Cognitive Levels of Learning (LoL)
Bloom's Taxonomy
Applying Bloom's Taxonomy

Book Box

Boxes of books, kept in the classroom, to be explored by students at their own pace.

Book Club

Groups who meet to discuss books.

Book Clubs - Guides to Get You Started

Book Ends

Pairs of students discuss and make predictions before an activity, then meet after the activity to review and compare reactions.

Book Reports

A factual, written summary of a book.

Writing a Book Report
Writing a Book Report - First Steps

Books on Tape

Audio tapes of books that have been read aloud.

Brain Lateralization

Because different hemispheres of the brain perform different functions, individual's learning styles and preferences are related to the functioning and dominance of the different halves (hemispheres) of their brains.

Instruction can be adapted to fit variation in individual's brain preferences.

[Right Brain vs. Left Brain](#)

[Whole Brain Teaching](#)

Brain-based Learning

An instructional model based on the idea that instructional activities are more effective if they occur in an environment compatible with the way the brain is designed to learn.

[Brain-based Learning](#)

[Brain-Based (Compatible) Learning](#)

Brainstorming

Group process where all ideas are accepted and recorded.

BrainWriting

A creativity or problem-solving technique similar to brainstorming, but individuals write their ideas.

[BrainWriting](#)

Brochure

Students research a topic then create a brochure to explain the topic to others.

Buddy Program

Students are typically paired with a slightly older child for most of the year. The buddies meet once every week or two to work together on reading or spelling. The younger children benefit from individualized attention and the older children benefit by being able to act as a role model. Teaching recently learned skills reinforces and strengthens those skills, so the older children in such programs typically show as much improvement as their younger buddies.

Buddy System

Pairing students during the first week of class to create pairs who are responsible to help each other get missing assignments due to absence, or watch out for each other during field trips.

Budget Preparation

Students research and prepare budgets to understand costs and values.

Bulletin Boards (classroom)

Boards or wall space where information or materials can be posted to inform, excite, guide, or motivate students.

Bulletin Boards (online or electronic)

A web-based bulletin board or discussion board is a messaging system through which instructors and students can share information asychronously.

[Extending the Classroom into Cyberspace: The Discussion Board](#)

Business

Teachers and programs can guide students in beginning a small business.

[Start Your Own Business](#)

Buzz Sessions

Small, informal group discussions.

C-4 Yourself

Collaborative project strategy with four components: challenge, choice, collaboration, and creation.

C-SOOPS

Acronym is useful to help students remember which aspects of their writing they should check when editing. C-SOOPS stands for: Capitalization, Sentence structure, Organization, Overall format, Punctuation

CAF (Consider All Factors)

Edward de Bono's guided approach to decision-making that encourages individuals or groups to increase the number of factors or variables they consider before making a decision.

CAF: Consider All Factors

CAI (Computer-Assisted Instruction)

Students learn at own pace with interactive computer programs.

Computer-Assisted Instruction

Calculator

For use in computation, or for demonstrating skill with the calculator.

Capitalization/Organization/Punctuation/Spelling (COPS)

Acronym is useful to help students remember which aspects of their writing they should check when editing.

Capsule Vocabulary

A teaching strategy to explore a few vocabulary words related to a specific topic.

Career Exploration

Activities, guides, and counseling to assist students make decisions about choosing their future professions, and how to get jobs in their chosen fields.

Carolina Teams Improvement

Scoring method where students receive bonus points for exceeding their individual target and team bonus points if their team's combined score exceeded their team's target.

Carousel

Collaborative problem-solving using teams of three students.

Carousel Brainstorming

Subtopics or questions about a topic are posted throughout the room. Student groups brainstorm as they visit each of the subtopics.

Carousel Brainstorming
CAROUSEL BRAINSTORMING
CAROUSEL BRAINSTORMING

Cartoons

Reading or creating cartoons.

Editorial Cartoons in the Classroom

Cascade

Cooperative analysis of short, but critical, passages of text or graphics.

Case Studies

Case studies are real life problems that have arisen in the workplace that students must solve. Can also be used to explore interpersonal relationships.

Case Studies Method: Not Just for Business Schools Anymore

Categorization

Thinking skill that allows students to sort objects or concepts into categories according to a variety of criteria.

Causal Mapping

A form of concept mapping in which causes and effects are more clearly shown.

Causal Mapping

Cause and Effect

A pattern showing the relationship between two actions or occurrences.

Cause-and-Effect Writing Challenges Students

Cause and Effect (graphic organizer)

Celebrations

Classroom and school-based celebrations provide an opportunity to teach students more about their own cultures and that of their classmates.

Chant

Rhythmic text, repeated orally by individuals or a group to improve recall.

Songs for Teaching - Cheers, Chants, Raps, and Poetry

Character Analysis

Character analysis in education has two meanings. The most commonly used is to describe activities designed to help students understand characters in their fictional reading. The second meaning is analysis of the student's own character with regard to ethics and values.

Character Analysis: The Search for Self

Character Education

Activities designed to develop character, compassion, ethics, and responsibility in youth.

Character Education

Character Education - Free Resources

Characterization

In critical thinking, characterization a form of analysis of critical features of an object or concept. In writing, characterization is the creation of believable fictional characters.

Chat

Cheat Notes

Summarization technique. Students prepare a single note card of information they believe will be on test. Students are allowed to bring these notes to test. As students gain confidence, withdraw use of cards during test.

Checklist

Checklists can be used to satisfy many objectives. They are useful as a memory tool or in encouraging creativity. They can also be used directly as assessments, or as a review tool in preparing for assessments.

Self-Assessment with Essay Question/Assignment (PDF)

Choice Theory

Glasser's updated Control Theory.

Choice Theory - AKA Control Theory

Choral Response

In response to a cue, all students in the group respond verbally at the same time. The response can be either to answer a question, or to repeat something the teacher has said. Often used in learning languages and in

repeating of computational facts.

Chronological Sequencing

An instructional approach in which objectives are presented to learners in chronological order. Compare to: General-to-Specific, Known-to-Unknown, Part-to-Part-to-Part, Part-to-Whole, Part-to-Whole-to Part, Spiral, Step-by-Step, Topical, Unknown-to-Known, Whole-to-Part

Chunking

A memorization technique.

      Five Simple Techniques to Improve Your Memory

Chunking

A writing technique.

CIRC (Cooperative Integrated Reading and Composition)

A cooperative approach to reading in which students work in pairs for practice and to prepare for assessments. Teacher-administered assessments are not taken until the student's teammates decide they are ready for the assessment.

      Cooperative Integrated Reading and Composition (CIRC) - Reading

Circles of Knowledge

Graphic organizer that prompts students to write: 3 Facts I Know, 3 Questions I Want Answered, and Answers to My Questions.

      Student Activity Sheet: Circles of Knowledge
      Student Activity Sheet: Circles of Knowledge

Circles of Learning

Cooperative learning method devised by Roger and David Johnson which combines whole class learning plus heterogeneous small groups. An extension of Johnson and Johnson's "Learning Together." Comprises eighteen steps designed to guide teachers through the team building and managing process.

Clapping

Can be used as a signal BY the teacher or as a response FROM student to signal attention.

Clarifying

Formal and informal techniques used by a teacher to identify and eliminate confusion about ideas or assignments.

      Clarification

Clarifying Table

Graphic organizer to help students connect the current concept to related concepts or examples.

Class Meetings

When students are allowed to contribute to the operation of the classroom through class meetings, they have the opportunity to learn responsibility and decision-making skills.

Class Publication

Students collaborate to create a written work to be published. Formats might include: magazine, newspaper, brochure, map, newsletter, or yearbook.

Classification

When objects or concepts are classified, they are grouped with other, similar things, and the group is given a label. As a thinking skill, classification requires the application of knowledge. When students invent their own classifications, they practice discovery and invention along with being able to apply prior knowledge about

the objects or concepts being classified.
> [Principles for Learning Concept Classification](#)

Clean Up Song

To signal to students that it is time to begin cleaning up for the day, start a song for them to listen to while they clean up.
> [Clean Up Song](#)

Closure

Any activities which help students summarize key points learned and how the new knowledge relates to the objectives to be learned.

Cloze Procedure

An activity created by the teacher to give students practice with language usage. The teacher selects a passage of text, marks out some of the words, then rewrites the text with blank lines where the marked out words were. The result is a "fill in the blank" that should be enjoyable for the student while at the same time giving the teacher information about the student's language skills.

Clubs

4-H, Chess, Science, etc.
> [After-School Science Clubs](#)
> [Exeter Chess Club Coaching Page](#)

Clue

Group problem-solving with each team member given a different clue.

Cluster Analysis

Clustering

Graphic way of organizing concepts proposed during brainstorming. Similar to concept-mapping.
> [Clustering (graphic organizer)](#)

Co-op Co-op

Cooperative learning method where teams work to prepare and present a topic to the whole class. Emphasis is on student selection (of topics, partners, division of labor, methods of presentation, etc.).

Coaching Model

A model of instruction where the teacher is a guide and collaborator in the student's learning, not the sole director.
> [Cognitive Coaching](#)

Cognitive Apprenticeship

Cognitive apprenticeships take many forms, but the two key components are social interactions to allow students to work on problems that may be too difficult for them to handle individually, and a focus on real world problems using real-world tools.
> [Cognitive Apprenticeship](#)

Cognitive Dissonance

Leon Festinger proposed this model to explain why people change their beliefs when two or more of their beliefs are in conflict with each other.
> [Cognitive Dissonance](#)
> [Cognitive Dissonance Theory](#)

Cognitive Learning Models

Based on the philosophy that learning occurs when there are changes in mental structure. Learning occurs as the result of interactions between the learner and the environment.

Cognitive Map

The psychological definition of a cognitive map is the framework in the human mind through which we interpret objects, events, and concepts. The phrase "cognitive mapping" has also been used to describe concept maps.

Collaborative Learning

Any kind of work that involves two or more students.

Collages

Students gather images (clippings from magazines, photographs, or their own drawings) and organize them to illustrate a concept or point of view.

Collages

Collections

Could be after class student project or could be classification of classroom collection (books or plants, for example).

Collective Notebook

A notebook maintained by a group in which each member of the group is expected to add an idea or observation during a specified time period (typically each day or each week). The contents of the notebook are regularly shared or published and discussed.

Collective Notebook (CNB)

Color Coding

Labeling learning materials or concepts with color tags to assist identifying objects or ideas that belong together.

Colored Paper Grouping

A method for randomly assigning students to groups in which pieces of colored paper are passed out to students, then students with papers of the same color get toether.

Comic Books

Useful for engaging visual learners and encouraging a wide variety of students to become involved in discussions of literature and the wide range of social, scientific, and historical topics covered in comic books.

Committees

Volunteering to work on a student committee can teach students about values, decision making, interpersonal skills, and help them make important connections to the community at large.

Community Work

Student as volunteer. Students gain self-esteem and valuable experience through volunteer work.

Service Learning

Comparing

To observe or consider the characteristics of objects or concepts, looking for both similarities and differences.

Compare and Contrast (graphic organizer)

Comparison Matrix

A graphic organizer that can assist students in gathering information and comparing objects or concepts.

Comparison Matrix

Comparison Table
> A decision-making tool enabling a structured comparison between choices.
>> Comparison Tables

Competitions
> Competitions can be useful in motivating some student to learn. Team competitions especially effective in the classroom if they are tied to a collaborative practice or review activity before the competition.

Completed Work Chart
> Make and publicly post a chart that lists all assignments along the top and students' names vertically along the left.. When a student finishes an assignment, the teacher marks out the box for that assignment on the chart so students can quickly see if they are missing any work. In this approach, grades are never publicly posted, and if work is so late it will no longer be accepted, the box is also marked out. The chart is used only as a reporting mechanism to let students know about work they need to do that will still be accepted for credit.

Component Display Theory
> David Merrill's highly structured approach to designing instruction.
>> Component Display Theory

Compositions
> A written work by a student to demonstrate some literary or linguistic knowledge. Also, any type of music written by a student.
>> Teaching Composition
>> Examples of Student Compositions and Online Mentoring Discussions (Music)

Computer Games
> Educational computer games can be purchased for students to use to review or explore concepts. Student can also design and create educational computer games to share with fellow students.
>> Constructivism at Work through Play (Kids Designing Computer Games)

Computer Simulations
> Simulating events or situations on a computer enables students to experiment with concepts or materials quickly and safely.
>> The use of computer simulations in General Chemistry

Computer Software Design
> Students design and create computer programs to learn more about writing, syntax, logic, design, and technology.
>> RoboLab (Learn Programming Through the Use of Robotics)

Computer-Assisted Instruction (CAI)
> Students learn at own pace with interactive computer programs.
>> Computer-Assisted Instruction

Computer-Based Training

Computing
> Finding solutions to problems involving numbers by carrying out the indicated operations.
>> Computation and Picture Books

Concentration
> Pairs of cards are created (name of concept on one, description on other for instance). Students take turns. On each turn student chooses 2 cards from face- down arrangement. Students keep pairs which they correctly identify as matching.

Concept Attainment Model

Inductive model of instruction where student are presented with examples and non-examples of a concept. Students generate hypotheses and attempt to describe (and sometimes name) the concept.
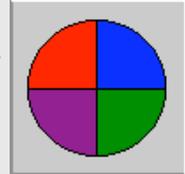
Concept Attainment

Concept Cards

Cards created by students that link terms to the use of that term in context.

Instructional Reading Strategy: Concept Cards

Concept Circles

Challenge students to either name the concept or complete the missing section(s) of the circle. Concept = colors

Concept Development Model

Inductive teaching model. Concepts are taught using the sequence: list items, group items, label, regroup, synthesize, and evaluate (can students generate and group on their own?)

Concept Fan

A problem-solving technique which encourages people to examine and solve causes of problems.

Concept Fan

Concept Folders

Key concepts for course are each assigned a folder. Examples or illustrations of the concepts are kept in the folder for students to explore.

Concept Formation

The process by which we learn to identify concepts and which instances are examples of that concept.

Concept Formation

Concept Map

Any of several forms of graphical organizers which allows learners to perceive relationships between concepts through diagramming keywords representing those concepts. Originally developed by Joseph Novak in the 1960's.

The Projectile Launch Project - Concept Maps Assignment

Concept Matrix

A two-dimensional approach to organizing information to solve problems or make connections between concepts.

Concept of Definition

Students construct organizing maps to explore meanings or definitions of words.

Concept of Definition Map

Conceptual Change Model

Constructivist approach which involves identifying and clarifying student misconceptions, then using an activity to challenge these misconceptions.

Conclusions

A logical process in which students analyze facts and generate new facts based on what is known. For example: It is a dry, sunny day. The neighbors are watering their yard using a sprinkler. Our dog is leaving wet footprints on the porch. Conclusion, our dog has been in our neighbor's yard, running through the sprinkler.

Conditions of Learning

Robert Gagne's theory explaining the different types of learning and proposing that they require different types of teaching.

Conditions of Learning

Conferences

Conferences are face-to-face discussions. Conferences may occur between teachers and students to enable teachers to give individual guidance, or they may be meetings between parents, teachers, and (sometimes) the student for the purpose of discussing the student's progress and issues relating to how to improve the educational experience for the student.

Student-Led Conferences: A Growing Trend

Portfolio Practice (student-teacher conferences)

Parent-Teacher Conferences: Five Important Questions

Confirmative Evaluation

Conflict Chart

Conflict charts are used in three areas of education. Most commonly, they are used as a graphical tool to help students understand the motivation of real people or fictional characters, but they are also used as a tool to insure that students are scheduled for exactly one class per period with no "conflicts," and finally, they are used as a social and behavior management tool to analyze interpersonal conflicts.

SHORT STORIES : THE PUZZLE PIECES OF LIFE - Appendix B

Conflict Mediation

Mediation involves discussions in the presence of a mediator who is trained to help individuals find solutions to their differences.

Conflict Mediation

Connectionism

Edward L. Thorndike's behavioral theory that learning occurs as the result of connections made in the mind between stimuli and responses.

Edward L. Thorndike

Connectionism

Consequence and Sequel

Edward de Bono's guided approach that allows groups to explore both short term and long term effects of actions.

C & S: Consequences and Sequel

Consider All Factors (CAF)

Edward de Bono's guided approach to decision-making that encourages individuals or groups to increase the number of factors or variables they consider before making a decision.

CAF: Consider All Factors

Construction Spiral

A three-step process: individuals record their own thoughts, then small groups share ideas, finally, the whole group's ideas are written on the board. Corrections during the recording should be by the group and with no judgments by the teacher. If refinement of understanding is needed, a new question is posed.

Constructions

Geometric constructions involve the copying or manipulation of geometric shapes using only a straightedge and a compass.

Constructions

Constructivist Models

Based on the philosophy that knowledge cannot be transferred from the teacher to the student but must be constructed by each individual. Connections must be made between the student's existing conceptual network and the new material to be learned.

[Characteristics of Constructivist Learning & Teaching - Elizabeth Murphy](#)
[Constructivist Learning Model - Yager](#)
[Constructivism](#)

Context Clues

When students encounter unfamiliar words, those words usually exist in an environment that includes many clues to word meanings. Meaning can be deduced or guessed by analyzing the context (the environment around the word).

[Chapter 3: Guessing Word Meaning by Using Context Clues](#)

Contextual Model

Based on philosophy that culture and other environmental contexts must also be considered in teaching child.

Continuum

Students take keywords and arrange them to form a continuum based on a variety of criteria. For example, "beaver, rattlesnake, deer, plankton" would be arranged as "rattlesnake, deer, beaver, plankton" if asked to arrange according to their preference for water, and "plankton, rattlesnake, beaver, deer" if asked to arrange according to size.

[Continuum (graphic organizer)](#)

Contract Grading

Contracts

Contracts are formal agreements between individuals or entities. For a contract to be effective or valid, usually some action is performed by one party of the contract and in exchange the party performing the action gets something of value in return. In a school setting, the student typically performs the "service" of behaving in a desirable way, and if successful, the student is rewarded.

Contrasting

Exploring or describing differences between objects or concepts.

[Compare and Contrast (graphic organizer)](#)

Control Theory

Glasser's theory explaining that, in an attempt to satisfy basic needs for survival, belonging, power, freedom, and fun, people will act to control their behavior to satisfy those needs. Control theory is related to Choice Theory.

[Control Theory](#)
[Control Theory; A New Explanation of How We Control Our Lives](#)

Cooking

Hands-on activity that helps students make connections between the math, reading, and science they do in the classroom and a real-world application that most people do daily.

Cooperative Conflict Resolution

Cooperative approach to learning about how to prepare arguments and discuss arguments.

Cooperative Integrated Reading and Composition (CIRC)

A cooperative approach to reading in which students work in pairs for practice and to prepare for assessments. Teacher-administered assessments are not taken until the student's teammates decide they are ready for the

assessment.

    Cooperative Integrated Reading and Composition (CIRC) - Reading

Cooperative Learning Model

In this approach, students share knowledge with other students through a variety of structures. Cooperative Learning, as a phrase, originated in the 1960's with the work of David and Roger Johnson. True cooperative learning includes five essential elements: positive interdependence, face-to-face interactions, individual accountability, some structured activity, and team-building (group processing) skills. Similar to the "Social Learning Model."

    Cooperative Learning - Houghton Mifflin
    Cooperative Learning - Huitt
    What is collaborative learning?

Cooperative Review

Groups take turns asking other groups questions. Often conducted as a game where points are awarded.

COPS (Capitalization/Organization/Punctuation/Spelling)

Acronym is useful to help students remember which aspects of their writing they should check when editing.

Copying

Reproducing drawings, text, motions, etc. Used to encourage students to look more carefully at something.

Corners

Students are asked to select (by standing next to their choice)from four options which are posted in the corners of the room. Students then defend choices and listen to others' choices.

Crawford Slip Writing

Students are provided with a pad of papers with text and graphical prompts to which they should respond as quickly as possible. Can be used with older students to generate ideas, or with younger students as a form of ungraded assessment.

    Crawford Slip Writing

Creative Thinking Reading

Teams of students work together to solve assigned problems using text provided by the teacher.

Criterion-referenced Assessment

Performance is compared to a set standard or objective. It is possible for all students to earn the highest possible grade if all meet the established criteria for that grade. (compare to Norm- referenced assessment)

    Criterion-Referenced

Critical Instances

Critical thinking is a process whereby the learner considers a variety of possibilities, then chooses from those possibilities using unbiased, rational thinking.

    What is Critical Thinking?

Criticizing

A thinking skill involving judging or analyzing.

    Critical Thinking - Section 3 - Criticizing an Argument

Critique

Critiques can take several different forms. In writing, students read and react to a single written work by summarizing information and evaluating the source's correctness, relevance, or viewpoint. In the arts, works of art are critiqued either in writing or through a discussion, to help students develop analytical and interpretive skills.

Cross-Age Tutoring

Older students act as tutors to younger students. Often carried out in the form of a "buddy" program where all the fourth graders in a school may have a first grade "reading buddy" with whom they work.

Cross-Checking

Using multiple sources of information.

Cross-Pollination

Have students share ideas during investigation of problems.

CROWN

A closure technique that encourages students to reflect on the completed lesson. CROWN = Communicate what you learned. Reaction. Offer one sentence that sums up what the whole lesson was about. Where are some different places you could use this? Note how well we did today.

Cubing

A six-part technique to explore different aspects of a topic. The six parts include: describing, comparing, associating, analyzing, applying, arguing.

Cubing

Cueing

Various means used by the teacher to let students know that particular material is important.

Cumulative Cases

A structured preschool program based on a series of thematic units

Cumulative Final

A cumulative final exam is an assessment for which the students are expected to know all concepts taught during the course. Some instructors have a policy of passing any student who can pass a cumulative final exam. The advantage to this approach is that students have a chance to pass up until the very end of the course. The disadvantage to this is some students will not do classwork because they can survive the course by taking a single test.

Current Events

Discussion or student work centered on events in recent news.

Why Teach Current Events?

Curriculum

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Daily Message

Early in the day, the Principal or Vice Principal start the day by addressing students. These short speeches are typically on such themes as "respect," handling peer pressure," or "being kind to others."

GHS Students Get a Daily Message via Project Wisdom

Daily Outline

By posting a written overview of what will be done during the day, students can be prepared in advance.

These overviews typically include a list of any work that should be done by the beginning of class, a list of work that will be done during the day, a list of work to be done as homework, and a brief description of the concepts to be covered and the resources needed (books, handouts, tools, and so on).

Dance

Dance can be used to teach coordination and discipline. Dancing in groups encourages students to become more observant and strengthens social bonds. Memorization of lengthy dance routines and the music associated with them stimulates parts of the brain involved with creativity.

Data Analysis

Having students gather and analyze data can connect them to real-world problems and also improve their critical thinking skills.

    Collecting and Analyzing Data - The Soda Survey

Data Gathering

Students collect information in an organized way for use in statistical analysis, scientific research, or as support for arguments in social studies or other fields.

    How to Collect Data
    Student Generated Data

Days

Special days during the school year when all activities center around a theme.

    Pi Day
    Ten Great Activities for Grandparents Day
    Storytelling Festival Day

Debates

Debates are arguments carried out according to agreed upon rules and used in the classroom to engage students and help them make connections to the curriculum.

    Great Debates (PDF)

Debriefing

A form of reflection immediately following an activity.

Decision Making

Helping students learn to make better decisions improves their problem-solving skills and helps students be more effective in confronting choices outside the classroom.

    Improving Students' Decision Making Skills

Decision-Making Matrix

Method for assigning numerical values to criteria, and the extent to which alternatives satisfy criteria.

Decision-Making Tasks

A Meaningful Use Task where students identify criteria and alternatives then reevaluate the alternatives to make a decision.

Deduction

Starting with general ideas and moving to more specific ideas within a topic. (compare to induction)

Deductive Inquiry

A form of inquiry with four basic components: presentation of a generalization, discussion of core elements of the generalization, student exploration of the elements, student generation of relevant examples of the generalized concept.

    Deductive Inquiry

DEFENDS

A writing strategy by Edwin S. Ellis.

Defining

Any activity that requires students or teachers to state the meaning of a word or phrase.

Deliberations

Ask students to support one point of view on topic, then take and support opposing point of view. Then write position paper.

Deliberations - An Academic Challenge Teaching Strategy

Demonstrations

An activity to show students how things work or how they happen. Demonstrations are often used in science classes.

Chemical Demonstrations in the Classroom

Descriptions

Telling about something. When done by teachers, descriptions are usually used to introduce new information. When done by students, descriptions are used to demonstrate knowledge of a concept.

Design Contests

In addition to design contests within the classroom, many corporations sponsor design contests to encourage creativity and innovation at many levels of education.

Student Contests and Competitions

Designing

A form of planning.

Classroom Compass - Design in the Classroom

Devil's Advocate

A dialectical approach in which the teacher proposes or defends an extreme or unpopular viewpoint. Used to initiate or stimulate a discussion or debate, For example, in a class on environmental issues the teacher might suggest that the nearby wetlands be drained because of the many mosquitos that breed there.

Dialectical Approaches

A discussion or argument in which a thesis and its antithesis are broken down into related core ideas in order to help participants evaluate or challenge existing assumptions.

Dialectical Approaches

Dialectical Journal

A two column note-taking or journal method that features quotes or ideas from the text in one column, and ideas from the reader in the other column.

Dialectical Journal
Dialectical Journals

Didactic Instruction

Teacher-centered instruction in which the teacher tells the student what to think about a topic. Used for the delivery of factual (not debated) information.

Didactic Questions

Questions which tend to have a single answer and allow students to demonstrate lower order thinking like recall.

DIDLS

A technique for analyzing the style of a piece of literature. Diction (choice of words), Imagery, Details, Language, and Syntax (structure and patterns of sentences).

    DIDLS Breakdown

Dioramas

A three-dimensional scene, usually created by the students, and acting as a miniature model.

Direct Instruction

Teacher-centered instruction which includes lecture, presentation, and recitation.

    Summary of Principles of Direct Instruction - Huitt

Direct-Interactive Teaching Model

A direct teaching approach that typically follows a cycle that includes: checking previous work, presenting new material, student practice with new material, feedback from the teacher, independent practice, regular reviews.

    7.3 Direct-Interactive Teaching Model

Directed Paraphrasing

Students are asked to summarize or explain a concept or theory to a specific (imaginary) audience. For example, a medical student might be asked to explain what neurotransmitters are, and phrase the explanation so it would make sense to a hospitalized patient.

Directed Reading Thinking Activity (DRTA)

Throughout reading, questions are used to activate students' existing knowledge. Students are encouraged to make predictions.

Directions

Instructions given by the teacher to the students describing what the students should be doing.

    On Giving Good Directions

Directive Model

A teacher centered model that focuses on student activities being guided by teacher directions and direct transmission of information.

Discovery Teaching

A constructivist approach. Students begin learning with an activity designed to lead them to particular concepts or conclusions. Students acquire basic and advanced knowledge in random order.

Discussion

Classroom discussions typically begin with the teacher describing the goal or purpose of the discussion. Sometimes discussions may be initiated by the posing of an open-ended question. Teachers can employ a number of techniques to encourage students to participate in discussions, including calling on specific people, or assigning students to be an "expert" or leader for various parts of the discussion. Many cooperative activities include a "small group" discussion as teams work together.

    Class Discussions - NCREL

Discussion Board

A web-based bulletin board or discussion board is a messaging system through which instructors and students can share information asychronously.

    Extending the Classroom into Cyberspace: The Discussion Board

Discussion Groups

In the classroom, a discussion group is formed when a discussion is carried out by only a part of the class. Outside the classroom, discussion groups are composed of individuals with similar interests. These groups

meet regularly to discuss a variety of literary or social issues.

Discussion Web

A form of discussion that starts out with individual students formulating a response, then each student pairs with one other, then the pairs pair to form groups of four. Finally, when the groups have refined their answers, they share their thoughts with the whole class.

Webs (The Discussion Kind!) in the Classroom

Dissections

To cut apart and analyze an animal. plant, device, or idea.

Make a Frog Sandwich - Bowersox

Distance Education

Distance Learning

DO IT

Define problem, Open self to new ideas, Identify best solution, Transform idea to action.

DO IT

Dog Paddles

A whole class, kinesthetic approach in which students raise one of two dog-shaped "paddles" in response to verbal prompts. For example, in a science class, paddles could be labeled "carnivore" and "herbivore." "Prime" and "composite" could be used in a math class. "Socialism" and "capitalism" could be the paddle labels in a social studies class, and so on. Dog-shaped paddles can be cut from construction paper and taped to folded card stock or rulers.

Domain of Learning

Teaching for the Whole Student (PDF)

Double Cell Diagram

A form of graphic organizer linking two items.

Double Cell Diagram

Drafts

Students complete writing or creative work in stages to facilitate progress from capturing ideas quickly to the use of more detailed revision and editing skills. (See Quintilion Progression)

Dramatizing

Students act out roles from stories or historical events.

Drawing

Students can illustrate text they have read, draw diagrams of problems they have heard, or simply draw to stimulate creativity.

Dream Diary

Useful creativity technique in art and writing classes. Students keep a diary of their dreams, then can use the images and ideas in their compositions.

Keeping a Dream Diary

Drill

Practice by repetition. Often used to reinforce grammar and basic math skills.

Driting

Drawing and writing.
     About "Driting"

Drive Reduction
     A theory of learning developed by Clark Hull which describes the drives (needs) individuals have and that
     learning occurs because individuals strive to reduce their drives (satisfy their needs).
     Drive Reduction Theory

DRTA (Directed Reading Thinking Activity)
     Throughout reading, questions are used to activate students' existing knowledge. Students are encouraged to
     make predictions.

Dyads
     A group consisting of two students.

[A](#) [B](#) [C](#) [D](#) [E](#) [F](#) [G](#) [H](#) [I](#) [J](#) [K](#) [L](#) [M](#) [N](#) [O](#) [P](#) [Q](#) [R](#) [S](#) [T](#) [U](#) [V](#) [W](#) [X](#) [Y](#) [Z](#)

E-Learning

E-mail
     A technique to connect students to people around the world to collaborate on projects or distance learning.
     E-mail can also be used to provide a direct communication link between the teacher and the students' parents.

Elaboration
     A thinking skill that involves adding to, improving, or completing an idea or process.
     Elaboration

Electronic Learning

ELVES
     Technique to increase creativity: be at Ease, make Lists, Vary the lists, Eureka, Select.
     ELVES

Emergent Literacy
     The concept that learning to read or write does not happen quickly but is built upon many small steps that
     occur over the course of the child's early childhood. The process begins with activities that happen naturally in
     the home such as talking with and reading with the child, then continues in the classroom with more
     formalized strategies to encourage reading and writing.

Empiricism
     John Locke's philosophical assertion that all knowledge is based on experience.

Envelope, Please
     An activating strategy used prior to beginning a new topic.

Error Analysis
     Error analysis takes two basic forms in the classroom. In the most common form, teachers analyze the errors
     students make (in mathematical computation, grammar, language, literature interpretation, and so on) and use
     that analysis to guide further instruction. In science classroom, some teachers teach students to analyze
     experimental errors to improve critical thinking skills.

Essays

A short, written work, centered on a single subject.

Estimating

Proposing an approximate answer to a problem or question.

Estimation Lineup

An activity designed to activate students' prior knowledge before new material is presented.

Evaluating

A critical thinking skill involving judging to place a value on ideas or work.

Exaggeration

Used to help identify key attributes when employed by the teacher in a discussion. Can also be used in writing or drawing projects to produce unique and memorable projects.

> Exaggeration (magnify or minify)

Examples

Ideas or objects drawn from a group of ideas or objects to represent core features of the group from which they are drawn.

> Exemplification and the Example

Expectation Outline

A pre-reading activity in which students skim the assigned reading, then write down some questions they expect to be able to answer, or key concepts they expect to learn about, as the result of completing the reading.

Experiential Learning

Carl Roger's theory that there are two types of learning: cognitive (memorizing or studying simply because work is assigned) and experiential (learning to satisfy the needs and wants of the learner). Studying a book with commonly used phrases in Norwegian is experiential if you are planning a trip to Norway, but the same activity is cognitive if you are taking a language class and the teacher assigns reading from the book.

> Carl Rogers
> Experiential Learning

Experimental Inquiry

As a Meaningful Use Task it includes observation, analysis, prediction, testing, and re-evaluation. As a variation of inquiry, experimental inquiry involves generating and testing hypotheses to explain phenomena.

Experiments

Tests to demonstrate or discover something.

> Skill Handbook : Practicing Scientific Processes

Explanation

An explanation answers a question. Good explanations take into account the prior knowledge of the questioner and the "intent" of the question. Explanations are given by both teachers and students in the classroom. Students are often asked to explain a concepts as part of assessing their knowledge. Teachers are asked for explanations during all phases of instruction.

> Explanation

Extended STaR

Expanded version of Story Telling and Retelling - A Success For All approach.

Extension Teaching

Extension teaching takes two forms. The most common form is outreach programs where educators travel to

the student's location to provide instruction on topics of professional or personal interest. Agricultural extension experts who travel from their home college to provide onsite support to farmers are the classic example of this approach. Another form is a constructivist method related to application teaching. It is centered on activities which proceed from more basic ideas to more complex. The expected products generated by the students are more variable than in application teaching.

Ten Guiding Values of Extension Education

Welcome to the Journal of Extension

Extrapolation of Data

Given a set of data, students are asked to predict what would occur outside the range of that data.

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Facilitative Questioning

To "facilitate" means to help another person accomplish something. Facilitative questioning is an approach whereby a teacher or counselor poses open-ended questions to the student to allow them to explore ideas that may be complex or emotionally difficult. In writing classes, the purpose of facilitative questions is to allow the teacher to give assistance to the students without actually contributing new ideas to the work being written. In counseling, the purpose of facilitative questions is to allow the student to generate their own solutions to problems or tasks without being unduly influenced by the counselor's ideas. Facilitative questioning is used most often in situations where there is no right answer but the solution is dependent on what is best for the individual.

Adult Bullying: Examples of useful facilitative questions

Fairs

A theme-based event that includes exhibitions of products or skills, along with some "fun" aspects. The tone can range from purely academic (as is typical of science fairs) to carnival-like (as is typical of culture fairs). Fairs provide an opportunity for students to perform and to learn about long-range planning of events, in addition to the underlying subject content that forms the theme of the fair.

Science Fairs homepage

Feedback

Any means by which a teacher informs a student about the quality or correctness of the student's products or actions. Different forms of feedback include formal assessments (Example: a written grade on a student project), oral and written guidance (Example: "Good, but needs more work on the Conclusion"), and casual comments or nonverbal signals (Example: a nod indicating correctness or agreement).

FFOE

A creativity technique using the acronym FFOE: Fluency (many ideas), Flexibility (variety of ideas), Originality (unique ideas), and Elaboration (fully developed ideas).

Brainstorming Strategies

Field Guides

A useful student project is to guide students in the creation of a field guide. Field guides typically provide information that would be needed outside the classroom in the study of such diverse fields as plants, animals, architecture, cultures, or business practices. Normal components of a field guide include: common names, formal names, definitions, graphic illustrations, explanations of the range (where you expect to find things), relevant dates, key facts, warnings, and "interesting notes."

Create a Field Guide of Local Plants

Field Observations

Students leave the classroom to observe events, organisms, and objects in their natural surroundings. Field observation usually includes the collection and recording of data in a field journal.

Field Trips

A field trips is any activity that occurs outside the classroom for the purpose of providing hands-on experience with objects or people that only occur in certain places. Target locations for field trips can include museums, zoos, places of business, farms, nearby colleges, theaters, historical monuments or buildings, forests, wetlands, nature parks, or the grounds of the school itself.

Field Trip to School

Films

Motion pictures can be used to enhance learning of literature, language, or historical events.

Film in the Classroom

Filmstrips

A form of presentation, in which a series of still images are projected onto a screen. To accompany the images, usually an audio tape is played that includes cues to advance the film to synchronize the image and audio portions. This format is still used in a few places, but has largely been superseded by videotapes and interactive web pages.

Find Someone Who

A variation of the Human Scavenger Hunt. Usually this activity is used to encourage students to seek out the students in class whop know the answers to specific content questions. This works most effectively if each student is an "expert" on a different topic or sub-topic than the others in the class.

FIND SOMEONE WHO

Find Someone Who...

Warm-Up: "Find Someone Who"

Find the Fib

Team activity where groups of students write two true statements and one false statement, then challenge other teams (or the teacher) to "Find the Fib."

Find the Rule

Students are given sets of examples that demonstrate a single rule (like "i before e except after c.") and are asked to find and state the rule.

Find Your Partner

A method for assigning students to groups and at the same time reviewing previous concepts. Equations, sentences, or questions and answers are written on a single piece of paper, then the parts of the sets are cut apart. The parts are distributed to students who compare papers with other students until they find their match.

Finding and Investigating Problems

One key element of scientific research is finding and investigating problems. Exposing children to real life data and asking them to "create" problems from this data can result in more meaningful problem-solving and a deeper understanding of "what science is."

Finding Clues in a Picture

An activity where the teacher guides students to find clues about reading by asking a series of leading questions.

Finding Clues in a Picture - How to

FIP (First Important Priorities)

Edward de Bono's process for listing, then prioritizing options. Useful in decision-making and in

strengthening critical thinking skills.
> [FIP: First Importance Priorities](#)

First Important Priorities (FIP)
> Edward de Bono's process for listing, then prioritizing options. Useful in decision-making and in strengthening critical thinking skills.
> > [FIP: First Importance Priorities](#)

First TRIP (1st TRIP)
> A reading strategy consisting of: Title, Relationships, Intent of questions, Put in perspective.

Fishbone
> An organizing tool to help students visualize how many events can be tied to or contribute to a result.
> > [Fishbone Mapping](#)

Fishbowl
> Discussion format where students are selected from the class. They sit in front of the class as a panel to discuss topic while class observes. Then discussion is opened to whole class.

Five Plus One (5 + 1)
> Direct instruction variation where the teacher presents for five minutes, students share and reflect for one minute, then the cycle repeats.

Five Whys?
> Asking a chain of "why questions," with each question deeper into the root cause of a problem.
> > [Five WHYS?](#)

Five Words - Three Words
> Students list five topic-related words independently. Students are grouped and share words. Groups pick best three words and explain to class.

Flash Cards
> Traditional flash cards are note cards with a question, problem, or fact on one side, and the answer or a related fact on the other side. Flash cards can be used by individual students for independent practice, or can be used by pairs of students to practice as a team. More recently, online flash cards have appeared on the Internet. Online flash cards take many forms, but typically include either a box where you can type in your answer, or have sets of answers to choose from.
> > [Flashcard Exchange](#)
> > [Printable Sign Language Flash Cards](#)

Flow Charts
> Flow charts are graphical depictions of processes or relationships. Typically flow charts include icons showing particular processes or steps, and arrows indicating paths.
> > [Flow Charts](#)

Flowers
> A vase with fresh flowers on the teacher's desk or near a window can positively alter the mood of many students. They can also be used as "spur of the moment" manipulatives for many activities. Flowers can be dissected in a science class, used as models in a drawing class, or used as a writing prompt for a writing activity.

Focused Imagining
> A form of guided imagery where students are led to form mental images under the guidance of the teacher. Can be done either through written directions or step-by-step oral directions from the teacher.

Focused Listing

Students make lists with the purpose of sharing them during a subsequent discussion or collaborative activity.
Focused Listing

Force Field Analysis

A decision-making tool in which all forces for and against a plan are considered and evaluated.
Force-Field Analysis
Force Field Analysis

Forced Analogy

Make analogies by comparing problem term to a randomly selected term (for example, compare algebra to a cracker). Then use the new combinations to solve a problem or create something.

Forced Choice (Activity)

A classroom activity in which a small number of choices are placed around the classroom and students are asked to examine all the choices, then stand next to their choice. Students selecting the same choice then discuss reasons or advantages and disadvantages of their choice.

Forced Choice (Assessment)

Forced Relationships

A variant of the Forced Analogy approach to generating possible solutions to problems. In Forced Relationships, objects are paired to a seemingly unrelated task and students are forced to use the unrelated objects to accomplish the task. For example, the students might be told they need to water the flowers in the windowsill box using the water from the sink across the room, and their only tools are a flashlight and a piece of paper. Possible solutions would be to take apart the flashlight (placing the parts on the paper) then use the handle as a cup to carry water, or the paper could be folded into a temporary cup then discarded after the watering was done.

Forecasting

Forecasting is a kind of extrapolation in which current trends (in weather, or in the economy) are analyzed and predictions are made about future events based on those trends.

Formations

Certain types of information can be illustrated by having groups of students stand in certain positions to make shapes representing answers. If the answer is a "2," for example, students can form the number two by where they stand in the room. In Formations, the teacher asks a series of questions, all of which have "formable" answers, then the students create the answers by their movements.

Formative Assessment

Formative and Summative Assessments in the Classroom

Formulas

Formulas are mathematical expressions using symbols to represents real-world quantities. Students can generate, use, or solve problems with formulas.

Forum

A panel in which members talk freely with the audience.
Setting up Community Events and Forums

Four Corners

Label the four corners of the room with "Disagree, Strongly Disagree, Agree, Strongly Agree." Read a controversial statement and have students write on a piece of paper whether they agree, disagree, strongly agree, or strongly disagree with the statement. When all are finished writing, have students go to the corner

representing their point of view. All student sharing a point of view work together to collect evident and present an argument supporting their beliefs.

[Four Corners](#)
[Four Corners](#)

Frayer Model

Vocabulary development tool in which students use a graphic organizer to categorize their knowledge about a word.

Free Association

Creativity technique similar to brainstorming.

[Free Association](#)

Free Write and Share

Students write in response to some stimulus (music, topic oriented, question oriented), then share their writing with the class.

[Free write and share](#)

Freewriting

Freewriting is a timed activity to stimulate the flow of ideas and words. Students are given a topic and must write everything they can think of about the topic. The rules are that students must not stop writing, even if they "run out of things to say," and they may not do any editing or criticism during the writing. After the time is up, you can either read the writing aloud, or scan what you have written and pull out ideas or phrases you can use.

Fussing with Definitions

A formal, cooperative method for rewriting definitions.

[Fussing with Definition](#)

Fuzzy Logic

Many statements are not true or false but lie somewhere in between. To assign value to statement, false = 0, true = 1, statement can fall anywhere on the continuum between 0 and 1. Also known as Fuzzy Thinking.

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[# A B C D E F G H I J K L M N O P Q R S T U V W X Y Z](#)

Gallery

Similar to Carousel Brainstorming.

[Gallery Method](#)
[Gallery Walk](#)

Games

Games can take many forms, but in the classroom, any activity that involves a competition, social interaction, and some form of prize or award would be considered a game. Classroom game activities are typically not graded, and student participation is based on the desire to contribute to a team or to individually achieve some prize or recognition. Usually games have "winners." Ideally, even the "losers" of the game should feel that the experience was enjoyable.

[Games That Teach](#)
[PBS Kids](#)

Gaps

Students are given sentences or sequences with gaps (missing words, numbers, or symbols) and are asked to fill in the gaps.

Gardens

Students plan, plant, and tend a garden. As a side activity, students also will need to plan what to do with the products of the garden and how (if necessary) to return the land to its original state.

Extension Master Gardeners Valued by Teachers in School Gardening Programs
School Gardens
School Gardens

GATHER Model

An inquiry-based model used in the teaching of history. The steps include: Get an overview, Ask questions, Triangulate the data, Hypothesize, Explore and interpret data, and Record and support conclusions.

Promoting Historical Inquiry: GATHER Model

General Inquiry

A teaching strategy in which students learn to identify and explore problems, then use the discovered facts to form a generalized response to the problem.

General-to-Specific Sequencing

An instructional approach in which objectives are presented to learners beginning with general principles and proceeding to specific concepts. Compare to: Chronological, Known-to-Unknown, Part-to-Part-to-Part, Part-to-Whole, Part-to-Whole-to Part, Spiral, Step-by-Step, Topical, Unknown-to-Known, Whole-to-Part

Generalizing

To restate information to show basic principles.

Principles for Learning Concept Classification

Generative Learning Model

A four phase method (preliminary, focus, challenge, and application) that encourages students to "do something" with information. This constructivist approach allows students to construct (or generate) meaning through their active use of information.

Generative Vocabulary Strategies

Examples include: Possible Sentences, Keyword Strategy, Vocabulary Self-Collection Strategy. (VSS)

Genetic Epistemology

Jean Piaget proposed that children pass through different stages of cognitive development. For example: during very early stages, children are not aware of the permanence of objects, so hiding an object causes the child to lose interest. Once the child has acquired the ability to think of the object as still existing even when out of sight, the child will begin to look for the missing object.

Piaget's Genetic Epistemology
Piaget

Gestalt Theory

Max Wertheimer's theory that deals with the nature of whole problems or concepts. Gestalt theory stresses the importance of the relationship between objects in a group and the relatedness of concepts. Gestalt is about "the big picture" and originated as a response to the traditional scientific approach of breaking things down into their component parts and seeking understanding by analyzing the parts. Systems are more than the sum of their parts, and learners know more than the sum of the bits of knowledge they have memorized. Many of

the current holistic approaches are based on Wertheimer's Gestalt Theory.

Gestalt Theory (Wertheimer)

GESTALT THEORY - by Max Wertheimer (1924)

Goals

Gowin's Vee Diagram

A form of graphic organizer developed by Bob Gowin to help students develop hierarchies from their reading and prior knowledge and use that knowledge to make sense of their central question or research interest.

The Vee Diagram: A Guide for Problem-Solving (PDF)

Grab Bag

Near the conclusion of a lesson, have a student draw an object from a bag. The student must explain or illustrate how the object is related to what they have learned.

Myth Grab Bag

Grant Writing

Grant writing is most often assigned in college or professional courses, but could be done at higher secondary levels. A grant is a financial award, either from government or industry, and intended to fund a project with wide applications. Grant writing, as a process, involves finding and investigating problems, writing persuasive text, researching related work, and demonstrating the feasibility of the proposed work.

GRANT WRITING ASSIGNMENT

Graphic Organizer

Graphic organizers are visual frameworks to help the learner make connections between concepts. Some forms of graphic organizers are used before learning and help remind the learner of what they already know about a subject. Other graphic organizers are designed to be used during learning to act as cues to what to look for in the structure of the resources or information. Still other graphic organizers are used during review activities and help to remind students of the number and variety of components they should be remembering.

Graphic Organizers that Support Specific Thinking Skills

Graphic Organizers - NCREL

Graphic Organizers - Index

Graphing

A diagram that represents numerical data.

Kids Graphing Page

Greeting Cards

Students design and create greeting cards to share with friends and relatives.

Lesser-Known Holiday Greeting Cards

Greetings

Greeting each student at the door allows teachers to establish an individual, positive contact with each student that is not possible once the entire class is assembled.

Meeting and Greeting Students at the Beginning of Class

Group Investigation

The class is divided into teams. Teams select topics to investigate, gather information, prepare a report, then assemble to present their findings to the entire class.

Group Investigation

Group Work

Any method involving two or more students.

Group Writing

Students work in teams of two or three to brainstorm, write, and edit a single document.

Group-Based Instruction

Guess and Check

One approach to solving math problems is to Guess at an answer, then Check to see if it is the correct solution.

Guess and Check
Guess-and-Check

Guess Box

An object is hidden in a container and students ask questions about the content of the box in order to identify it and its characteristics.

Guest Speakers

Guest speakers come into the classroom to share specialized knowledge about their profession or their hobbies. Guest speakers help to form connections between knowledge acquired in the classroom and real-world applications.

Ideas for using guest speakers in the classroom

Guest Teachers

Guest Teacher has two meanings. The first meaning is when a teacher teaches a class on a topic in which he or she specializes and the normal teacher for the class is present to learn from the presentation. An example of this kind of Guest Teaching might occur if a math teacher also happened to be an expert on the American Civil War and had artifacts to share and explain to a a social studies class. More recently, substitute teachers are being referred to as "guest teachers" to remind students that these teachers are guests in the school.

National Substitute Teachers Alliance
Guest Teacher.com

Guided Discovery

Teaching model where students learn through explorations, but with directions from teacher.

Guided Discussion

Similar to recitations, but the purpose is to help students make interpretations.

Guided Imagery

Students are helped to visualize through daydreams "structured" by the teacher.

Guided Practice

Guided Practice is a form of scaffolding. It allows learners to attempt things they would not be capable of without assistance. In the classroom, guided practice usually looks like a combination of individual work, close observation by the teacher, and short segments of individual or whole class instruction. In computer based or Internet based learning, guided practice has come to mean instructions presented on the learner's computer screen on which they can act. This action may be to perform some task using a program that is running at the same time, or it may be to interact with a simulation that is embedded in the program or web page.

Guided Practice

Guided Questioning

A form of scaffolding for reading in which the teacher's questions start out with many clues about what is

happening in the reading, and then as comprehension improves, the questions become less supportive.

[When Your Children Answer Yes or No](#)

Guided Reading

Structured reading where short passages are read, then student interpretations are immediately recorded, discussed, and revised.

Guided Writing

Guided writing can take many forms. It can consist of a teacher making suggestions to an individual student, or it may be whole class brainstorming followed by a question and answer session to clarify specifically what will be written. In all forms of guided writing, the teacher's role is to encourage student responses.

[Sample Guided Writing Lesson](#)
[Guided Reading & Writing](#)

Habits of Mind

Habits of Mind centers on the idea that students can learn more effectively if they regulate their own thought processes.

[Habits of Mind - NCREL](#)
[The Habits of Mind Or How People Behave Intelligently](#)
[Habits of Mind](#)

Hands-On

Hands-On means any instructional activity that is emphasizes students working with objects relevant to the content being studied. Variations include: Hands-On Science, Hands-On Math, and so on.

Helper

Assigning responsibilities to students encourages responsibility and serves as a form of recognition and pride for many students. Being "in charge" of the student lunch count or clean-up of the play area helps students to learn leadership skills.

Heuristic

Making an educated guess to reduce the amount of time needed to solve some types of problems.

[Heuristic Search](#)

Hidden Word Game

Writing sentences in which a word is hidden. For example: The school mouse ate a cherry for her morning snack. has the hidden word TEACHER (The school mouse aTE A CHERry for her morning snack.)

Hierarchical Analysis

Hierarchy

A form of classification in which involves ranking a group of objects or concepts.

[Hierarchy Diagram](#)
[Classification](#)

Higher Order Thinking Skills (HOTS)

In the simplest sense, higher order thinking is any thinking that goes beyond recall of basic facts. The two key reasons to improve higher order thinking skills are first, to enable students to apply facts to solve real world problems, and second, to improve retention of facts. In addition to the basic meaning of "higher order thinking skills" HOTS is also used to refer to a specific program designed to teach higher order thinking skills through

the use of computers and the Socratic Method to teach thinking skills.

> [Higher Order Thinking Skills (HOTS) Program](#)
> [CHAPTER I H.O.T.S.: Higher Order Thinking Skills Project](#)

Highlighting

Marking key concepts with a different color to emphasize importance.

Holistic Instruction

Involves the use of problems or activities which are multi-dimensional or multidisciplinary. Usually involves long- term and authentic activities.

> [A Holistic Approach to Math Learning for K-2](#)

Holistic Learning

Involves the use of problems or activities which are multi-dimensional or multidisciplinary. Usually involves long- term and authentic activities.

> [A Holistic Approach to Math Learning for K-2](#)

Homeschooling

In this approach, parents take full responsibility for the education of their children by preparing and presenting lessons at home.

> [Homeschool World](#)

Homework

Homework is work done outside the classroom. Homework tends to fall into one of two categories. The commonest kind of homework is work assigned by the teacher that the student could theoretically have completed in class (given time). This kind of homework is intended to give students extra practice with skills or concepts that have already been presented or demonstrated. The second kind of homework is work that MUST be completed outside the classroom. This type of homework may be a project the student must complete on their own time or may be a kind of work that involves resources outside the classroom.

> [HOMEWORK HELPS](#)

Homework Checking

Homework can be checked by students, parents, teachers, or by peers of the student. There are benefits and liabilities to each of these approaches. From the standpoint of liabilities: if the only person checking the homework is the student, inexperience with the material may result in errors, even if a key is used. If homework is checked at home by parents, then the parent would help to correct any mistakes and the teacher (not seeing that the student had difficulty), would proceed too quickly to the next subject. If the only person correcting homework is the teacher, the time consumed for proper checking would take away from planning and preparation for other activities. Finally, allowing peers (fellow students) to check classmates homework bothers many because it results in a decrease in privacy for students who may not want peers to know his or her state of understanding.

> [Peer Grading Passes Muster, Justices Agree](#)

HOTS (Higher Order Thinking Skills)

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> [Higher Order Thinking Skills (HOTS) Program](#)
> [CHAPTER I H.O.T.S.: Higher Order Thinking Skills Project](#)

Human Treasure Hunt

Often used as an introductory activity. Good for introducing and relaxing students during the first week of class.

Humor

Humor can be helpful in motivating students and in creating a community spirit.

Hypermedia

Hypotheses

A tentative explanation for patterns or observations.

I'm Watching Someone

Behavior management technique where the teacher tells students that two students have been selected to be carefully observed, and if they behave well, the entire class will receive a reward. If the behavior was positive and there is a reward, the students are told who was being watched.

I'm Watching Someone

I've Done Something You Haven't Done

An ice breaker in which each student is challenged to describe to the class something they have done that they believe no one else in the class has done.

Ice Breakers

Activities designed to help people get acquainted in new situations or environments.

Idea Recording

Mechanisms to capture ideas whenever they occur.

Idea Spinner

Teacher creates a spinner marked into four quadrants and labeled "Predict, Explain, Summarize, Evaluate." After new material is presented, the teacher spins the spinner and asks students to answer a question based on the location of the spinner. For example, if the spinner lands in the "Summarize" quadrant, the teacher might say, "List the key concepts just presented."

Ideatoons

Problem-solving and creativity technique where students draw ideas on index cards, then rearrange the cards to search for new, possibly useful patterns.

Identifying

To identify an object or concept involves the student being able to recognize an object or concept to which the student was previously exposed.

Illustrated Talks

A form of lecture in which the speaker tells how to do something, or shares information with the audience, but does not "show" the audience how to do anything. The talk is supported by visual aids like charts, diagrams, and photographs.

Illustrating

Using pictures or diagrams to explain or decorate.

Tips on Illustrating Your Stories - by Pam Yourell

IM (Instant Messenger)

Imagineering

Fusion of imagination and engineering. Visualize solutions to problems using existing scientific knowledge.

Imitation

Copy painting, style of writing, etc.

Immersion

In language immersion, all learning is carried out in a language that is not the student's native language.

Spanish Two-Way Immersion Program (PDF)

In What Ways Might We (IWWMW)

I W W M W - - - (In What Ways Might We----)

Inclusion

Inclusion is the process of providing all students with the opportunity to participate in the school community regardless of their individual strengths or limitations.

Inclusion

Independent Practice

Practice done without intervention by the teacher. This approach includes many activities done with a computer.

Independent Reading Programs

Programs in which students proceed at their own pace through reading and take assessments when they feel prepared. Accelerated Reading is one example of an Independent Reading Program. In some programs, students may choose their books from a pre-selected pool of books. In other cases, the reading is ordered and students read the books in a particular sequence.

Independent Reading Program

Individualization

Individualized Instruction

Induction

Using information from specific facts or ideas to construct general principles. (compare to deduction)

Induction Matrix

A form of graphic organizer using a grid to compare concepts and categories. The matrix is filled in at the beginning of a lesson and as students learn more, they correct and update the matrix to reflect new knowledge.

Inductive Inquiry

Teaching that follows the cycle used in scientific inquiry. Steps usually include: searching the literature, making observations, generating hypotheses, designing and carrying out experiments, then analysis of results and restarting the cycle.

The Logical Cycle of Inductive Inquiry
Inductive/Inquiry Planning Template

Inductive Thinking

Analyzing individual observations to come to general conclusions. Proceeding from facts to the "big picture." Inferential Strategy Like DR-TA but occurs only before and after reading.

Inferring

A thinking skill, demonstrated when a student can make conclusions based on reading or prior knowledge.

Information Processing Model

Information Processing theorists study learning in terms of how memories are acquired and then later accessed. Key theorists in this field include Robert M. Gagne and George A. Miller.

Information Processing Theory (G. Miller)
Gagne's Nine Events of Instruction: An Introduction

Innovating

Altering text or work in such a way that the original is still recognizable, but new concepts or contexts are introduced.

Inquiry

A system in which students solve problems or answer questions by forming tentative answers (hypotheses), then collecting and analyzing data to provide evidence for or against their hypotheses.

Inquiry in the Everyday World of Schools

Inside-Outside Circle

Review technique. Inside and outside circles of students face each other. Within each pair of facing students, students quiz each other with questions they have written. Outside circle moves to create new pairs. Repeat.

Instant Messenger (IM)

Integrative Learning Model

A holistic approach that works to strengthen all aspects of a student's life (academic, physical, personal, and emotional).

Interactive Video

Any of several systems that allow a user to interact with a video by making choices between video segments. Delivery modes can include: CD-ROM, DVD, or a computer linked to a VHS tape system.

Interactive Writing

Collaboration between the teacher and the student, with both writing parts of the final composition.

Interdisciplinary Teaching

Traditional elementary and secondary classrooms divide instruction into categories (disciplines) such as "reading," "math," and "social studies." Interdisciplinary teaching involves any effort on the part of an instructor to design learning activities with products and activities to related to more than one discipline.

What is Interdisciplinary/Cross-Curricular Teaching?

Interpolation of Data

Given a set of data, students are asked to calculate an expected value that occurs between two given data points.

Interviews

Interviews may be by the student or may be a form of assessment of the student.

Intra-Act

Students' valuing of reading is expressed by students responses to opinion questions and their predictions of classmates' opinions on a "game sheet."

Invented Spelling

Invented spelling is a natural product that occurs as children begin learning to write. Children attempt to use the sounds of the letters they know to write words whose spelling they do not know. How the teacher responds

to the invented spelling differs in different types of classrooms. In more holistic approaches to literacy, students are encouraged to experiment and the invented spelling may or not be corrected depending on the purpose of the writing. During the first few years of school, children gradually replace their invented spellings with those acquired through formal instruction.

    Invented Spelling

Invention

An open-ended problem-solving task. Is the process of creating something to fill a need.

Invention Teaching

A constructivist approach. Students begin learning with an activity (as in Discovery Teaching), but students may generate many possible solutions. Students acquire basic and advanced knowledge in random order.

Inventory Questioning

Inventory questions are designed to collect information about students' interests, to activate prior knowledge, or to help students become aware of their existing beliefs and background. Often used when dealing with controversial issues, or in the form of a "personal inventory" to explore emotional problems or limitations.

    SAMPLE INTEREST INVENTORY QUESTIONS

Inverted Pyramid

A writing format in which the most important information is presented first, followed by the next most important information, and closing with the least important information. Most commonly used in news reporting, but useful in teaching students to learn to prioritize information. Also called the Journalism Model.

    Inverted pyramid story format
    Inverted Pyramid Checklist

Investigation

Identifying what is known about a topic. Three basic types are: Definitional (What are...?), Historical (How...? or Why...?), and Projective (What if...?).

IWWMW (In What Ways Might We)

    I W W M W - - - (In What Ways Might We----)

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Jeopardy

Like the television game. Many variations (individual or team competitions). Board with "answers" is prepared in advance (for overhead or on large cardboard sheet). Students respond with acceptable "question."

Jigsaw

Cooperative activity. The basic steps include: reading, meeting with expert groups, report back to main team, demonstrate knowledge through a test or report.

Jigsaw II

Cooperative activity. Basic steps: Read with group, discuss individual topic with expert groups, report back to team (to teach them what you learned in your expert group), test, team recognition.

    Jigsaw II

Jobs

When working with high school students or adults, making connections between classroom learning and the students' out of class jobs helps students understand the value of what they are learning.

Jokes

Amusing story or description that can be told by the teacher to activate interest. Alternatively, students can create topic-related jokes to demonstrate understanding of concepts.

Journal

A form of writing. Typically done for a few minutes each day. The writing is done in a notebook and is often used to encourage reflection or exploration of ideas of interest to the students. Journal writing is typically not graded, and in some instances, is not read by anyone but the student. In other instances, the journal can be used to establish an ongoing written dialog between the student and the teacher.

> JOURNALS
> Journals in the Classroom

Journalism Model

A writing format in which the most important information is presented first, followed by the next most important information, and closing with the least important information. Most commonly used in news reporting, but useful in teaching students to learn to prioritize information. Also called the Inverted Pyramid.

Judging

A form of critical thinking that involves forming opinions about a topic.

Jumbled Summary

Teacher presents randomly ordered key words and phrases from a lesson to students. Students put the terms and phrases in a logical order to show understanding.

Justifying

To explain why one choice is better than another. Typically used as part of an assessment that asks students to "justify" or explain the merits of their answers.

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Key Word

Asking student to find keywords, or supplying keywords to students

Keyhole Strategy

A writing format in which the author begins with the main idea, narrows the idea until the end of the first paragraph, uses the "body" of the writing consists of well-rounded paragraphs, then in the last paragraph, builds to a broad conclusion. Diagrammed, the format looks like an old-fashioned keyhole.

> The Keyhole Essay

Keys

In classes where students are allowed to check their own homework, teachers can provide a notebook containing detailed answer keys demonstrating how to do complex problems or examples of desirable answers. Sometimes used in Independent Reading Programs or Mastery Learning to allow students to learn at their own pace. The "Answer Key" books are usually kept on the teacher's desk or a table nearby to ensure that students try problems on their own and only check their answers under supervision.

Keyword Memory Method

In the keyword method, students generate keywords that are similar to the concepts to be memorized, then put the keywords into an arrangement that can be mentally "pictured." For example, given the task of memorizing "St. Paul is the capital of Minnesota," the student would first break up the phrase into five related words: saint paul cap mini soda." Finally the student would image their favorite "Paul" with a halo as a cap and drinking a very small soda.

Keyword Strategy

The use of keyword memory methods to build vocabulary

KJ Method

Creativity or problem-solving technique in which ideas are written on cards, then the cards are grouped, and finally the grouped ideas are classified.

KJ-Method

Knowledge Grammy Awards

Near the completion of a unit, students nominate and vote on which knowledge was most useful to them.

Using keywords to remember vocabulary

Knowledge Rating

Before reading, students skim reading and select words from the reading, then rate their familiarity with the words. In some instances, teachers may give students preselected words to rate.

Knowledge Rating Sheet

Known-to-Unknown

An instructional approach in which objectives are presented to learners beginning with known concepts and proceeding to unknown concepts.. Compare to: Chronological, General-to-Specific, Part-to-Part-to-Part, Part-to-Whole, Part-to-Whole-to Part, Spiral, Step-by-Step, Topical, Unknown-to-Known, Whole-to-Part

KWHL

"Know, Want to know, How to find out, Learn"

KWHL - NCREL

KWL

"Know, Want to know, Learn" Students identify what they know about a topic, what they want to know,and after reading or instruction, identify what they learned or would still like to learn.

KWL - NCREL

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Lab Practical

Labeling

A form of classification that includes categorizing and then naming a concept, object, action, or event.

Laboratory

Classroom activities performed in an environment that fosters inquiry through experimentation and exploration. Laboratories typically have specialized equipment to permit students to perform experiments in biology, chemistry, physics, meteorology, geology, and occasionally psychology.

Laddering

Changing a discussion to consider categories that are either more inclusive or less inclusive than the level of the current topic. For example, in a science class, the group might "ladder up" if they switch from discussing primates to a discussion of all mammals. The group would be "laddering down" if the switched from discussing primates in general to a discussion of gorillas. Laddering up tends to result in more abstract discussions while laddering down to the lowest levels results in more concrete discussions.

[Laddering](#)

LARC (Left and Right Creativity)

Use drawing to stimulate right brain, then harness to left brain to creatively solve problems.

Lateral Thinking

Edward de Bono's approach to problem-solving and creativity. Lateral thinking consists of changing your perspective to solve a problem (for example, if baby endangers Christmas tree, instead of putting baby in playpen, put tree in playpen). Don't limit yourself by only considering "intended uses."

[Lateral Thinking (DeBono)](#)

Learner Analysis

Learner Profiling

Learning Centers

Individual stations where individual or paired students explore resources. Designed to extend knowledge introduced in whole group instruction.

[One way to set up centers in your classroom:](#)

Learning Contract

A form of individualized, active learning, in which the student proposes a course of study to satisfy an academic requirement and a teacher checks and approves the contract. The student typically works independently until assistance is needed from the teacher, at which point it is the responsibility of the student to ask for help. This form of instruction is becoming more common in universities and in distance learning. A second variety of learning contract is sometimes undertaken with elementary or secondary students in which the teacher takes a more active role and the function of the contract is to focus the student's attention on specific skills or concepts to be learned.

[Learning Contracts](#)
[Learning Contract Generator](#)

Learning in Context

Learning Labs

A learning lab is an environment that provides tools and educational support to enable learners to explore content at their own pace. There are many varieties of learning labs. Computer learning labs typically consist of rooms full of networked computers or work stations along with at least one human assistant. Math learning labs may be nothing but an empty classroom with a few reference books and one or more math tutors who roam the room to assist learners as they work. Language learning labs typically provide audio playing and recording equipment to allow learners to listen to the language they are learning.

Learning Log

Students write responses to teacher questions as summary of what they have learned or what they do not understand. Used for reflection and to inform teacher of progress.

Learning Modules

Like a portable learning center. Many are designed to be used as the primary instruction on a subject and aren't preceded by whole class instruction.

Learning Packets

Designed by a teacher to help student make up missed work due to absence.

Learning Stations

Individual stations where individual or paired students explore resources. Designed to extend knowledge

introduced in whole group instruction.

Learning Style Inventory

Assessments taken by students to learn about their learning styles and preferences.

Index of Learning Styles Questionnaire

Keirsey Temperament Sorter

Learning Styles

While each of us learns differently, we can categorize an individual's strength and weaknesses for a number of different factors which affect the way we learn. It is possible to refer to someone as a "visual learner" or a person who prefers "step-by-step" directions. By assessing, and then planning for each student's individual learning style, a teacher can improve the chances that each student will learn.

Keirsey Temperament Sorter II - Online Personality Test

Learning Styles

Learning Modalities

Learning Together

Learning Together, developed by David and Roger Johnson, is a set of step-by-step instructions to assist teachers in managing a cooperative classroom. Superseded by 'Circles of Learning."

Learning Together and Alone

Cooperative learning approach, as outlined by David W. Johnson and Roger T. Johnson. Unlike other cooperative learning strategies which tend to be periodic activities, "Learning Together and Alone" provides guidelines for the creation of a generalized cooperative classroom.

Lecture

A direct instructional method. The teacher talks with the purpose of transmitting information. Lectures may, but often don't, include visual aids or notes to accompany the talking.

Lecturer's Guide

Left and Right Creativity (LARC)

Use drawing to stimulate right brain, then harness to left brain to creatively solve problems.

Letter Activities

Activities designed to help young children make connections between the appearance of letters and their sounds. Usually includes a tactile or kinesthetic component (making a snake out of clay and forming it into the letter "S" for example).

Activities by the Letter

Letter and Sound Relationships

Letter activities that concentrate on pairing letters and letter combinations that result in the same sound.

Letter Games

Letter activities to which an element of competition or fun has been added.

Letter games

Letter Writing

A writing activity that encourages students to think about a specific audience.

Teacher's Guide to Fun Letter Writing

Letters From Last Year's Class

At the end of the school year, have students write letters for your future students. These letters can include tips, activities to look forward to, or a description of some of the new concepts they can look forward to learning in the coming year. At the beginning of the next school year, put these letters on the desks of your

new students.

Leveled Books

Sets of books of varying difficulty. Typically students will be matched with books in the set based on each student's ongoing assessments and previous achievements with other books that are "leveled."

Leveled Books Database

Library Assistant

Acting as an assistant in the library not only provides students with an opportunity for Service Learning, but also teaches academic skills related to reading, categorization, use of computers, and social skills as student volunteers interact with library users.

Library Research

Many projects require research in the library to enable students to supplement the information they can find in their textbooks and on the Internet. To further encourage library research, teachers can provide guidelines for projects and writing assignments to encourage students to become familiar with using resources in the library.

Advice on Specific Aspects of Library Research:
Guidelines for Effective Library Research

Line-Up

Student teams are given concepts that can be put in order. Each team member holds one concept and the members line up to represent the correct order.

LINK (List, Inquire, Note, Know)

An activity to help students activate prior knowledge before beginning a new topic.

Link System of Memorization

Link one item to another to form a mental link. Uses visualization.

List - Group - Label

An activity to help students activate prior knowledge before beginning a new topic. Student teams divide list of key words into groups, then label each group.

List, Inquire, Note, Know (LINK)

An activity to help students activate prior knowledge before beginning a new topic.

Listen-Think-Pair-Share

Students listen to questions, individually think about a response, discuss their ideas with a partner, then share their ideas with the class.

Listening Center

Audio center where students can listen individually to books on tape, music, news, language lessons, taped stories, or other audio resources.

Listening Comprehension

Activities to promote active and critical listening. Activities often include reading passages aloud, then assessing student understanding through written or oral feedback.

ATTENTIVE AND CRITICAL LISTENING: DESCRIPTION

Listing

Making lists of words, objects or ideas. Can be used to organize thoughts before a writing activity, or as an assessments to demonstrate the ability to recall.

Literature Search

As a part of inquiry or research, students often need to search existing literature to find what is currently known about a topic. Libraries have specialized search tools students can use for a variety of topics. Internet searches typically use a combination of keyword searches on the Internet along with following a trail of references from known articles to find related work by known authors.

How to conduct a literature search

Live Plants and Animals

Providing live plants and animals in the classroom gives students the opportunity to learn respect for living things. Caring for living things enables students to learn responsibility. Careful observation and handling of living things in the classroom enhances the learning of many concepts.

The care of live animals in the classroom

Locating

Locating is to show or find the position of something. Students can find the location of places on a map, or demonstrate the location of a concept relative to other concepts in a hierarchy.

Long-term Projects

These projects are usually centered either on a theme, or to research and propose answers to open-ended questions.

Longitudinal Study

Looping

Looping describes an approach to writing and also describes the practice having a teacher teach the same class for more than one year. As an approach to writing looping encourages writers to write quickly (stream of consciousness), followed by reviewing what has been written and selecting key points from the writing to serve as the basis for another round of quick, but more focused writing. The student continues looping until the product of the writing meets the original specifications.

Lotus Blossom Technique

From central idea, propose eight new ideas. For each of eight ideas, propose and evaluate necessary details to implement ideas.

Luck of the Draw

All student's names are put into a container. At the end of class, a student's name is drawn at random from the container. At the beginning of the next class the student whose name was drawn is required to present a 3-5 minute review of the previous day's lesson.

Lunch with the Teacher

A good way for the teacher to get to know each student in a casual environment. Individual students or pairs of students eat lunch and socialize with the teacher. For young children, this experience is often enhanced if the teacher brings some small treat (a few cookies) to to share

Lurking

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

M-Learning (Mobile Learning)

Magazines

Used as a real world source of information.

Managing

Having students manage an activity or group to give students experience with management and planning skills.

Manipulatives

Manipulatives are objects used in the classroom to allow students to make connections to concepts through touch. Examples might include a bag of beans for counting, or a microscope for scientific inquiry.

How to Make the Most of Math Manipulatives

Map Making

Student map making can be tied to many objectives related to mathematics, social studies, art, reading, and problem solving.

Map Making/Floor Plans/Map Reading - Lesson Plans

Treasure Hunt

Map Reading

As a classroom activity, older students can be given maps and asked to find places or resources. Younger students can be given maps to local places and taught to orient themselves using the maps (orienteering).

Mascot

Creation or selection of a class mascot to promote a group identity.

Mastery Grading

Mastery Learning

Objectives for learning are established and communicated to students. Students progress at own speed and continue to work until their performance indicates they have mastered each set of objectives. (see criterion-referenced assessment)

Mastery Learning - Huitt

Mastery Learning

Match Mine

Pair activity in which one student draws, while the other waits, then the second student tries to copy the drawing of the first using only descriptions supplied by the first student.

Matching

Making matches can be done in many contexts. For younger students, cards can be matched if they have identical pictures or symbols. As they advance, cards with symbols or pictures can be matched with the real objects they represent. More mature students can match words with their definitions or mathematical expressions with their solutions.

Meal Planning

Lessons in which students plan meals can be used to teach skills in math, science, social studies, reading, and writing.

Nutrition on the Net -- Healthful Activities for Every Grade!

Meaningful Sentences

Given vocabulary terms, students can be shown sentences in which the terms are used in a context that helps them to understand the meaning of the terms, or as an assessment, students can be asked to write meaningful sentences containing key words.

Meaningful Use Tasks

A category of tasks described by Robert J. Marzano, et.al. Typically they are long-term, allow students to make choices, and require students to apply what they have learned.

Measuring

Activities to determine the size, extent, or dimensions of objects or values.

A Tour of Measurement

Medium Size Circle

First, 5-10 volunteers share something important they learned. Second, volunteers remember (restate) what one first people shared. Continue until each of the original speakers have been "remembered."

Memorization

Actively organizing and working with concepts or terminology to improve incorporating those concepts into memory.

Mental Arithmetic Techniques

Techniques to allow students to approximate answers to math problems. Mental math or mental arithmetic is important to allow students to be able to recognize when the answers they obtain using calculators are accurate.

BEATCALC: Beat the Calculator!

Mental Models

Students enter learning situations with existing knowledge. This knowledge is organized into patterns or models that help them explain phenomena. Learning involves adding to or altering the learner's existing mental models.

Operationalizing Mental Models - Jonassen

Mentors

Teachers and individuals from the community can act as mentors.

A Guide to the Mentor Program Listings (Canada and US Programs)

Message Board

A place where teachers and students can post information or work that may be of interest to others in the classroom.

Metacognition

Metacognition is "thinking about thinking." Learners monitor their own thought processes to decide if they are learning effectively. Taking a learning styles inventory, then altering study habits to fit what was learned about preferences would be an example of a metacognitive activity.

Metacognition

Metaphors

Metaphors can be used as examples by teachers, or students can form metaphors.

Microteaching

A form of practice teaching in which the student prepares a short (6-15 minute) lesson and presents the lesson to peers for constructive evaluation.

Introduction to Microteaching

Mind Map

A graphic way of organizing information to show the interrelationships between concepts.

Mind Mapping

Minimalism

John M. Carroll's approach to instructional design that stresses the importance of providing learners with meaningful tasks early in instruction and allowing them to make and then correct errors. Rather than guiding users step-by-step through a new learning situation, learner's are given tasks to try and then supported as they

make mistakes. This approach is often used in the design of instruction for users of computer systems and software.

    Minimalism

Minute Papers

An end-of-class reflection in which students write briefly to answer the questions: "What did you learn today? and "What questions do you still have?"

    ASSESSING STUDENTS AND YOURSELF USING THE ONE MINUTE PAPER AND OBSERVING STUDENTS WORKING COOPERATIVELY

    One Minute Papers

Mix and Match

Students make pairs or sets from randomly ordered objects or concepts on cards.

Mix/Freeze/Group

In this activity, the teacher poses questions to which the answer is a whole number and the students (as a group) answer the question by moving through the classroom to form groups of that size. For example, if the question were, "How much is 24 divided by 8?" the students would cluster to form groups of 3.

Mnemonics

Any of several techniques or devices used to help remember or memorize names or concepts.

Mobile Learning (M-Learning)

Mock Trials

Students learn about the legal system by assuming the roles of lawyers, witnesses, and judges to act out hypothetical legal cases.

    Mock Trial Society - Home page

Modeling

Teachers model behaviors or skills.

Models

Many forms of models are used in the classroom. In the concrete sense, teachers can provide three-dimensional objects (such as globes or models of molecules) for students to explore. Models can also be conceptual. The idea that the Earth revolves around the sun is part of a model of the the structure of the solar system.

    Building models enhances understanding

Modifying

Useful in the classroom as a scaffolding tool. Provide students with models or information that are nearly correct or complete and allow students to modify the model or information to make it more complete.

Module

Monitor

Student monitors as a mechanism to teach responsibility.

    Class Officers and Class Jobs

Morphological Analysis

Analysis of the meaning of words based on their sub-parts (morphemes).

    Morphological Analysis

Most Important Word

A during reading strategy in which the teacher reminds the students to think about the "most important words" for a particular reading assignment. The teacher gives some examples of some important words, then students work in groups to identify others.

Most Important Word

Muddiest Point

A question used to stimulate metacognitive thinking. Students are asked to name or describe the concept they understand the least (their muddiest point).

Sample Form: The Muddiest Point

The Muddiest Point (used in e-mail)

Multi-age Groupings

A classroom that includes children of many ages and ability levels.

Information for Parents About Nongraded (Multi-Age) Elementary School

Implementing a Nongraded Elementary Program

Multicultural Education Programs

Programs that focus on teaching children about other cultures, or adapting teaching to fit the cultures of the children being taught.

Cultural Background - NCREL

Teaching Tolerance

Tolerance.org

Multimedia

Typically refers to the presentation of information using a computer and including text-based, audio, and visual components.

Multiple Intelligences Theory

Howard Gardner's theory proposing that each person has many intelligences (including linguistic, spatial, musical, etc.). These intelligences work together. Educators should design instruction to foster the growth of all intelligences.

Multiple Intelligences - Armstrong

Multiple Solutions

Require students to find all acceptable solutions, not just the best.

My Name

Ice breaker activity in which students stand and explain what they know about the origin of their name. It could be to explain why they were given their particular first or middle names, or it could be to describe a little about the history of their family name.

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Names

Learning student names early is an effective way to minimize the potential for misbehavior and establish positive relationships with students.

The Name Game

Naming

A thinking skill requiring the learner to identify objects or concepts by name. One specific form of naming (Rapid Automatized Naming) is used as an assessment of learners' ability to acquire literacy skills.

Nature Walks

A form of field trip in which students explore and observe objects in their natural environment.

Nature Study - (Charlotte Mason's Cure for Tired Text-taught Tots)

Go For a Bird Walk

Negative Brainstorming

Like brainstorming, but participants propose things NOT to do or ideas that are NOT examples. Especially useful with young children in starting a list of student-generated rules. First have students generate actions not to do, then ask students to rephrase the ideas in a more positive way.

Negative Brainstorming

Newscast

Newscasts written and produced by students. Newscasts can either be about current happenings, or be used to explore historical events.

Newsletters

Ask students to make suggestions or write parts of the class newsletter to be sent home tom parents.

Classroom Newsletters

Newspaper Assignment for Cooperative Learning

Groups make their own newspapers following guidelines from the teacher.

Newspapers

Newspapers as a real world source of content, or as a product produced by students.

Using Newspapers in the Classroom

NEWSPAPERS IN EDUCATION - A sampling of ideas for using newspapers in your classroom

Nominal Group Technique

A formal structure to facilitate group problem-solving in a way that encourages all members to participate.

Nominal Group Technique (NGT)

Non-examples

A technique used in direct instruction to help students distinguish between similar concepts.

Nondirective Model

A student-centered teaching model.

Norm-referenced Assessments

Students are compared to each other. The students with the best performance (on tests, presentations, etc.) receive the highest marks. Grades will be distributed over a range (typically A through F) and not all students can receive the highest marks. (compare to criterion-referenced assessment)

Norm-Referenced

Note-Taking

The process of recording information presented by a teacher for the purpose of improving recall or understanding by the student. Notes typically include a combination of direct quotes of what a teacher says, diagrams, and additions by the student to add emphasis or to indicate areas where outside study may be required.

Note-taking Systems

Note-Taking Strategies

Novelty

A motivational technique to engage student early in instruction. Share something unusual with students to arouse curiosity.

Numbered Heads Together

Each student is assigned a number. Members of group work together to agree on answer. Teacher randomly selects one number. Student with that number answers for group.

Nutshelling

A form of summary. It usually involves asking a student to examine synthesize a brief statement that captures the essence of all that has been written or stated to that point. Often used in writing classes to help students find the key points in their own writing.

Nutshelling: Shrinking and then Growing Anew

Objectives

Share objectives with students to allow them to help plan learning activities to help them reach the objectives.

Observation

Observation of student by teacher. Observations may be used during performance assessments, or simply to gather informal information about an individual student's needs and achievements.

Observation Logs

An observation log is a form of journal kept by a student to assist in guiding observation. Students typically are asked to answer specific questions during the course of keeping an observation log. This technique is often employed in teacher education to guide students during their observation of classroom teachers.

Using an Observation Log to enhance studies in biology

Observational Learning

Albert Bandura's learning theory stating that much human learning occurs through our observation of the behavior of others. This theory is now often called "social learning" model or theory.

Observational Learning
Observational Learning

Observations

Observations made by students.

Observe a Leaf - Lesson Plan

Olympiads

Olympiads are formally regulated contests to stimulate interest and enthusiasm for a particular topic.

International Science (and Math) Olympiads
Mathematics Olympiad Learning Centre
International Geographic Olympiad

One Sentence Summary

Students are asked to write a single summary sentence that answers the "who, what, where, when, why, how" questions about the topic.

One Word Summary

Select (or invent) one word which best summarizes a topic . Write 2-3 sentences justifying the selection of the summary word.

One-way Presentation

One-way presentation describes any format in which the learner is passive and information is presented to the learner. One-way presentation modes include video, lecture, and demonstrations.

Open Discussion

Open discussion is the least structured form of discussion. The teacher sets the boundaries by describing the general topic for the discussion, but the direction of the discussion follows student interests within that topic.

INSTRUCTIONAL DISCUSSION

Open Text Recitation

A form of recitation in which students can use their books, notes, or other texts to support their answers.

Open-Ended Assessments

Operant Conditioning

B. F. Skinner's elaboration of basic behaviorist beliefs. Skinner believed that individual's learned when their responses to stimuli were reinforced.

Operant Conditioning

Opinion Sampling

Opinion sampling can be used either as an assignment for students. Teachers may also collect student opinions for the purpose of altering classroom structure.

OPV (Other People's Views)

Edward de Bono's strategy for examining the perspectives of others.

Other People's Viewpoints
OPV: Other People\u2019s View

Oral Examination

Oral Presentation

Oral presentations are a form of direct instruction. Lectures are the most common form of oral presentation in the classroom. Other forms of oral presentation include talks given to describe a project or research findings.

Oral Presentation Advice

Oral Reading

Oral reading of existing texts can be used to scaffold learning of vocabulary, pronunciation, and connections to related topics. During the writing process, oral reading becomes a proofreading strategy.

Ordering

Putting objects, concepts, or numbers in order.

Organic Model

An educational reform movement in which teachers collaborate to govern school policies and practices rather then following standardized guidelines handed down from distant policy makers.

Restructuring high schools can improve student achievement - Lee, Smith, and Croninger

Organizing

Organizing can include many different forms of interaction with objects and concepts. Organizing may include classifying, ordering, ranking, and comparing.

Other People's Views (OPV)

Edward de Bono's strategy for examining the perspectives of others.

Other People's Viewpoints
OPV: Other People\u2019s View

Outcome-based Learning

A school reform structure that typically requires students to pass specific exit exams or pass exit performances

by the time they finish the program. Instruction is adapted to guarantee 100% of the students can meet these exit requirements.

> Outcome-based Learning

Outlines

An outline is a skeletal version of some larger presentation or writing. Outlines usually include phrases or sentences that are critical to the topic and are arranged in the same order that the concepts will be (or were) presented in the final version. Outlines may be used to guide the creation process in writing or planning, during a lecture to help students follow the concepts being presented, or by students in their note-taking or studying.

Outside Experts

Outside experts can be used as guest speakers, volunteer to assist during projects, or as evaluators of student work.

> Outside People Help Judge Student Work

P-I-E (Point, Illustrations, Explanation)

A writing strategy to remind students about the key parts of a paragraph. As a cue, you can ask them if their paragraph has all the pieces of the P-I-E (Point-Illustrations-Explanation).

Paideia Approach

A school model in which all students follow the same rigorous program designed to provide a deep, liberal education. Traditional grading is discouraged and there is an emphasis on classical texts and Socratic methods.

> Paideia - Philosophy and Method

Painting

While typically restricted to elementary classes or to art classes at the higher levels, painting can be used in a wide variety of classes to encourage creative thinking and problem-solving. At all levels, planning and executing a painting involves the integration of many skills and promotes the development of higher order thinking.

> Painting encounters

Pair Problem Solving

A problem-solving technique in which one member of the pair is the "thinker" who thinks aloud as they try to solve the problem, and the other member is the "listener" who analyzes and provides feedback on the "thinker's" approach.

> IMPROVING STUDENTS' PROBLEM SOLVING SKILLS

Pair Project

Pair projects take two basic forms. In the commonest form, two students work together to accomplish some task. The task may be to produce a tangible object (like a poster or model) or may be to make a presentation to the class. The more global form of pair project is for classes in different parts of the world to collaborate on a project. The students perform similar activities in both locations then compare results.

Paired Annotations

> Paired Annotations

Paired Comparisons

A structured method for comparing many objects or ideas that involves creating a matrix, comparing each pair

individually, then using the paired comparisons to generate a ranked list.

    Paired Comparison

Paired Verbal Fluency

    A form of brainstorming. Used to "warm- up" students before a whole class discussion. Student 1 in pair remembers while student 2 listens. Roles switch. Repeat twice.

Pairs Check

    Pairs work together and check each other's work.

    Pairs Check (PDF)

PALS (Peer Assisted Learning Strategies)

    A structured reading strategy in which pairs of students use "Paragraph Shrinking," "Partner Reading," and "Prediction Relays."

    PALS- Peer Assisted Learning Strategies

Panels

    In a panel discussion, a small group acts as experts to answer the questions of the people in the larger group. In a classroom setting, students are selected to become experts on a topic and are given at least a day to prepare for the discussion. Panel discussions can also be held using outside experts.

Pantomime

    The expression of ideas using only movement and gestures. One form of pantomime commonly used in the classroom is the narrative pantomime. In narrative pantomime, the leader (usually the teacher) reads a passage of text and the others in the groups act out the passage to demonstrate the ideas using their movements.

    NARRATIVE PANTOMIME

Paradoxes

    Paradoxes are statements, or sets of statements, that appear to be contradictory. Using paradoxes in the classroom can encourage problem-solving, critical thinking, and logical thinking skills.

    Welcome to the Hotel Infinity!

Paragraph Shrinking

    Partners read in pairs. For the first paragraph, one reads and the other summarizes by stating the main idea of that paragraph. The partners then switch roles for the second paragraph.

Paragraph Writing Strategy

    There are many different formal strategies to help students compose paragraphs. The one thing these strategies all share is that they are similar to strategies for writing larger compositions, but are sometimes more explicit about the number of ideas to use in constructing a single paragraph.

Paraphrasing

    Paraphrasing involves careful reading, then rewriting the ideas of the author in your own words. Learning to paraphrase is critical to understanding how to do research from texts, then properly cite those texts without plagiarizing.

Parents

    Parents can assist in learning in an infinite number of ways. By keeping parents informed about the progress of their child and how they can help, parents can be involved both inside and outside the classroom. Just a few of the roles for parents include: coaching, tutoring, chaperoning, classroom assistant, and providing physical and emotional help during those times when a single person (the teacher) can't do everything.

    Including Families in Programs for Young Children
    Parental Involvement Improves Student Achievement

Part-to-Part-to-Part

An instructional approach in which objectives are presented to learners repeatedly, but each time parts of the curriculum are presented deeper concepts are explored.. Compare to: Chronological, General-to-Specific, Known-to-Unknown, Part-to-Whole, Part-to-Whole-to Part, Spiral, Step-by-Step, Topical, Unknown-to-Known, Whole-to-Part

Part-to-Whole

An instructional approach in which objectives are presented to learners beginning with parts of the curriculum, then relationships between the parts are presented, and finally learners can incorporate the parts as a whole.. Compare to: Chronological, General-to-Specific, Known-to-Unknown, Part-to-Part-to-Part, Part-to-Whole-to Part, Spiral, Step-by-Step, Topical, Unknown-to-Known, Whole-to-Part

Part-to-Whole-to-Part

An instructional approach (often used in reading) in which objectives are presented to learners in chronological order. Compare to: Chronological, General-to-Specific, Known-to-Unknown, Part-to-Part-to-Part, Part-to-Whole, Spiral, Step-by-Step, Topical, Unknown-to-Known, Whole-to-Part

Partner Discussion

Any discussion involving exactly two people. This is a flexible strategy that allows the maximum number of students to verbally express their ideas at the same time. Typically, partner discussions are prompted by a single question, but longer partner discussions can occur if the partners are assigned a larger project.

Partner Reading

Pairs of students read together and the listener corrects the active reader. One special form of partner reading is called "Reading Buddies." Reading buddies are pairs whose members are several years apart.

Pattern Forming

The ability to recognize and create patterns is central to many different fields. The use of lessons with "pattern forming" activities is typically started in pre-schools and continues into higher education.

    Bear Mini-Unit, Lesson 4: Patterning with Bears

PBL (Problem-Based Learning)

Inductive teaching method. No direct instruction. Teacher poses authentic (real-world) problem. Students learn particular content and skills as they work cooperatively to solve the problem.

    Problem-based Learning

Peer Assisted Learning Strategies (PALS)

A structured reading strategy in which pairs of students use "Paragraph Shrinking," "Partner Reading," and "Prediction Relays."

    PALS- Peer Assisted Learning Strategies

Peer Editing

Students read and give feedback on the work of their peers. Peer editing is not only useful as a tool to improve students' analytical skills, but also provides students with an alternative audience for their work.

    Peer Editing

Peer Evaluation

Students evaluate presentations or work of fellow students.

Peer Questioning

Students ask questions of each other. Often occurs during student presentations.

    Guided Reciprocal Peer Questioning

Peer Tutoring

Includes a wide variety of approaches in which instruction is delivered by a person close in age or achievement to the person receiving instruction.

Peer and Cross-Age Tutoring

Peg Word System of Memorization

Uses visualization to remember words associated with particular numbers.

Penpals

A long term arrangement to exchange letters with another individual. Used in classrooms to improve literacy, encourage exploration of ideas from other cultures, and sometimes to learn new languages.

KeyPals Club International

Performance Assessments

Performance assessments involve the comparison of a learner's behavior to an established guideline or rubric. The guidelines can be a single condition - or complicated multi-page rubrics with carefully described levels of performance for each action or behavior.

Performance Assessment - NCREL

Creating Meaningful Performance Assessments. ERIC Digest E531.

Performance of Skills

Skills might include touch typing, use of scientific equipment, drawing, etc.

Perspectives

Students might be asked to analyze perspectives, or take another perspective.

Phenomena maps

A structure to help students understand events and their interactions.

1 The Makes Sense Strategies Model Edwin Ellis (PDF)

Phillips 66

Divide students into groups of six and give them six minutes to perform some task. Tasks may range from simple discussion to the solving of complex problems.

Phonemic Awareness

Most young children perceive words as whole, indivisible entities. As children develop, they acquire the understanding that words are made up of smaller units called syllables, and eventually that syllables are composed of even smaller units called phonemes. Once children are aware of the nature of words and phonemes and how to break words apart into those corresponding sounds, they are usually ready to learn to read. Until they have reached this step, it is difficult for children to make the connection between the written letters of the alphabet and spoken sounds.

Phonemic Awareness: An Important Early Step in Learning To Read

Phonics

Reading and writing instruction that formally associates sounds with letters of the alphabet. Beginning readers are urged to "sound out" a word by saying the sound of each letter in an unfamiliar word, then blending individual sounds to deduce the written word.

Phonics

Pictorial Autobiography

Students create collages representing their interests, background, or culture. Students can either share them and explain them to the class, or post them anonymously to allow students to try to guess which collage belongs to which student.

Picture Mapping

A form of graphic organizer similar to story mapping. Instead of diagraming using keywords, however, the concepts are illustrated with pictures.

Picture Word Inductive Model (PWIM)

Inductive, inquiry-based vocabulary-building strategy that presents new words in conjunction with photographs.

PLAN

A writing strategy by Edwin S. Ellis consisting of the following components: Preview audience, goals, & words. List main ideas & details. Assign numbers to indicate order. Note ideas in complete sentences.

PLAN (Predict/Locate/Add/Note)

A reading/study skills strategy.

> PLAN - Predict/Locate/Add/Note
> Reading Strategies

Planning

Activities in which students plan some or all of the activity encourage engagement by students and help to develop metacognitive skills. Planning a hypothetical activity (like a trip to Jupiter) helps students make connections between theoretical concepts and their daily lives.

Plays

Planning and performing plays in the classroom can improve reading and performance skills and help to motivate learners who benefit from social interactions and the hands-on aspects of drama.

> Plays : The drama magazine for young people
> All the Classroom's a Stage!
> Reader's Theatre Scripts of the Month

Plus, Minus, Interesting (PMI)

A decision-making strategy devised by Edward de Bono. Students silently list positive, negative, and other aspects of a problem or solution. Aspects are shared as a group list. All alternatives are considered before decision is made.

> PMI: Plus-Minus-Interesting

PMI (Plus, Minus, Interesting)

A decision-making strategy devised by Edward de Bono. Students silently list positive, negative, and other aspects of a problem or solution. Aspects are shared as a group list. All alternatives are considered before decision is made.

> PMI: Plus-Minus-Interesting

Poetry Writing

Because poetry encourages students to express ideas in imaginative, highly connected ways, writing poetry can be used in many kinds of classrooms.

> April Is Poetry Month!
> Online Poetry Classroom
> Poetry for the Elementary Classroom
> Ideas for Writing Poetry in the Classroom

Point Counterpoint

Presentations of arguments for, then against a particular proposal. Point-Counterpoint formats would encompass essays written by a single person, all the way up to full class debates with teams taking varying opposing viewpoints. This approach is often used in the exploration of controversial topics.

> Point Counterpoint--A Method for Teaching Critical Thinking

Point, Illustrations, Explanation (P-I-E)

A writing strategy to remind students about the key parts of a paragraph. As a cue, you can ask them if their paragraph has all the pieces of the P-I-E (Point-Illustrations-Explanation).

Pop Quiz

Assessment given without notice. Usually written, and used to motivate students to study each day.

PORPE (Predict, Organize, Rehearse, Practice, and Evaluate)

A strategy to help students prepare for exams by having them predict the questions on the exam.

Portfolio

Portfolios are carefully selected samples of student work accompanied by formal criteria to allow the reader to judge the materials in the portfolio.. Portfolios typically include work selected by the student to show their best work, some pieces to show progress, and other work that reflects on what was learned and what remains to be learned.

Portfolios - NCREL
Guidelines for Portfolio Assessment

Position Paper

A form of writing in which students take a position, then use information from one or more written materials to support that position.

Position Papers for Psychology 3VV3
Guidelines for Critique or osition Paper

Positive Profile

Students analyze characters from reading by completing a personality evaluation form that includes positive characteristics such as "hobbies," "strengths," and "smartest action performed."

Positive Profile

Possible Sentences

A pre-reading strategy in which students are presented with vocabulary words from the reading. Students choose pairs of vocabulary words and use these two words to write sentences that may appear in the reading. After the reading students evaluate the correctness of their sentences, and sometimes correct them.

Possible Sentences
Possible Sentences

Posters

Student-created posters can be used at any stage of instruction. During early exposure to concepts, students can create "mini-posters" providing an visual overview of what they already know of a topic. Later in instruction, assigning a poster format encourages students to organize and prioritize materials. Group posters encourage negotiating and team skills as students debate how best to illustrate concepts. Posters can also be combined with other forms such as oral presentations and visually enhanced essays. Commercially made posters are useful as quick reference and to augment lectures or discussions.

Posttests

Practice

In learning cognitive skills, repeated exposure to concepts through practice increases the probability the student will remember the concept. In learning physical skills, practice not only teaches basic skills but also conditions the body to be better able to perform the motions associated with those skills.

Distributed Practice: The Research Base (PDF)
PRACTICE SESSIONS

Praise

Verbal or written expressions of approval used by teachers to motivate students. While praise has historically been viewed as an effective means to reinforce learning, recent research indicates positive effects are seen only with certain types of praise and when used with certain types of students.

The Power of Written Praise

Instructional Reinforcement

Precis Writing

A form of abstraction or summary.

Precis Writing

The Precis (or Summary) by Angela Abbott

Precision Teaching

A method of planning and delivering instruction based on a student's own measurement of their frequency in performing (or not performing) certain observable actions.

General Introduction of Precision Teaching to Secondary Students

Precision Teaching: Concept Definition and Guiding Principles

Predict / Check / Connect

A reading strategy by Edwin S. Ellis encouraging predictions based on the beginning of a text.

Predict, Organize, Rehearse, Practice, and Evaluate (PORPE)

A strategy to help students prepare for exams by having them predict the questions on the exam.

Predict/Locate/Add/Note (PLAN)

A reading/study skills strategy.

PLAN - Predict/Locate/Add/Note

Reading Strategies

Predictable Books

The use of books with predictable plot elements or other uses of repetition and pattern to enhance student engagement and encourage students to make predictions.

Predictable Books

Prediction Pairs

Students are paired as they listen to the teacher read a passage aloud. At each pause in the reading, the teacher prompts students to discuss with their partner what they predict will happen next in the reading.

Prediction Relay

Extension of Paragraph Shrinking which partners are asked to think ahead.

Predictions

Students make predictions to indicate extended understanding of concepts.

Preinstructional Activities

PReP (Prereading Plan)

Brainstorming to activate students' existing knowledge before reading.

Prepare-Present-Process

Prepare-Present-Process

Prepcreation

Creativity activity: list of prepositions (above, in, because, opposite) is interposed between two lists of words,

then try to make sense of the combinations. Used to generate novel solutions to problems.

       [Prepcreation](#)

Prereading Plan (PReP)

    Brainstorming to activate students' existing knowledge before reading.

Prescriptive Learning

Presentations

Pretests

Prewriting Activities

Problem Reversal

    Solve problems by reversing problem and determining what not to do.

       [Problem Reversal](#)

Problem Vignettes

Problem-Based Learning (PBL)

    Inductive teaching method. No direct instruction. Teacher poses authentic (real-world) problem. Students learn particular content and skills as they work cooperatively to solve the problem.

       [Problem-based Learning](#)

Problem-Solving

    A Meaningful Use Task which centers on overcoming constraints or limiting conditions.

       [Polya's "How to Solve It"](#)

Problem-Solving Groups

Problems

    Students can interact with problems in many ways. Students may be asked to create or construct problems, they may be asked to set up how to solve problems (without actually completing the calculations necessary to solve them), and finally they may be asked to solve problems.

Process of Elimination

Process Writing

    Students write following a model specified by the instructor. Emphasis shifts from the nature of the final product, to the process used to create the final product.

Profile

Project

Proofreading

Proofs

PROP Advance Organizer

    A structured format to give students an overview of what to expect from upcoming instruction. Using a completed form, the teacher describes for students: Prior knowledge, Relationships, Organization, Plan

       [PROP advance organizer - example](#) (PDF)

Proposal Writing

Pros and Cons

Students generate lists of arguments for or against certain ideas. These can either be actions proposed by a class, or a listing of arguments for and against ideas of historical or scientific interest.

Listing Pros and Cons

Proverbs

Proverbs: Wisdom Tales Without the Plot

Provocation

Similar to the "Devil's Advocate" technique but in this approach the teacher makes statements that are obviously "stupid" in order to provoke students to generate statements or situations in which the statement makes sense. For example, "Food should be free." can lead students into a discussion of different economic and social structures.

Provocation

Psychomotor Skill

Public Performances

Publish

Encouraging students to submit their writing or creations to real-world publishers, or to publish their work themselves using desktop publishing techniques.

Punishment

Puppet

Puppets are useful for role play and presentations.

Puzzles

PWIM (Picture Word Inductive Model)

Inductive, inquiry-based vocabulary-building strategy that presents new words in conjunction with photographs.

Pyramid Strategy

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Q and A (Questions and Answers)

QAR (Question-Answer Relationship)

Exploration of the nature of answers. Are answers explicit or implicit in the reading, or are they internal to the reader?

Question-Answer Relationships (QAR) Strategy

Question / Check / Connect

A strategy by Edwin S. Ellis for learning more about reading by asking questions about the graphics associated with the text.

Question-Answer Relationship (QAR)

Exploration of the nature of answers. Are answers explicit or implicit in the reading, or are they internal to the

reader?

Questionnaires

Questions

Have students apply "who, what, when, where, why, how" to all problems. Or ask students to generate questions.

Questions and Answers (Q and A)

Questions Into Paragraphs (QuIP)

A reading and writing strategy by Elaine McLauglin in which students are taught how to use questions to research answers from multiple texts and incorporate them into a coherent paragraph.

Quick Drafting

Quickdraw

Pair activity in which students have a short period (typically 30 seconds) to share all they know by writing with symbols or drawings.

Quicktalk

Pair activity in which students have exactly 30 seconds to share all they know.

Quickwrite

Pair activity in which students have a short period (typically 30 seconds) to share all they know by writing in a graphic organizer.

Quintilian Progression

Model to guide assessment of writing in progress. 1st product: freely generated ideas and words. 2nd: student decides on organizational form of paper. 3rd (first written draft): student should aim for clarity. 4th: revise for correctness. 5th: revise for eloquence.

QuIP (Questions Into Paragraphs)

A reading and writing strategy by Elaine McLauglin in which students are taught how to use questions to research answers from multiple texts and incorporate them into a coherent paragraph.

Quotations

RAFT (Role/Audience/Format/Topic)

Post-reading activity in which students demonstrate understanding by writing for a specific audience.

Rally Robin

Random Word Method

A creativity technique.

Randomized Questioning

In situations where the teacher wants to ensure that all students have an opportunity to answer questions, the teacher creates note cards with the students' names on them, then shuffles the cards. AFTER asking each question, the teacher reveals the name of the student chosen at random to answer the question.

Raps

Songs written and presented by students.

Rating

Re-Enactments

Reaching Consensus

Reaching Consensus

Reaction Papers

Read Aloud

Teacher reads aloud to the class to improve comprehension, expose students to correct pronunciation, or to create positive feelings about reading or a particular book.

Read and Respond

Read and Respond

Reader's Theater

Students adapt some of their reading to present to other students in the form of a play. These productions can be simple or elaborate and include posters, programs, sets, and costumes.

Reading

Reading Comprehension

Reading for Information

A type of reading in which learners interact with text to collect information, or to improve their understanding of specific topics.

Reading Roadmap

Map to guide students in their reading. Shows when to skim, when to read carefully, questions to consider.

Reading the Room

Reading and Writing the Room

Ready-Set-Recall

Ready, Set, Recall

Real-World Problems

Reality-Based Model

Developed by Glasser as a counseling technique. Useful in teaching students to manage their own behavior by helping them discover what they really in a situation, and socially acceptable ways of getting what they want.

Rebuttals

Recall, Summarize, Question, Comment, and Connect (RSQC2)

A summarization technique in which students Recall (list) key points, Summarize in a single sentence, ask

unanswered questions, Connect the material to the goals of the course, and write an evaluative Comment.

Recalling

Reciprocal Teaching

Students take turns being the teacher for a pair or small group. Teacher role may be to clarify, ask questions, ask for predictions, etc.

Reciprocal Teaching - NCREL

Recitation

Questions and answer session dominated by the teacher. Questions usually have a single correct answer.

Redundancy

To be learned, concepts need to be revisited many times and in a variety of contexts. Younger children may need to work with a concept twenty or more times to fully understand it, while older students and adults typically need to see and use a concept three or more times to be able to remember and properly use it.

Reflection

A metacognitive activity. Learner pauses to think about, and organize information gathered from reading, discussions, or other activities.

Reflection Logs

Reflective Discussion

Rehearsals

Reinforcement

Rejoiners

RELATE Table

A graphic organizer to help students connect what they learn in the classroom to real world events or issues.

Making Real-World Connections When Teaching Major Concepts in Inclusive Classrooms

Relay Summary

Team activity to summarize reading. One team member writes one sentences summarizing reading then passes page to teammate. Continues until everyone in team has added at least one sentence.

Reports

Report Writing

ReQuest

Teacher and students take turns asking each other questions about reading.

Research Papers

Research Project

Resiliency Training

Restating

Retelling Stories

Storytellers on Tour

Review

Revising

Students can learn by revising their own work, or by revising the work of others.

Rewrite the Ending

Rhymes

Riddles

Role-Playing

Role/Audience/Format/Topic (RAFT)

Post-reading activity in which students demonstrate understanding by writing for a specific audience.

RAFT - Role/Audience/Format/Topic

RAFT: Role, Audience, Format, Topic

Room Display

Roots

Word root activities to build vocabulary.

Round Robin

Round-Table Discussion

At a table, 4 or 5 participants informally discuss topic among themselves and with the audience.

Roundtable

Turn-based brainstorming technique.

Roundtable

Routines

One way to maximize teaching time, shorten delays due to transitions, and focus student behavior is to establish routines on the first day. Points to discuss include procedures for turning in work. what is expected during the first minutes of class, and what materials are needed each day.

RSQC2 (Recall, Summarize, Question, Comment, and Connect)

A summarization technique in which students Recall (list) key points, Summarize in a single sentence, ask unanswered questions, Connect the material to the goals of the course, and write an evaluative Comment.

Rubrics

Storytelling Rubrics

Rule-Making

Establishing Classroom Rules

Classroom Rules That Rock

S.W.O.T. Analysis (SWOT)

Analysis of Strengths, Weaknesses, Opportunities, and Threats (SWOT) in a situation.

SWOT Analysis: Strengths, Weaknesses, Opportunities, Threats

Sample Tests

Sampling

Scaffolding
Providing temporary support until help is no longer needed. Can take many forms (examples, explanations, organizers, etc.) but needs to build on student's existing knowledge.

Scale Drawings
        [Architects in Action (lesson plan)](#)

Scale Models
        [Architects in Action (lesson plan)](#)

SCAMPER
Creativity technique by that uses the SCAMPER acronym to help students remember to try many variations on an idea. SCAMPER = Substitute, Combine, Adapt, (Modify, Magnify, Minify), Put to other use, Eliminate, (Reverse, Rearrange).
        [SCAMPER](#)

Scanning
Reading or looking at material quickly to gain an overview of the content.

Schematic Drawings

School to Work
        [School to Work Transition](#)

Science Kits
        [Using Science Kits to Construct Content Understandings in Elementary Schools](#) (PDF)

SCOPE (Spelling, Capitalization, Order of words, Punctuation, Express complete thoughts)
A proofreading strategy.

Scored Discussions
        [Scored Discussion](#)

Scoring

Script
Student-generated scripts and screenplays.

Script Theory
A theory about the structure of knowledge by Roger Schank. The core idea is that knowledge is stored as a series of scripts that we have composed based on our prior experiences. When some new event occurs, we try to fit the new information into our existing scripts. This reliance on existing mental frameworks makes script theory very similar to constructivism. Unlike constructivism, script theory is more concerned with discovering specific underlying shared scripts and formally recording them. Script theory is often applied to language learning and the design of educational software.
        [Script theory (R. Schank)](#)

Scripted Cooperative Dyads
Pairs both read complex material, then alternate in roles of recaller (who summarizes and explains what was read) and listener (who listens, then corrects or adds to what was said by recaller).

Sculptures

A group problem-solving technique in which members add to three-dimensional models that depict either the problem itself or a potential solution to the problem. In the general sense, any three-dimensional figure or design.

Sculptures

SEARCH

A writing strategy by Edwin S. Ellis consisting of the following steps: Set goals. Examine your paper to see if it makes sense. Ask if you said what you wanted to say. Reveal picky errors. Copy over neatly. Have a last look for errors.

Seating Chart

Seatwork

Individual work by students as they work at their desks. May include reading, worksheets, writing , research, etc.

Selecting

Self-Assessments

Students reflect on their performance and assess themselves.

Self-Assessment In Portfolios - NCREL

Self-Correction

Students correct themselves during reading, speaking, or performing skills.

Self-Paced Learning

Self-Regulated Writing Strategy

Self-Selected Reading

Students select the materials to read. Improves motivation because students can select materials of interest to them.

Semantic Associations

Making connections between words based on meaning and context.

Semantic Feature Analysis

Chart or grid where students explore their existing knowledge about relations between concepts.

Semantic Feature Analysis

Semantic Map

Semantic Word Map

Semantic Word Map

Send-a-Problem

Send-A-Problem

Senses

Students can make more complete connections to concepts if all of their senses are stimulated.

Sequence Chains

Sequence Chain (graphic organizer)

Sequencing

    Creating sequences from clues. Also a writing strategy and a team activity.

Service Learning

        Learn & Serve America

Set

    Any activity at the beginning of a lesson whose function is to motivate students to participate in the learning to come and redirect the students' attention to the general objectives to be learned.. An effective set may be as simple as asking a question, or as complicated as a ten minute hands-on activity.

Set Breaking

Shadowing

    The student follows a professional for several hours or a whole day to learn more about the work done by, and skills needed by that person. Often used in teacher education programs or apprenticeships.

Share-Pair Circles

    Divide class into two equal groups and each group forms a circle. The inner circle faces outward and the outer circle faces inward, to form pairs of facing students. In response to teacher questions, each pair discusses their ideas, then one of the circles rotates to create new pairs. Repeat until the original pairs are again facing each other.

Share/Check Work/Review/Discuss

Shared Inquiry

Shared Reading

    A teaching strategy employing oversized picture books from which the teacher reads aloud to a group of children.

        Shared Reading: An Effective Instructional Model

Shared Stories

    Students and teachers share personal stories to explore their shared and divergent values, cultures, and backgrounds.

Shared Writing

    Each student contributes one or two sentences to a story written by the whole class.

Show and Tell

    Students bring in personal objects to share with the class.

Showdown

Signals

    Includes verbal and non-verbal communications between teachers and students.

Silent Reading

Similarities and Differences

    A form of comparison in which students first list all the similarities they can find between the two objects or concepts being compared, then they list all the differences.

        Similarities and Differences

Similarity Groups

Simplex

The Basadur Simplex approach to problem-solving. Basically a formal approach in which problems are defined, ideas proposed and evaluated, actions initiated, then a return to the problem-finding stage to refine the solution.

Simplex

Simulations

Situated Learning

An educational theory by Jean Lave proposing that learning normally occurs in a specific context (i.e. with certain people or while performing certain tasks). Learning, then involves both social interactions and interactions with the real-life materials and places where the knowledge would be applied. Variations of situated learning would include apprenticeships and cognitive apprenticeships.

Situated Learning

Situational Role Play

Six Thinking Hats

A metacognitive strategy that encourages people to look at concepts from different perspectives. Each hat represents a mode of thinking. The white hat = look at data, red = feelings, black = judgment, yellow = positive attitude, green = creativity, blue = overview.

Six Hat Thinking
Six Thinking Hats

Skill

The use or demonstration of skills by the student.

Skill Inventory

There are two basic formats for a skill inventory. Individuals may either generate their own list of skills, or individuals may "check off" skills they possess from a list of skills. Used as a self-assessment in many fields but most often used as part of career exploration or professional development.

Skimming

Reading or looking at material quickly to gain an overview of the content.

Skits

SLANT

Teaching strategy to encourage students to participate in discussions. Sit up. Lean forward. Activate your thinking. Note important information. Track the talker.

Slide Show

A form of presentation by students. Slides can be a series of drawings, or can be generated and presented using software like PowerPoint.

Slides

Slip Writing

Individual brainstorming on paper followed by sharing of the written ideas in small groups.

Small-Group Instruction

SMART Objectives

Snack

Snowball
> Any of several techniques that involve grouping ideas that are written on small slips of paper.
>> Snowball Technique

SOAPSS
> A method to encourage consideration of the context in which a particular piece of writing was created: Subject, Occasion, Audience, Purpose, Speaker, and Style.

Social Development Theory
> Based on Lev Vygotsky's philosophy that learning occurs through social interactions. Emphasizes the importance of cooperative learning groups, motivation, observation of models, and student attitudes.
>> Vygotsky and Social Cognition
>> Social Development Theory

Social Learning Models
> Albert Bandura's theory of learning through modeling observed behaviors.
>> Cooperative Learning - Huitt
>> Social Learning Theory

Social Science Inquiry
>> Social Science Inquiry

Sociodrama
> Portrayal of town meetings or sessions of congress (for example).

Socratic Dialogue

Socratic Method
> Rather than "telling," teacher leads students to concept through a series of ordered questions.
>> The Socratic Approach to Character Education - Elkind and Sweet
>> The Socratic Method: Teaching by Asking Instead of by Telling

Socratic Questioning

Somebody Wanted But So
> After reading activity that uses a graphical organizer to help students evaluate character ("somebody"), motivation ("wanted"), conflict ("but"), and resolution ("so").
>> Somebody Wanted But So

Songs
>> Using Songs in the Classroom
>> Songs for Teaching - Using Music to Promote Learning

Sort Cards
> Words and images associated with topic are put on individual cards. Groups sort cards into categories and label and discuss categories.

Sorting

Sound Burglar

Spear's Model

Speeches

Spelling Notebook
>A student-generated list of words maintained by the student to remind them of words they need more work on.

Spelling Pictures
>Students copy their spelling words by writing them in a pattern that "traces" a picture.
>>Spelling Pictures

Spelling, Capitalization, Order of words, Punctuation, Express complete thoughts (SCOPE)
>A proofreading strategy.

Spider Map
>A form of graphic organizer to help students see the relationship between details and the main topic.
>>Spider Map

Spiral Sequencing
>An instructional approach in which objectives are presented to learners beginning with simple concepts and then periodically revisiting the concepts and expanding on the concepts as is appropriate for the learner's cognitive level.. Compare to: Chronological, General-to-Specific, Known-to-Unknown, Part-to-Part-to-Part, Part-to-Whole, Part-to-Whole-to Part, Spiral, Step-by-Step, Topical, Unknown-to-Known, Whole-to-Part
>>Constructivist Theory - J. Bruner

Sports
>Participation in, or analysis of sporting events.

Spotlight On
>Similar to "Student of the Week." The work and background of a single student is showcased to the class.

SQ3R (Survey, Question, Read, Recite, Review)
>An approach to studying and reading to improve comprehension and retention.
>>SQRRR: Survey, Question, Read, Recite, Review

STAD (Student Teams-Achievement Divisions)
>Highly structured cooperative learning method following a "Teach, Team study, Test, Team recognition" strategy.

Stance Questions
>Interacting with reading by taking different perspectives.

STaR (Story Telling and Retelling)
>Teachers read stories to students then students retell the story by acting it out, answering questions, or writing about the story.

Starbursting
>Similar to the Lotus Blossom Technique, but after identify topic, ask what questions can be created.

Step-by-Step Sequencing
>An instructional approach in which objectives are presented to learners as a series of steps. Often used to teach procedures. Compare to: Chronological, General-to-Specific, Known-to-Unknown, Part-to-Part-to-Part, Part-to-Whole, Part-to-Whole-to Part, Spiral, Topical, Unknown-to-Known, Whole-to-Part

Sticking Dots

A method that allows individuals or groups to vote for their favorites from a list by sticking colored dots next to their choices.

Sticking Dots

Stir the Teams

Students are assigned to teams and each student in the team has a number (typically 1 through 4). Teams discuss their group answer to the teacher's question, then when the team is done they give a signal. When all teams are done, the teacher calls a number (from 1 to 4) and the students with that number rotate to the next group to share their team's answer with their new team. The procedure then repeats through the series of questions.

STOPS

Acronym is useful to help students remember which aspects of their writing they should check when editing.STOPS stands for: Sentence structure, Tenses, Organization, Punctuation, Spelling

Story Activities

Story Frame

A guided reading tool that gives prompts to elicit information about the sequence of events that occur during a story.

Story Impressions

The teacher presents ten to fifteen terms to students prior to reading. These terms appear in the same order that they appear in the reading. Students write a passage using the terms that they think predicts what will happen in the reading. Students share their predictions with others. Finally, students read, comparing their predictions (story impressions) with the reading.

Story Impressions

Story Maps

Example Story Map

Story Method for Memorization

Each word to be memorized is included in a story made up by the student.

Story Related Reading

The exploration of texts related to the primary text. These activities, often cooperative, typically include reading related texts or stories, then making comparisons to the original story through writing or discussions.

Story Retell

Story Starters

Printable Story Starters (Elementary)
Story Starters

Story Structure Review

Students are asked to recall key features of a story using a blank story map.

Story Telling

Story Telling and Retelling (STaR)

Teachers read stories to students then students retell the story by acting it out, answering questions, or writing about the story.

Storyboarding

Streaming Media

Structured Controversy
>
> Students (in groups of four) "argue" about controversial topic using research to support their assigned viewpoint. Groups reach and present consensus.

Structured Note-Taking
>
> Structured Note-taking

Structured Problem-solving
>
> Structured Problem-solving

Student Expectations
>
> Often used as a first day activity, teachers can directly ask students what their expectations are for the class. Later in the course, students understanding can be assessed by eliciting information about student expectations for the upcoming topic.

Student Helpers

Student of the Week

Student Response Groups
>
> Small groups of students who provide peer evaluation of the work of the other students in the group. Useful for writing or other creative projects because it gives the author an audience to experiment with before submitting work to a larger audience or for evaluation.

Student Teams-Achievement Divisions (STAD)
>
> Highly structured cooperative learning method following a "Teach, Team study, Test, Team recognition" strategy.

Study Aids
>
> The teacher provides students with carefully constructed tools to assist students in learning for specific structures or environments. For example, the teacher may distribute a "Guide to Using the Library" before taking students to the library to do research. Before a multiple choice test, the teacher may provide test-taking tips or tips on how to study for the upcoming test.

Study Groups

Study Guides

Study Skills

Stump the Teacher
>
> Game where students make up questions based on a reading assignment. The teacher gets a point if he or she can answer the question, and the students get a point if the teacher fails to answer the question.
>
> Stump the Teacher

Subsumption Theory
>
> David Ausubel's subsumption theory describes the importance of relating new ideas to a students existing knowledge base BEFORE the new material is presented. This theory is applied in the "advance organizer" strategy developed by Ausubel.
>
> Subsumption Theory

Success For All

    [Success for All Foundation](#)

Suchman Inquiry

Like twenty questions. Teacher poses problem then helps students solve problem by answering "yes" or "no" to student questions.

Suggestion Box

Useful for collecting any form of anonymous feedback. Student opinions can be regularly collected as part of class activities, or the box could be used in the classroom as an informal method for students to make comments about activities in the classroom. Often most effective when paired with the Admit Slip/Exit Slip approach.

Summaries

Summative Assessment

    [Formative and Summative Assessments in the Classroom](#)

Summative Evaluation

Super Heroes

Problem-solving technique in which students take on the roles of their favorite super heroes, then answer questions from the point of view of that character. For instance, if the class was discussing the problem of how to deal with water pollution from pesticide run-off, a student from the "Spiderman" perspective might propose that she could use her webs to capture insect pests on farms so farmers would not need to spray pesticides. In the same discussion, a student from the perspective of "The Flash" might propose that he could run through the fields at super speed, pick off all the insects, and take them to a place where they would not bother farmers.

    [Super heroes](#)

Supervised Practice

Survey, Question, Read, Recite, Review (SQ3R)

An approach to studying and reading to improve comprehension and retention.

    [SQRRR: Survey, Question, Read, Recite, Review](#)

Surveys

Sustained Silent Reading

    [Using Sustained Silent Reading](#)

SWOT (S.W.O.T. Analysis)

Analysis of Strengths, Weaknesses, Opportunities, and Threats (SWOT) in a situation.

    [SWOT Analysis: Strengths, Weaknesses, Opportunities, Threats](#)

Syllabus

Create and distribute a syllabus (overview of the course) to students and parents at the beginning of the course. Provides students with valuable information about the upcoming concepts they will be learning along with behaviors and routines to expect.

Symposium

Participants formally present material then respond to questions from the audience.

Synchronous Learning

Synectics

Metaphors generated by the students are used to help them understand controversial issues or solve problems.
Synectics

Syntax

The use of the structure of language, or knowledge about the structure of language to solve problems or understand text.

Synthesizing

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

TAI (Team Assisted Individualization)

Combines individualized instruction with team rewards for meeting goals.
TEACHING MODELS BASED ON A COGNITIVE LEARNING APPROACH STUDENT CENTRED

Talking Chips

Response management technique to encourage students who do not often contribute, and limit students who contribute too much to discussions.

TAPPS (Thinking Aloud Pair Problem Solving)

Task Cards

Specific instructions or guides for student use at learning centers. May be an assignment, or how to practice skills.

Taxonomies

Teacher Errors

Establish reward system for finding and correcting errors made by the teacher.

Teacher Expectations

A clear, written explanation of the teacher's expectations. This should describe desirable behavior, rules, and the steps needed to get a good grade in a course. For older students, this is often included in a syllabus handed out the first day. For younger students, this is part of the packet of information sent home to be read by the parents. As the course progresses, more detailed expectations can be revealed to the students to describe what is necessary to be successful on particular tasks.

Teacher's Background

Teachers are real people with families, hobbies, and former occupations. By sharing information about themselves with students, teachers establish themselves as both accessible and credible as a teacher.

Team Assisted Individualization (TAI)

Combines individualized instruction with team rewards for meeting goals.
TEACHING MODELS BASED ON A COGNITIVE LEARNING APPROACH STUDENT CENTRED

Team Consensus

When a group response is desired, present methods to assist groups in creating responses that are satisfactory to all members of the group.

Team Product

    Students work in teams to accomplish a task (either learning, or creating a physical product).

Team Reading

Team Teaching

Team Word Web

Teammates Consult

    Team-based discussion-summary technique.

Teams-Games-Tournaments (TGT)

        [TGT: Teams, Games, Tournaments](#)

Telephone

    One student is chosen to leave the room while the teacher teaches a short lesson to the rest of the class. The absent student returns and is taught the lesson by the students. The student who was absent is given a (typically non-graded) quiz. Results of the quiz are used for reteaching.

Television

    Educational television programming is used in the classroom.

Tell and Retell

Telling

Ten Plus Two (10 + 2)

    Direct instruction variation where the teacher presents for ten minutes, students share and reflect for two minutes, then the cycle repeats.

Terminal Objective

Test

    Many variants, including paper and pencil, student generated, and take home.

Text Frame

    Models which show the format of material as presented in texts. Helps show the relationships between concepts. (ex. C=cause, E=effect) (cycle) C C-E-C-E (chain) E E C

        [Text Structure](#)

TGT (Teams-Games-Tournaments)

        [TGT: Teams, Games, Tournaments](#)

The Last Word

    Summary technique. Each letter in topic name is used to remember key ideas in topic. (example: snow, Six-sided ice crystals. Near center is dust particle One snowflake is usually made of more than one crystal. Water vapor freezes to form.)

Thelen's Group Investigation

    Groups explore socially significant problems.

Thematic Units

        [Thematic Instruction](#)

Theme Song

Things in Common Sheet (TIC Sheet)
   Team building activity where groups explore the foods, places, activities, TV, and movies they all like and all dislike.

Think Along

Think Ink Pair Share
   Like Think-Pair-Share but with writing component.
      Think-Ink-Pair-Share

Think Pad Brainstorm

Think Sheets

Think-Aloud
   Teacher describes own thoughts while reading aloud to class.
      Using a Think Aloud in the Classroom

Think-Pair-Share
   Students think individually, then pair (discuss with partner), then share ideas with class.
      Think/Pair/Share

Thinking Aloud Pair Problem Solving (TAPPS)

Thread (Discussion Board)

Threaded Discussion

Three Minute Pause
   After or during instruction, ask students to pause and reflect on what was learned for three minutes. Students might work individually, in pairs, or in small groups to build summary.

Three Step Interview
   Groups of four (a, b, c, d). Teacher assigns question. Step 1: a interviews b, c interviews d. Step 2: b interviews a, d interviews c. Step 3: All in group share what they've learned in their interviews.
      Three Step Interview (PDF)
      Three-step Interview

Three-Two-One (3-2-1)
   Writing activity where students write: 3 key terms from what they have just learned, 2 ideas they would like to learn more about, and 1 concept or skill they think they have mastered.

TIC Sheet (Things in Common Sheet)
   Team building activity where groups explore the foods, places, activities, TV, and movies they all like and all dislike.

Ticket to Leave
   Closing activity where students respond in writing or verbally to short assignment.

Timed Drill

Timed-Pair-Share

Timelines

Topical Sequencing

An instructional approach in which objectives are presented to learners beginning with issues currently of interest, then tracing back the history of the development of that issue. Compare to: Chronological, General-to-Specific, Known-to-Unknown, Part-to-Part-to-Part, Part-to-Whole, Part-to-Whole-to Part, Spiral, Step-by-Step, Unknown-to-Known, Whole-to-Part

Toss a Question

Tough's Model

Tournaments

Traditions

Sharing or explaining family traditions.
Collecting Family Stories

Transformation of Text

Supply students with a text and ask them to transform it from its original genre to a different genre.For example, supply prose and ask students to create a poem with the same essential ideas.

Transformative Learning

Translating

Transparencies

Transparencies are clear sheets of plastic on which both text and graphics may be copied. Transparencies may be used during direct instruction as a guide to the teacher, to allow them to eliminate using separate lecture notes, and also as a means to quickly show many graphics. Other uses of transparencies include: presentation of quizzes, problems of the day, jokes, cartoons, and to present problems that can then be turned over to students to complete for the class.

Turn to Your Partner

Teacher gives directions to students. Students formulate individual response, then turn to a partner to share their answers. Teacher calls on several random pairs to share their answers with the class.

Tutoring

One-on-one approach to teaching or reteaching concepts. May be done by teachers, peers (other students) or professional tutors.

Twenty Questions

Two Dimensional Matrix

A group activity in which students make associates between two lists of words.

Uncommon Commonalities

Uncommon Commonalities

Unconscious Problem-Solving

Study problem until understand well, then take a break and relax to let unconscious mind work on problem.

Unknown Objects
> Bring an object to class that students are unlikely to recognize. Can be used as writing or discussion prompts, as subjects for an investigation, or even in an art class. Useful for encouraging students to ask questions.

Unknown-to-Known
> An instructional approach in which objectives are presented to learners beginning with unknown concepts and proceeding to known concepts. Used as a motivational technique to induce students to want to know more. Compare to: Chronological, General-to-Specific, Known-to-Unknown, Part-to-Part-to-Part, Part-to-Whole, Part-to-Whole-to Part, Spiral, Step-by-Step, Topical, Whole-to-Part

Unsent Letter

Using
> Using objects or concepts to show skills or valuing.

Value Clarification Discussion
> Discussion during which questions are open-ended and with no one right answer. Used to develop values.

Value Line
> Group members position themselves along a labeled line to reveal their opinions on particular topics, then group organizers assign members to heterogeneous groups based on those opinions.
> > Value Line

Venn Diagram
> A form of graphic organizer. Commonly used in mathematics and comparisons.
> > Venn Diagram Basic

Videotapes
> Commercially produced tapes for educational purposes.

Videotaping
> Students produce videotapes then review their presentations. Useful in improving metacognitive and communication skills.

Virtual Communities

Visual Aids
> Any graphical aids used in presentations or to clarify or improve writing.

Visual Memory
> Display picture for a second or two, then ask students to describe as much as they can remember from what they saw.

Vocabulary List

Vocabulary Overview Guide

Vocabulary Self collection Strategy (VSS)
> As a class, students nominate words they'd like to learn more about.

Volunteer

Students as volunteers at a hospital, day care center, the zoo, etc.

Voting

Voting Cards

Students can be given laminated cards at the beginning of the year to be used to express their opinions in class. When they agree with a statement, they might hold up a green card, disagreement could be signified with a red card, and yellow could be used to show indecision or uncertainty.

VSS (Vocabulary Self collection Strategy)

As a class, students nominate words they'd like to learn more about.

Wait Time

How long a teacher waits after asking a question can influence the quality of responses provided by students. Increased "wait time" also leads to increased confidence in students and improvements in classroom discipline.

Walking Tour

Passages from reading are posted on individual pages around the room. Groups tour the room and discuss each passage, then summarize.

Want Ads

Students write want ads. Varieties include "historical," "humorous," and as a famous character.

Web

Webbing in writing.

Web Page

Writing and design of web pages.

Web Searches

Webinar

Weblogs

Blogs, also known as weblogs, are online journals that can be used by the teacher as a means of sharing thoughts, assignments, or resources; or blogs can be created by students for the purpose of reflection, intergroup communication, or to fulfill particular assignments.

Using Blogs to Integrate Technology in the Classroom
Blogging Basics: Creating Student Journals on the Web

WebQuests

The Web Quest Page

What Is It?

The teacher brings an object to class that is unfamiliar or has some historical significance. Ask students to identify the object or describe how it might have been used.

Where Am I?

Pair activity where partner1 points to a place on a blank map and partner2 selects the location from a list or names the location. Partner1 checks the response with a key. Partners switch roles halfway through the list.

Alternative approach: partner1 describes location (no maps) and partner2 guesses where it is.

Whiteboard (dry-erase)

Whiteboard (electronic)

Who Am I?

Whole Language
A form of holistic learning.
Whole Language

Whole Math
A form of holistic learning.

Whole-to-Part
An instructional approach in which objectives are presented to learners beginning with an overview of the whole model or idea, then proceeding to an analysis of the component parts. Compare to: Chronological, General-to-Specific, Known-to-Unknown, Part-to-Part-to-Part, Part-to-Whole, Part-to-Whole-to Part, Spiral, Step-by-Step, Topical, Unknown-to-Known

Word Associates
Similar to the Concept Attainment strategy, where students are shown a series of examples and non-examples. Students are shown a series of cards in which one of the cards does not "fit." Once the students identify the card that does not fit, they attempt to discover the word or phrase associated with the objects or ideas that do belong together.

Word Bank
List or collection of words for students to choose from.

Word Chain
Game that helps students categorize. Teacher supplies category and a first word, then students supply the next word "in the chain." The chain is formed having the next word start with the ending letter of the previous word. For example: Category = Things found in the kitchen. Words: SinK - KnifE - EggbeateR - RefrigeratoR - and so on.

Word Maps

Word Problems

Word Sort
Students sort the lists of keywords they are given into logical groups.

Word Wall

Wordsplash
Students make predictions about reading based on a collection of key words and the name of the central topic. "Splash" refers to the random arrangement of the key terms around the topic at the start of the activity.

Work Sheets

Working Backwards

Workstations
A learning center with a computer.

Writing

Many varieties, including creative writing, exposition, etc.

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

X marks the spot

Reading strategy in which students flag passages as important (mark with an "X"), interesting (mark with a "!"), or something about which they have a question (mark with a "?").

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Yes, No, Maybe So

Yes, No, Maybe So

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Zoo

Activities centered on local zoos. Might include trips, design activities, or webquests.

ZOOM

An extension to the "In What Ways Might We" approach to creative problem-solving.

ZOOM: A Creativity Game

Keywords:

Teaching strategies, teaching strategy, teaching modes, teaching mode, teaching models, teaching model, teaching methods, teaching method, teaching activities, teaching activity, educational approaches, educational approach, instructional strategies, instructional strategy, instructional models, instructional model, instructional activities, instructional activity, learning activities, learning activity, assessment models, assessment model, alternative assessments, alternative assessment.

Corrections and suggestions would be greatly appreciated.

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