Instructional Strategies Chart

Description	Example	Phases	Delivery Options
Category: Information Processing Learning Strategies			
Strategy: Attaining Concepts (Ch. 6)			
Requires a student to figure out the attributes of a category that is already formed in another person's mind by comparing and contrasting examples (called *exemplars*) that contain the characteristics (called *attributes*) of the concept with examples that do not contain those attributes (p108). Students create and test hypotheses against new examples to see if hypothesis is correct or needs to be modified.	Teacher provides students with two lists, one is a list of adjectives and the other is a list of words that are not adjectives. Students are asked to compare and contrast the two lists of words and to come up with rules or a hypothesis to describe the attributes of the words in the first list. The students then test their hypothesis against additional words, adjectives and non-adjectives, provided by the teacher to see if their hypothesis meets the test or needs modification.	1. Presentation of data and identification process 2. Testing attainment of the concept 3. Analysis of thinking strategies	• Individual or group activity • face-to-face setting • assignment posted in a distance education course
Strategy: Memorization (Ch. 9)			
Methods used to memorize new knowledge. The key concepts are: awareness (attending to the information), association (linking new words to old memories), link system (linking multiple words in the context of an elaborate story or picture), ridiculous association, (links are more memorable when association is a more ridiculous or impossible scenario), substitute-word system (e.g. linking picture of bear w/honey in front of a cave, "sweet den" to Sweden), key word, using a single	In order to remember the seven layers of the OSI model I teach my student the phrase "All People Seem To Need Data Processing" to represent the OSI layers "application," "presentation," "session," "transport," "network," "data link," and "physical."	1. Attending to the material 2. Developing connections 3. Expanding sensory images 4. Practicing recall	• Expository writing exercise to help relate items to be remembered link to personal experience. • Presentation of pictures to help visualize items to be remembered. • Flash animation visualizing links • Storytelling to help link association

			together
word to trigger a longer thought or several subordinate thoughts.			• Mnemonic associations
Strategy: Synectics (Ch. 10)			
Creating something new and making the strange familiar. Designed to increase the creativity of both individual and groups. Sharing the synectics experience can build a feeling of community among students. Students learn about fellow classmates as they watch them react to an idea or a problem.	Stimulating students to see and feel an original idea in a variety of fresh ways. A teacher taking students step-by-step through the process of examining character development from stereotypical descriptions to more honest and insightful one.	Creating something new: 1. Description of the present condition 2. Direct analogy 3. Personal analogy 4. Compressed conflict 5. Direct analogy 6. Reexamination of the original task Making the strange familiar: 7. Substantive input 8. Direct analogy 9. Personal analogy 10. Comparing analogies 11. Explaining differences 12. Exploration 13. Generating analogy	• Procedures may be used with students in all areas of curriculum
Strategy: Advance Organizers (Ch. 11)			
Used as scaffolding devices, preparing the students mind to better understand what is about to come. As stated on page 249 (8th edition) in the last sentence of the last paragraph, "[b]efore we can present new material effectively, we must increase the stability and clarity of our students' structures." It should never be referred to as an "advanced" organizer which changes the meaning, indicating it is an enhanced or better version of another type of	Showing students a graphical display of the framework used in data communications to help them to understand the organizational structure of the material they are about to learn.	1. Presentation of advance organizer 2. Presentation of learning task or material 3. Strengthening cognitive organization.	Can and should be used as a preface to most learning tasks. Best presented as an organizational structure; a table, an outline, or a organizational diagram.

organizer - this is not the intent of an advance organizer.			
Category: Social Learning Strategies			
Strategy: Partners: Dyads and Groups, Cooperative Learning (Ch.12)			
System is based on the democratic process and group decisions, with low external structure. Puzzlement must be genuine – it cannot be imposed. Authentic exchanges are essential. Atmosphere is one of reason and negotiation.	Students are organized into groups and told to use the Internet to research two LAN architectures, Ethernet and Token Ring, comparing and contrasting data throughput rates, access methodologies and physical topologies. Then each group makes a class presentation on what they have found. Students then asked to read the LAN technology chapter in their textbook and asked to report on which technology is the best solution for a given scenario.	1. Students encounter puzzling situation (planned or unplanned) 2. Students explore reactions to the situation 3. Students formulate study task and organize for study (problem definition, role, assignments, etc.) 4. Independent and group study 5. Students analyze progress and process 6. Recycle activity	• Can be used to strengthen a cohort of students. • Classroom • Distance education
Behavioral Learning Strategies			
Strategy: Mastery Learning (Ch. 16)			
Not really an instructional method, but a framework for planning instructional sequences. Aptitude is its major focus, with the theory being that all students can master a set of objectives if sufficient time is provided. How quickly the student masters the objective I based on their aptitude for the task or subject.	Learning units are broken into sets of major objectives, student's progress is measured by brief diagnostic tests and instruction is adapted accordingly.	1. Establish objective for lesson 2. Select appropriate instructional materials and methods to present the assignment 3. Establish a brief diagnostic test to evaluate students performance 4. Adjust instructional materials and methods accordingly	This framework can be used as the basis for most any instructional delivery method.
Strategy: Direct Instruction (Ch. 17)			
Controlled practice or guided practice.	The ability to connect to and upload	1. Orientation	Best used for teaching

Used by predominately by training psychologists who have focused on training people to perform complex behaviors that involve a high degree of precision and often coordination with others. Its main contribution to learning situations is task definition and task analysis.	files to an FTP server is defined as the objective. Teacher explains the need for Web designers to be able to upload their creations to a Web server using the Internet's and a Web hosting site's FTP service. The teacher then demonstrates how to configure Expression Web's "Remote Server" properties to make a connection an FTP server. The teacher then demonstrates how to copy files from their local computer to the FTP server using Expression Web. The teacher then demonstrates how to open a Web browser, connect to the designated Web server, and check to see if their files were successfully uploaded. Students are then asked to perform this task at the end of each lesson throughout the course.	2. Presentation 3. Structured practice 4. Guided practice 5. Independent practice	skills-based tasks. Appropriate for classroom or distance education use.
Strategy: Simulations (Ch. 18)			
An application of the principles of cybernetics and relies heavily on feedback control systems. Places the learning in learning simulations that are as close to real world scenarios as possible to allow students to be able to better assimilate into these types of environments.	After receiving instruction and training about how to work an automobile and the rules of the road, a student is placed into an automobile simulator which both records the student's activity during operation (for replay later) and provides feedback to the student driver in order to help correct errors during operation.	1. Orientation 2. Participant training 3. Simulation operations 4. Participant debriefing	• Occupational internships • Skills and job training were simulators have been developed