Effective Instruction for Inclusive Classrooms

**Competencies:**

Define inclusive instructional practices.

Identify the essential elements of Universal Design for Learning (UDL) and identify why UDL is necessary for designing inclusive instruction.

Identify the essential elements of Differentiated Instruction (DI) and/or identify how DI is used within a UDL approach to instruction in an inclusive classroom.

**Objectives:**

Given the term “Inclusive instructional practices,” identify and/or apply the ASSET definition “use research-based instructional strategies intentionally to meet all students’ needs during general education instruction.”

Given the term “Universal Design for Learning,” identify that UDL instruction includes multiple means of representation, engagement, and/or action and expression for each curricular goal.

When asked how Universal Design for Learning makes classroom instruction inclusive, apply knowledge of how UDL instruction maximizes opportunities for all learners to be successful.

Given an instructional activity or lesson plan that is not Universally Designed, identify specific changes to the lesson plan that make the lesson UDL.

Given the term, “Differentiated Instruction,” apply knowledge of how DI can be used to address student’s characteristics or needs.

When asked to identify the relationship between UDL and DI, identify that UDL is the instructional design for all students in the classroom that accounts for learner variation, while DI is an additional instructional design consideration that targets individual students’ specific learning needs relative to a specific curricular task or goal when their needs exceed what is offered in the UDL lesson.
Effective Instruction for Inclusive Classrooms

**Competencies:**
Identify the essential elements of Response to Intervention (RTI) and Multi-Tier System of Supports (MTSS); identify how Universal Design for Learning (UDL) and Differentiated Instruction (DI) fit into an RTI/MTSS framework to make classrooms more inclusive.

**Objectives:**
Given the term Response to Intervention (RTI), identify the essential elements of RTI and/or their implementation.

Given the term, Multi-Tier System of Supports (MTSS), apply knowledge of why the framework facilitates inclusion.

When asked to identify the relationship between Universal Design for Learning (UDL), Differentiated Instruction (DI), and RTI/MTSS, apply knowledge of how the framework of RTI/MTSS interacts with designing UDL instruction and/or planning DI for individual students.

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**Competencies:**
Select appropriate methods to teach early learners mathematical problem-solving strategies.

**Objectives:**
Identify processes for using common classroom routines to enhance problem-solving skills.

Identify how visual representations and manipulatives can be used to teach prerequisite problem-solving skills with early learners.

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**Competencies:**
Select appropriate methods to teach classification of word problem type and structure.

**Objectives:**
Identify which of the eight problem categories the word problem represents.

Determine the subcategory of the word problem to ascertain the type of unknown value for which to solve.

Create the corresponding equation most commonly connected to that given word problem category.
Elementary Math: Making Sense of Word Problems

Competencies:

Select appropriate methods to teach problem-solving strategies based on word problem type and structure.

Objectives:

Identify appropriate use of visual representations and manipulatives for problem-solving.

Identify appropriate use of worked examples for problem-solving.

Identify appropriate strategies for using the think-aloud method to teach students’ self-monitoring and reflection skills.

Identify strategies to teach students to distinguish between important and unimportant information in problems they are asked to solve.

Select strategies, accommodations, and/or modifications for students who struggle with word problems due to difficulties with written text due to low reading level, linguistic diversity, or disability.

Identify instructional accommodations for teaching word problems to struggling readers.

Identify instructional modifications for teaching word problems to struggling readers.
Elementary Math: Progression Towards Proportional Reasoning

**Competencies:**

Explore how the progression of elementary mathematics concepts leads to the introduction of proportional reasoning.

Identify appropriate mathematics teaching strategies to support students as they solve ratio-based problems.

Identify appropriate mathematics teaching strategies for solving proportional reasoning problems.

**Objectives:**

Identify mathematical concepts of K - 2 instruction that develops an informal understanding of proportional reasoning.

Identify the appropriate perspective for representing a ratio in a given context.

Identify a proportion as two equivalent ratios.

Identify appropriate strategies for teaching ratio-based problems.

Correctly solve ratio-based problems.

Identify appropriate strategies for teaching proportional reasoning problems.

Identify concepts of fractions that are needed in developing proportional reasoning.

Correctly solve proportional reasoning problems.

Identify the K-5 skill progression needed to prepare students for proportional reasoning in middle school.

Identify appropriate strategies for teaching proportional reasoning problems.
Elementary Math: Number Sense

Competencies:
Identify methods for teaching and assessing student understanding of counting numbers, the base-ten number system, decimals, and integers.

Describe key research-based strategies for promoting a strong sense of number in students.

Maximize math instruction time in the classroom.

Objectives:
Identify how students learn numbers and counting.

Apply characteristics of decimals and/or negative numbers.

Identify the appropriate methods for assessing student understanding of numbers.

Identify the appropriate sequence in which to teach mathematical skills for number sense.

Apply the characteristics and/or benefits of subitizing.

Identify best practices for teaching number sense in a developmental progression.

Identify ways to integrate number sense practice into your daily classroom routines.

Modify an existing lesson to plan to include number sense practice.
Elementary Math: Number Relationships

**Competencies:**

Identify appropriate teaching methods for comparing and rounding integers and decimals.

Describe the foundational properties of fraction and decimals.

Compare and contrast fractions, decimals, and percentages.

Utilize formative assessments to promote learning.

**Objectives:**

Compare numbers in the decimal system.

Round numbers in the decimal system.

Determine appropriate pedagogical methods for teaching decimals and rounding numbers.

Apply the definitions of fractions.

Identify the correct representation of a fraction based on specific context.

Identify the location of a fraction on a number line.

Apply the definition of percentages.

Solve problems involving fractions, decimals, and/or percentages.

Identify the rationale and/or benefits of formative assessment in the classroom.

Determine appropriate methods for using formative assessments in the classroom to increase student learning outcomes.
Elementary Math: Number Operations

**Competencies:**

Select appropriate strategies for teaching and assessing students' adding and subtracting skills.

Determine appropriate strategies students can use when adding or subtracting.

Demonstrate an ability to utilize place value and the multiplicative properties to support the instruction of multiplication.

Connect the definition of division to division algorithms to help students improve their understanding of division.

**Objectives:**

Use the correct terminology of addition and/or subtraction.

Apply the common algorithms to addition and/or subtraction.

Select effective strategies for assisting learners who have difficulty with addition and subtraction.

Utilize strategies used by students with addition and subtraction.

Identify the correct property of addition.

Apply strategies and/or number properties to guide students in solving addition and subtraction problems.

Apply a variety of models and/or approaches to exploring multiplication.

Relate place value to multiplying numbers by ten.

Utilize the properties of multiplication.

Apply a variety of models and/or approaches to exploring division.

Apply the division algorithms to different scenarios.

Express answers to division problems as whole numbers or fractions.

Solve division problems including decimals or large numbers.
Elementary Math: Number Operations

**Competencies:**
Identify appropriate strategies for assisting learners when applying the order of operations.

**Objectives:**
Simplify expressions using the correct order of operations.
Determine an appropriate strategy to assist a student having difficulty with simplifying expressions using the order of operations.

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Elementary Math: Making Sense of Fractions

**Competencies:**
- Identify tools and strategies that build upon early learners’ intuitive understanding of fractions.
- Identify tools and strategies to convey that fractions are numbers with magnitude.
- Explain how tools and strategies can be used to improve conceptual understanding of computational procedures with fractions.

**Objectives:**
- Use strategies and/or activities that connect fair sharing of a collection of objects to concepts of fractions.
- Use strategies and/or activities that connect fair sharing of a single object to concepts of fractions.
- Use number lines to represent fractions as numbers with magnitude.
- Incorporate measurement tools into strategies and/or activities to represent fractions as numbers with magnitude.
- Use virtual representations and manipulatives to provide a connection between fraction operations and their underlying structures.
- Identify appropriate methods for implementing estimation skills of reasonable solutions into problems with fractions.
- Use real-world contexts and problems to connection fraction operations and their underlying structures.
Elementary Math: Foundations of Visual Representations and Manipulatives

**Competencies:**

Understand effective strategies for using visual representations and manipulatives to enhance or differentiate mathematics instruction in the elementary mathematics classroom to best meet the needs of a diverse learning population.

Evaluate considerations for the use of visual representations and manipulatives to enhance or differentiate mathematics instruction in the general education classroom to best meet the needs of a diverse learning population.

Use different GeoGebra applets to enhance instruction in the elementary classroom for a diverse learning population.

**Objectives:**

Identify appropriate visual representations and manipulatives for effective instructional use in the elementary mathematics classroom.

Apply effective ways to implement visual representations and manipulatives for instruction in the elementary mathematics classroom.

Determine the appropriateness of visual representations and manipulatives for a given lesson in the elementary mathematics classroom.

Identify various factors teachers need to consider when creating activities to teach elementary mathematics that use visual representations and manipulatives.

Evaluate the effective use of GeoGebra apps for instruction in the elementary mathematics classroom for a diverse population of learners.

Identify ways to improve the use of specific GeoGebra apps to meet the needs of a diverse learning population.
Competency:

Apply (a) multiple definitions of literacy and (b) centrality of reading to your personal philosophy of literacy in your own classroom to be more effective in teaching reading.

Objectives:

Differentiate the four definitions of literacy.

Identify best practices for teaching literacy.

Construct your personal definition of literacy as it applies to your teaching practice based on what you have learned in this module.
Competencies:

Differentiate basic principles of Positive Behavior Interventions and Supports (PBIS) from traditional approaches.

Identify the rationale for using Positive Behavior Interventions and Supports (PBIS) approaches in schools.

Identify how the multi-tiered system of supports (MTSS) can address behavior needs for students.

Objectives:

Differentiate the Management Equation Model and/or the Probability Equation Model.

Differentiate control-based and/or access-based approaches.

Identify key features of Positive Behavior Interventions and Supports (PBIS) approaches.

Identify problems associated with punishment-based approaches.

Identify characteristics associated with reactive “get tough” practices to address student problem behaviors.

Identify characteristics associated with zero tolerance policies and/or school exclusion.

Identify evidence-based outcomes associated with Positive Behavior Interventions and Supports (PBIS) practices in schools.

Identify the parameters of the multi-tiered systems of academic support and/or behavior support.

Identify the focus and/or key features for each behavior support tier in the multi-tiered system.

Identify common vocabulary used in each behavior support tier in the multi-tiered system.
Classroom Management: Foundations of Positive Behavior Interventions and Supports (PBIS)

**Competencies:**
Identify the basic elements included in Positive Behavior Interventions and Support (PBIS) plans.

**Objectives:**
- Identify key features of any well-developed PBIS plan.
- Identify steps in developing PBIS plans.
- Identify key decision-making elements from the PBIS implementation framework.

Classroom Management: Tier 1 Positive Behavior Interventions and Supports (PBIS)

**Competencies:**
Describe how to prepare for implementation of Tier 1 Positive Behavioral Inventions and Supports (PBIS) in a school.

**Objectives:**
- Identify characteristics of Tier 1 PBIS.
- Identify features of school environments that support emotional, social, and/or physical well-being of students and/or staff.
- Identify key school-wide tools that support PBIS implementation.

Use guiding questions and effective practices to implement Tier 1 Positive Behavioral Interventions and Supports (PBIS) school-wide.

**Objectives:**
- Interpret data from Office Discipline Referrals based on the guiding questions, “What are the predictable behavioral problems for our students?” and “Are our interventions and supports effective in addressing behavioral problems?”
- Identify effective practices in relation to positive student behaviors based on the guiding question, “What can we do to prevent behavioral problems from occurring?”
- Identify activities related to school PBIS Leadership Teams to promote teacher-student relationships based on the guiding question, “How can we stay consistent?”
Classroom Management: Tier 1 Positive Behavior Interventions and Supports (PBIS)

**Competencies:**

Use guiding questions and effective practices to implement Tier 1 Positive Behavioral Interventions and Supports (PBIS) at the classroom level.

Describe how trauma informed practices can be integrated into Tier 1 Positive Behavioral Interventions and Supports (PBIS) in a school or classroom.

**Objectives:**

Use classroom data collection for decision making based on the guiding questions, “What are the predictable behavioral problems for my students?” and “Are my interventions and supports effective in addressing behavioral problems?”

Recognize effective practices in relation to positive student behaviors based on the guiding question, “What can I do to prevent behavioral problems from occurring?”

Identify how to develop relationships with students based on the guiding question, “How can I stay consistent?”

Identify the importance of student and/or staff perception of school as a safe place.

Apply strategies for addressing relationship needs of students.

Apply strategies for addressing responsibility needs of students.

Apply strategies for addressing regulation needs of students.