# Instructional Strategies Chart

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**Instructional Strategies**

1. **Compare and Contrast**
2. **Concept Attainment**
3. **Decision Making**
4. **Direct Instruction**
5. **Gamification**
6. **Graduated Difficulty**
7. **Metaphorical Expression**
8. **Microlearning**

# Compare and Contrast

## Description

Compare and Contrast allows students to compare two different objects and make a distinction based on those objects. The students are able to identify similarities and differences. The process involves:

1. Describing each individual item on its own
2. Seeing similarities and differences
3. Formulating a discussion and conclusion
4. Completing a synthesized task

## Example

1. The student describes the difference between a square and a triangle.
2. The student looks at different aspects of the square and triangle, such as number of sides and degree of angles.
3. The learner then compares and contrasts the two objects.
4. The learner then looks at the similarities and differences between a square and a triangle.
5. The students can apply the knowledge that they learned from this method to do basic geometry.

## UDL Principle

The UDL Principle that can be used is Engagement. Students with concentration or motivational barriers can utilize the Compare and Contrast method to increase engagement by having more interest in the subject through learning with this instructional strategy.

## Delivery

- Discussion and Debate
- Side-by-Side Comparison
- Hands-on Activities

# Concept Attainment

## Description

Concept Attainment allows students to explore topics very profoundly. The students understand concepts from the beginning and then refine their understanding. The steps are:

1. Select a topic
2. Use yes and no examples to identify the different concepts
3. Assist the students in the examples
4. Reflect on what is learned
5. Create synthesis tasks

## Example

1. Is the object a plant or an animal?
2. Show pictures and ask students if it is yes an animal or no a plant
3. Assist the students
4. Have the students reflect on what traits plants and animals have
5. Have students map out animal characteristics in a web diagram

## UDL Principle

The Concept Attainment Model is known for using Representation. It provides students with the material in different contexts and situations to ensure that different delivery methods represent all students.

## Delivery

- Visual Representation
- Technological Representation
- Interactive Activities

# Decision Making

## Description

With the decision-making approach, students utilize strategy. The learner makes decisions or evaluations that build a foundation of critical thinking skills. The steps are:

1. Determine the content
2. Determine how to present the questions to the students
3. Choose if the students will evaluate or make decisions
4. Choose the information sources for the lesson
5. Develop alternatives
6. Communicate the decision/evaluation

## Example

1. The teacher asks, "What are the causes of World War 1?"
2. The students will evaluate the question.
3. The teacher will use various sources, such as internet articles, books, and the class textbook.
4. The teacher will talk about different viewpoints from across the time period.
5. The teacher will allow the students to come to a conclusion during a group discussion.

## UDL Principle

The UDL Principle that is expressed is Action/Expression. Students will utilize multiple viewpoints during activities and discussions, fostering the expression of all individuals.

## Delivery

- Debates
- Case Studies
- Role-Playing

# Direct Instruction

## Description

This strategy utilizes declarative content to maximize acquiring skills. The teacher demonstrates and explains the skills to the students. The steps are:

1. Effective Modeling: This part outlines the steps and shows how each step is performed. It also explains outcomes and what is expected of the students.
2. Emerging Independence: Students are moved from dependence to independence. This process fosters the learner to complete the steps on their own.
3. Learning by Questioning: Students ask questions to help them understand the material. Afterward, they learn by guided practice, where they work through the problems with the instructor's help.
4. Ongoing Assessment: After the students have practiced, they are moved on to a formal evaluation. This evaluation is an assessment of their knowledge of the subject material.

## Example

The teacher guides the students on how to solve a linear equation.

1. Write the equation out.
2. Isolate the x variable to the right side.
3. Subtract the numbers on the right side and move them to the left side of the equation.
4. Multiply/divide the x variable to get the variable equal to 1.

## UDL Principle

The UDL Principle that is utilized is Representation. Students with disabilities can be represented by being accommodated during instruction with audio/visual aids and hands-on activities.

## Delivery

- Lectures
- Guided Practice
- Structured Exercises

# Gamification

## Description

Game-based learning combines education and games to motivate the learner. The purpose of education is for learning to occur, and the purpose of gamification is to increase learner engagement. These steps will ensure a successful GBL learning strategy:

1. Find a topic or subject
2. Create a learning game
3. The learner practices the game
4. An assessment takes place
5. Feedback is given to the learner

## Example

An educational game is created to teach learners about the fifty state capitals in the USA.

1. The instructor selected the topic of the USA state capitals.
2. The target audience of children in 3rd grade who live in the USA is selected.
3. The learning objects of remembering and understanding the fifty capitals of the USA are addressed.
4. A prototype is created and tested for the educational game. The game is a tic-tac-toe game, where the learner selects a square and is asked about one of the state capitals.
5. The final version of the game is implemented.
6. Students who play the game are intrinsically motivated to learn the topic. The students must meet the learning objectives.

## UDL Principle

Engagement is the principle utilized for game-based learning because the learner overcomes motivational barriers from intrinsic and extrinsic motivation. Intrinsic motivation would include the joy and sensation of playing a game. Extrinsic motivation would include points, leaderboards, avatars, and badges.

## Delivery

- Video Games
- Card Games
- Tabletop Games

# Graduated Difficulty

## Description

The instructional strategy of Graduated Difficulty encompasses the learner with a self-directed approach. The difficulty steps gradually increase, and the learner gains autonomy in the learning process. The steps to this strategy would include:

1. The instructor gathers various tasks at different levels of skill required to complete the tasks.
2. The instructor selects the most appropriate task for the learner based on the skill level.
3. The task must be finished and assessed by the instructor.
4. Goals must be addressed for continuous improvement.

## Example

The topic of quadratic equations is selected for an $8^{th}$-grade classroom.

1. The teacher starts by assessing the different methods at different difficulty levels. The three methods are factoring, completing the square, and the quadratic formula.
2. The quadratic formula is selected because the students are in their second year of algebra.
3. The students are given a worksheet to complete practice problems. The instructor collects it afterward.
4. The teacher sets goals for the students based on their previous performance.

## UDL Principle

Multiple means of Engagement are addressed with the instructional strategy of Graduated Difficulty because the learner has different skill levels for each assigned task. This process allows the learner to be included by their varying levels of knowledge of the subject material.

## Delivery

- Scaffolding Activities
- Differentiated Instruction
- Tiered Assessment

# Metaphorical Expression

## Description

The strategy of Metaphorical Expression uses metaphors and similes to compare objects or concepts that are completely different. This strategy requires the highest level of understanding because the students develop their perspectives on the subject material. The steps for Metaphorical Expression are as follows:

1. Introduce the content
2. Present the material to the students
3. Model a Metaphorical Expression
4. Give the students two items to compare using metaphors
5. Have the learner explain the metaphors to the class in a group discussion
6. Allow the students to reflect and build on the content given to them
7. Synthesize the task with a writing or a project

## Example

The instructor wants the learner to use a metaphor to compare anger with fire.

1. The learner is given a reading of short stories for middle school students.
2. The metaphor is modeled after the main theme of one of the stories.
3. The students compare how one of the antagonists uses his anger to destroy everything in their path like a wilderness fire.
4. The students discuss the short story in a classroom discussion setting.
5. The students are then given a homework project based on the discussion and reading.

## UDL Principle

Metaphors are a means of Representation so that all students can understand the concept. Due to the idea that a metaphor compares an abstract concept to a real one, different groups can relate to the concepts because multiple opinions will be expressed from varying backgrounds.

## Delivery

- Story Telling
- Interactive Activities
- Writing Assignments

# Microlearning

## Description

Microlearning is creating a learning module that is between 5-15 minutes. It is best incorporated when using mobile devices. Microlearning is excellent for teaching learners in rapid sessions. These sessions are great for people who have a limited amount of time. This instructional strategy incorporates learning theories such as Behaviorism, Cognitivism, Constructivism, and Connectivism. Microlearning usually encompasses the three lowest levels of Bloom's Taxonomy because of the rapid delivery of the content. Due to this, the learning objects are traditionally at the remember and understand phase.

## Example

The content creator makes a class on LinkedIn Learning. The course teaches the user how to do basic calculations in Excel. The steps are:

1. A brief lecture on Excel functions and formulas.
2. A video on how to add, subtract, multiply, and divide in Excel.
3. A downloadable package with practice problems.
4. A quiz at the end will be administered to the learners to assess their knowledge and understanding of the content.

## UDL Principle

Microlearning is associated with the Engagement aspect of the UDL. Engagement is utilized because the learner is given autonomy and flexibility with how, what, and when they want to learn.

## Delivery

- Videos
- Podcasts
- Interactive Modules