

Appendices

Ways of Learning

This framework utilizes instructional methods that consider various ways of learning and demonstrating learning. Not all students learn in the same way due to individual experiences, strengths, and challenges. There are various ways to describe the different ways of learning. Three models for describing student differences are learning styles, thinking styles, and multiple intelligences. Summaries of the three models are provided below (Manitoba Education and Training, *Success for All Learners*, 1996, 4.4–4.6).

Learning Styles

The model developed by Ken Dunn and Rita Dunn of St. John's University, New York, classifies students according to their learning styles:

- **Auditory learners** absorb spoken material easily and are likely to ask for information rather than read printed instructions.
- **Visual learners** learn best from information that they read or see.
- **Tactile learners** learn best by handling materials, writing, drawing, and being involved in concrete experiences.
- **Kinesthetic learners** learn best by moving and doing, by taking part in activities that have direct relevance to their lives.

Dunn and Dunn believe that most people have two highly developed learning styles, and that within a class of 30 students, 22 will be balanced in their ability to take in information in a variety of ways.

Thinking Styles

Anthony Gregorc (1982) of the University of Connecticut has developed a theory of thinking styles based on two variables: the way we view the world (do we see things concretely or abstractly?) and the way we order the world (in sequential or random order). In Gregorc's framework, these two variables combine to describe four thinking styles:

- **Concrete sequential thinkers** are based in the physical world that they can detect through their senses. They notice and recall details easily, and remember facts, formulas, and rules with ease. They learn well through “hands-on” experiences.
- **Concrete random thinkers** are experimenters/divergent thinkers, willing to take the intuitive leaps necessary for creative thought. They have a strong need to find alternatives and to do things in their own way.
- **Abstract sequential thinkers** love the world of theory and abstract thought. Their thinking processes are logical, rational, and intellectual. They prefer to work alone rather than in groups.
- **Abstract random thinkers** organize information through reflection, and thrive in unstructured, people-oriented environments. They live in the world of feelings and emotions, and learn best when information is personalized.



Multiple Intelligences

The theory of multiple intelligences is a cognitive model developed by Harvard psychologist Howard Gardner in the 1980s. Gardner's theory is that each of the following seven intelligences has an evolutionary history, its own symbolic system, and a separate locus in the human brain:

- **Verbal/linguistic intelligence** is responsible for the production of language and all of the complex possibilities that follow: storytelling, abstract reasoning, symbolic thinking, conceptual patterning, and, of course, the written word.
- **Logical/mathematical intelligence** is most often associated with “scientific thinking,” deductive reasoning, and problem solving. This intelligence involves the capacity to recognize patterns, to work with abstract symbols such as numbers and geometric shapes, and to see connections between separate pieces of information.
- **Visual/spatial intelligence** deals with the visual arts, navigation and map-making, architecture, and games such as chess. The key sensory base of this intelligence is sight, but also the ability to form mental images.
- **Body intelligence** is the ability to use the body to express emotion (as in dance and body language), to play a game, or to devise an invention. Individuals with high body intelligence thrive on hands-on experience; they “learn to do by doing.”

- **Musical/rhythmic intelligence** includes such capacities as the recognition and use of rhythmic and tonal patterns, and sensitivity to sounds from the environment, the human voice, and musical instruments. Many children learn the alphabet through this intelligence.
- **Interpersonal intelligence** involves the ability to communicate verbally and non-verbally, to work cooperatively in a group, and to observe the moods, temperament, and intentions of others. Individuals with high interpersonal intelligence are able to imagine and empathize with the experience of others.
- **Intrapersonal intelligence** involves knowledge of the self, of feelings, thinking processes, and spiritual realities. This intelligence involves our capacities for self-reflection, to experience wholeness and unity, to perceive higher states of consciousness, and to dream of and actualize the possible.

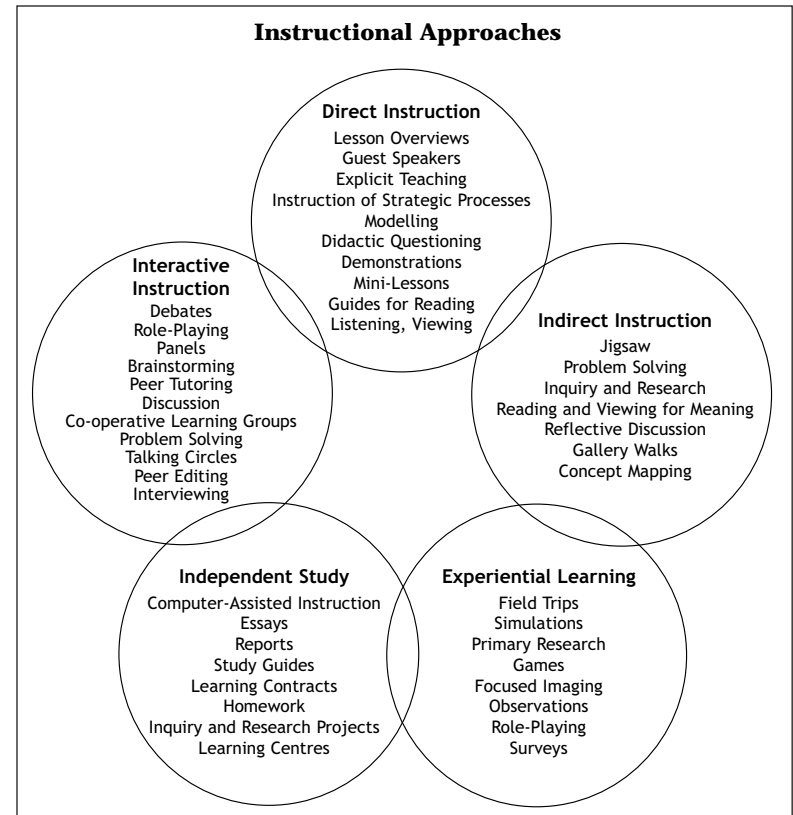
Gardner's multiple intelligences theory proposes that each person has capabilities of varying degree in all seven intelligences, and that we perform most functions through a complex interaction of several intelligences. (Ongoing research may result in the identification of other intelligences.)

Multiple Intelligences: From *Seven Ways of Knowing: Teaching for Multiple Intelligences*, Second Edition, by David Lazear. © 1991 IRI/SkyLight Training and Publishing, Inc. Reprinted by permission of SkyLight Professional Development, www.skylightedu.com or (800) 348-4474.



Instructional Approaches

The topics and issues covered in Family Studies courses are to develop skills and promote reflective learning. There is no single way to teach or learn. The nature of Family Studies courses calls for a variety of instructional approaches to support the learning of students. Teachers use their professional judgment to decide which instructional methods will be most effective in promoting the learning of knowledge and skills. The following diagram displays instructional approaches and methods of application.



Instructional Approaches: Figure adapted, with permission, from Saskatchewan Education. *Instructional Approaches: A Framework for Professional Practice*. Copyright © 1991 by Saskatchewan Education.



Glossary of Instructional Approaches

Direct Instruction

Lesson Overviews—Teachers construct the frame that best suits their subject matter, grade, and classroom and lesson organization. Overviews are often put on a transparency or erasable poster so they can be reused with each class. The purpose is to help students focus on the goals of the lesson and to place the lesson in the context of a unit.

Guest Speakers—Inviting professionals or those with information on topics being studied offers students the opportunity to examine topics from a personal point of view and to obtain current, reality-based responses to questions.

Explicit Teaching—Teacher-directed lectures can provide students with information that may be required before high-order thinking can occur. Teachers are encouraged to provide information which meets at least two learning modalities (visual, auditory, tactile, and kinesthetic) by using overheads, writing on the board, and supplying handouts and reading notes.

Instruction of Strategic Processes—Strategic processes outline the steps required to complete a task and move on to the next level.

Modeling (role-playing, think alouds, and demonstrations)—Teachers model their use of strategies so that students can emulate them. Teachers verbalize all thoughts for students as they demonstrate skills or processes. After several modeling experiences, students

should practise using the strategy in pairs. Ultimately, students should work independently with the strategy.

Didactic Questioning—By asking leading questions, teachers can draw information and answers from students.

Demonstrations—A teacher, student, or guest demonstrates a technique to students. This technique works best if students are allowed to practise the technique on their own or in pairs following the demonstration. The teacher or fellow students offer feedback. Students should be given the opportunity to reflect on their proficiency and areas for improvement.

Mini-Lessons—Mini-lessons are lessons that are 20 minutes in length. Recent brain research indicates that learning/retention occurs in the first 20 minutes of each class.

Guides for Reading, Listening, Viewing—Providing students with guides (e.g., guided notes for a video) helps them to identify important information and encourages attentiveness.

Indirect Instruction

Jigsaw—Individuals or small groups each explore a different topic or a different area of the same topic. Individuals or groups are then responsible for teaching their newly acquired knowledge to the rest of the class.

Problem Solving—Teachers can stimulate student thinking by presenting a situation in which the student works through a process which leads to a solution.



Inquiry and Research—Individually, in pairs, or in small groups, students explore topics and present their findings to the class via an oral presentation or Gallery Walk.

Reading and Viewing for Meaning—These are techniques of reading print material and viewing visual media to become more conscious, discerning, critical, and appreciative of the texts.

Reflection—Learning Logs: Students regularly write short, spontaneous, exploratory, personal pieces of writing about the content they are studying. It is writing for thinking and not for creating a polished product.

Admit/Exit Slips—Students fill in these small slips at the beginning and end of the class. They help students to focus on what they expect to learn, and to reflect on what they have learned. This provides the teacher with information on student learning.

Gallery Walks—Teachers or students display information and samples on various topics throughout the room. Individually, in groups, or as a class, students circulate and are presented different information at each station.

Concept Mapping—Teachers assign students a word or idea and have them generate related words and/or topics. Students then examine the relationships between the words and ideas they have generated.

Experiential Learning

Field Trips—Students visit sites that relate to topics being studied. The most successful excursions outside the classroom are those that are organized because students have asked to visit a particular site to further some aspect of research they have undertaken.

Simulations—Students practise a skill or technique under controlled or ideal conditions with teacher or peer guidance before they are given the opportunity to perform on their own.

Primary Research—Primary research explores original (first-hand) sources. It may include interviews or reading first-hand accounts of a person's experience or findings.

Games—Teachers conduct activities based on popular board or television games. Questions can be based on course content and can be written by the teacher or the students. Games can be used to review information or to activate learning prior to starting a unit.

Focused Imaging—Teachers talk students through an event. Students may choose to close their eyes, listen, and visualize as the teacher describes a process, event, or location. Focused imaging can be enhanced with sound effects.

Observations—Students and the teacher identify phenomena they are looking for and observe the frequency of occurrence. Observations can be used to determine how a process takes place. It is important that teachers remind students to remain objective (record what they see) and to not make assumptions regarding causes of phenomena.



Role-Playing—The teacher provides, or the students write skits which students act out in an effort to explain or demonstrate an idea or the sequence of a process.

Surveys—Students or the teacher develop questions and determine an audience in an effort to study a phenomenon, belief, or the perceptions of others.

Independent Study

Computer-Assisted Instruction (CAI)—Software (computer programs) can provide exercises for drill and practise, rapid evaluation of student response, student feedback, concrete representations of abstract concepts, and more one-on-one instructional time.

Essays and Reports—Students research and write on a topic assigned by the teacher, or one that they have chosen themselves.

Study Guides—Students review content through the use of a document that provides the framework of knowledge covered in a unit or course.

Learning Contracts—The teacher and students create a contract or proposal specifying the topic, learning outcomes, experiences, products, resources, timelines, and assessment.

Homework, Inquiry, and Research Projects—Students are given the opportunity to independently research and examine information that is covered in class.

Learning Centres—Teachers organize the classroom into various activity or learning stations. These offer opportunities for independent inquiry and exposure to a wide variety of materials and sources of information.

Interactive Instruction

Debates—The class is divided into two groups (teams). Each team is assigned one side of an issue to defend or promote. Teams are responsible for generating support for their side of the issue. Following the time assigned for developing arguments, students individually argue points on behalf of their team by introducing new points or offering a rebuttal to points made by the other team.

Role Playing—The teacher provides or the students write skits which students act out in an effort to explain or demonstrate an idea or sequence of a process.

Panels—Panels are groups of people with first-hand knowledge or experience on a topic.

Brainstorming—Students generate ideas and information as a result of contributing what they already know, and building on the ideas of others.

Peer Tutoring—Students teach and learn from one another as they share their work.

Discussion—Discussion is the most useful way of transmitting information, learning what students think and know, and building a sense of classroom identity, when all class members have a chance to speak before anyone responds twice.



Co-operative Learning Groups—Students are placed into small groups or teams, based on the teacher’s criteria, and work together at various times to achieve common learning goals.

Problem Solving—Problem solving is a meaningful task that centres on overcoming constraints or limiting conditions.

Talking Circles—Based on First Nations teachings, talking circles create a safe environment for discussion of conflicts, difficult situations, or decisions that students may face. This allows every student to be heard and teaches students to respect each other and build consensus.

Peer Editing—Peer editing can involve ongoing groups in which students give feedback on drafts of each other’s writings for the purpose of improvement.

Interviewing—Students generate questions to ask and arrange an interview with a person who has first-hand knowledge and/or experience with a topic.



