EDSE 625 Math Unit

by Jane Monahan

Assessment

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Assignment: Being sensitive to cultural and language differences candidate will teach a math unit during assigned field experience, which includes 5 lessons, and a pre- and post-teacher made assessment. Candidate will explain the importance and function of the math concepts to student(s) prior to pre-assessment. The pre-assessment will determine the skills to be taught to the group or individual. From the assessment results candidate will develop and write one math goal and 3 math objectives to be presented in five lessons (at least 30-minute in length) using the scope and sequence charts in the Hudson & Miller text as a resource guide. Candidate will create a post-assessment that will determine the extent students now understand the mathematical concept(s) presented in the series of lessons. Candidate will reflect on pre- and post-assessments and lesson effectiveness by writing notes on their assessment and lesson plan documents indicating what worked well, what did not work and how it could be improved. Candidate will summarize in writing (minimum 250 words) how to improve their deliver of math lessons in the future.

Candidates must have Meeting Expectations or Exceeding Expectations on all portions of this Key Assessment in order to pass the class. Key Assessment products and rubrics must be kept for their Special Education Portfolio.

Standards

CEC-INI-2012.1	Learner Development and Individual Learning Differences: Beginning special education professionals understand how exceptionalities can interact with development and learning and use this knowledge to provide meaningful and challenging learning experiences for individuals with exceptionalities.
CEC-INI-2012.1.1	Beginning special education professionals understand how language, culture, and family background can influence the learning of individuals with exceptionalities.
CEC-INI-2012.1.2	Beginning special education professionals use understanding of development and individual differences to respond to the needs of individuals with exceptionalities.
CEC-INI-2012.5.1	Beginning special education professionals consider an individual's abilities, interests, learning environments, and cultural and linguistic factors in the selection, development, and adaptation of learning experiences for individual with exceptionalities.
CEC-INI-2012.5.2	Beginning special education professionals use technologies to

	support instructional assessment, planning, and delivery for individuals with exceptionalities.
CEC-INI-2012.5.3	Beginning special education professionals are familiar with augmentative and alternative communication systems and a variety of assistive technologies to support the communication and learning of individuals with exceptionalities.
CEC-INI-2012.5.4	Beginning special education professionals use strategies to enhance language development and communication skills of individuals with exceptionalities
CEC-INI-2012.5.5	5: Beginning special education professionals develop and implement a variety of education and transition plans for individuals with exceptionalities across a wide range of settings and different learning experiences in collaboration with individuals, families, and teams.
CEC-INI-2012.5.6	Beginning special education professionals teach to mastery and promote generalization of learning.
CEC-INI-2012.5.7	Beginning special education professionals teach cross-disciplinary knowledge and skills such as critical thinking and problem solving to individuals with exceptionalities.

EDSE 625 Math Unit -- CEC Standards Rubric

	Exceeding Expectations (4.000 pts)	**Meeting Expectations** (3.000 pts)	**Developing** (2.000 pts)	**Emerging** (1.000 pt)
1. Learner Development and Individual Learning Differences (1.000, 10%) CEC-INI-2012.1	Uses a variety of augmentative, alternative, and assistive technologies to support and enhance math skills of individuals with exceptional needs and can explain them to parents and general educators.	Uses augmentative, alternative, and assistive technologies to support and enhance math skills of individuals with exceptional needs.	Relies on the same augmentative, alternative, and assistive technologies to support and enhance math skills of individuals with exceptional needs.	Struggles when learning about augmentative, alternative, and assistive technologies to support and enhance math skills of individuals with exceptional needs.
1.1 Describes how language, culture, and family background influence the learning of individuals with exceptionalities (1.000, 10%) CEC-INI-2012.1.1	Recognizes how language, culture, and family background influence the learning of individuals with exceptionalities and is able to provide needed supports to individualize math lessons for students multiple settings.	Recognizes how language, culture, and family background influence the learning of individuals with exceptionalities and provides needed supports to individualize math lessons for students	Recognizes how language, culture, and family background influence the learning of individuals with exceptionalities but needs support to come up with appropriate differentiating strategies in math for students to learn new skills.	Recognizes how family background influence the learning of individuals with exceptionalities, but does not recognize the influence of language or culture. Struggles to come up with appropriate differentiating strategies in math to individualize for the student.

1.2 Describes development and individual differences to respond to the needs of individuals with exceptionalities (1.000, 10%) CEC-INI-2012.1.2	Designs the math unit, keeping in mind the similarities and differences in human development and provides differentiated instruction to all students.	Designs the math unit, keeping in mind the similarities and differences in human development and provides differentiated instruction.	Designs the math unit, keeping in mind the similarities and differences in human development and provides two levels (high and low) instruction.	Designs the math unit, and teaches all students at one level without differentiation.
5.1: Considers an individual's abilities, interests, learning environments, and cultural and linguistic factors in the selection, development and adaptation of learning experiences for individuals with exceptionalities (1.000, 10%) CEC-INI-2012.5.1	Considers an individual's abilities, interests, learning environments, and cultural and linguistic factors in the selection, development and adaptation of math unit lessons and teaches the unit using a variety of learning styles and cultural perspectives.	Considers an individual's abilities, interests, learning environments, and cultural and linguistic factors in the selection, development and adaptation of math unit lessons for individuals with exceptionalities.	Considers an individual's abilities, learning environment, and interests, when developing the math unit lessons.	Only considers an individual's abilities, when developing the math unit lessons.
5.2: Uses technologies to support instructional assessment, planning, and delivery for individuals with exceptionalities (1.000, 10%) CEC-INI-2012.5.2	Uses multiple technologies (iPad, Smart board, digital overhead, or data collection Apps) with ease to support instructional assessment, planning, and delivery for individuals with exceptionalities.	Uses technologies to support instructional assessment, planning, and delivery for individuals with exceptionalities.	Only uses the iPad Apps as practice and reinforcement of math skills delivery for individuals with exceptionalities.	Uses paper and pencil tasks in the math lessons for individuals with exceptionalities and does not introduce technology.
5.3: Supports the communication and learning of individuals with exceptionalities with a variety of augmentative and alternative communication systems and assistive technologies.	Uses Augmentative and Alternative Communication (AAC) systems and a variety of Assistive Technologies (AT) to support communication and learning by: Providing AAC systems and AT to students. Effectively encouraging students to use AAC systems and AT throughout the lesson.	Alternative Communication (AAC) systems and a variety of Assistive Technologies (AT) to support communication and learning by: Providing some AAC systems and AT for students to use Encouraging students to use AAC systems and AT throughout the lesson. Identifying AAC	Augmentative and Alternative Communication (AAC) systems in lesson plans but infrequently encourages students to utilize such devices during the lesson. Uses some Assistive Technologies (AT) devices effectively to support learning and communication.	Augmentative and Alternative Communication (AAC) systems in lesson plans but fails to provide such systems and fails to encourage students to utilize such devices when available. Uses limited number of Assistive Technologies (AT) devices with limited support to learning and

(1.000, 10%) CEC-INI-2012.5.3	Accurately identifying AAC systems and AT within lesson plans. Provides directions of use of AAC systems and AT to teachers and staff as needed.	systems and AT within lesson plans.		communication.
5.4: Uses strategies to enhance language development and communication skills of individuals with exceptionalities (1.000, 10%) CEC-INI-2012.5.4	Uses strategies to enhance math vocabulary, language/symbol development and includes partner and group work to enhance communication skills of individuals with exceptionalities.	Uses strategies to enhance math vocabulary, language/symbol development and communication skills of individuals with exceptionalities.	Uses strategies to enhance math vocabulary and symbol development of individuals with exceptionalities.	Uses strategies to enhance math vocabulary of individuals with exceptionalities.
5.5: Develops and implements a variety of education and transition plans for individuals with exceptionalities across a wide range of settings and different learning experiences in collaboration with individuals, families, and teams. (1.000, 10%) CEC-INI-2012.5.5	Develops and implements a variety of education and transition plans for individuals with exceptionalities across a wide range of settings and different learning experiences by: Developing detailed math unit including five daily lesson plans that demonstrate scope and sequence of educational activities and learning over time including essential data collection points.	Develops and implements a variety of education and transition plans for individuals with exceptionalities across a wide range of settings and different learning experiences by: Developing a math unit with five daily lesson plans that demonstrate scope and sequence of educational activities and learning over time.	Develops a math unit with five lesson plans that are brief and lack detail and logical flow of activities over time.	Develops a math unit; however, the five daily lesson plans are brief, lack detail, and do not demonstrate scope and sequencing of activities over time.
5.6: Teaches to mastery and promotes generalization of learning. (1.000, 10%) CEC-INI-2012.5.6	Teaches to mastery and promotes generalization of learning through real life math problems and group work.	Teaches to mastery and promotes generalization of learning through real life math problems.	Teaches the math unit as close to mastery as possible.	Teaches the math unit lessons sequentially without daily checks for mastery.
5.7: Teaches cross-disciplinary knowledge and skills such as	Consistently teaches cross-disciplinary knowledge and skills such as critical thinking and problem solving by:	Teaches cross-disciplinary knowledge and skills such as critical thinking and problem solving by: Asking students more	Typically asks student one type of question (e.g., open-ended, close-ended, comprehension, knowledge-based,	Asks very few, if any questions of students for the purposes of checking for understanding and to extending newly

critical thinking and problem solving to individuals with exceptionalities (1.000, 10%) CEC-INI-2012.5.7	Asking students many different types of questions (e.g., open-ended, close-ended, comprehension, knowledge-based, etc.) during the lesson observation. Having students participate in multiple types of activities (e.g., pencil-paper tasks, cooperative tasks, performance-based tasks, etc.) to practice or extend newly learned or emerging skills.	than one type of question (e.g., open-ended, close-ended, comprehension, knowledge-based, etc.) during the lesson observation. Having students participate in more than one type of activity (e.g., pencil-paper tasks, cooperative tasks, performance-based tasks, etc.) to practice or extend newly learned or emerging skills.	etc.). Provides one type of activity (e.g., pencil-paper tasks, cooperative tasks, performance-based tasks, etc.) to practice or extend newly learned or emerging skills.	learned or emerging skills. Provides limited time for an activity for students to practice or extend learning.

EDSE 625 Math Unit -- Reflection and Writing Conventions Rubric

	Exceeding Expectations (4.000 pts)	**Meeting Expectations** (3.000 pts)	**Developing** (2.000 pts)	**Emerging** (1.000 pt)
Self Reflection (1.000, 33%)	Recognizes all areas of the math unit that needs improvement and has noted the trouble spots in writing on their lesson plans. Creates a list of specific skills to improve their teaching correlated to how it may improve their students' post-assessment score. Adjusts their lessons daily to incorporate new strategies.	Recognizes many areas of the math unit that need improvement and has noted the trouble spots in writing on their lesson plans. Creates a list of specific skills to improve their teaching correlated to how it may improve their students' post-assessment scores.	Recognizes many areas of the math unit that needs to improve, but is unsure what would improve their students' learning. Have some ideas on how to improve their teaching, such as vary the pacing of the lesson, be more positive, and provide oral and written directions, etc.	Recognizes some areas of the math unit that needs to improve, but is unsure what would improve their teaching skills and their students' learning.
Written Communicatior (1.000, 33%)	The writing and pictures are clear and concise. Any special educator would easily understand and be able to implement the math unit lessons in multiple settings.	The writing and pictures are clear and understandable. A new special education teacher would frequently understand the math unit lessons and be able to implement them.	Most of the math unit lessons are comprehensible, but some directions require interpretation.	The math unit lessons are incomprehensible even after repeated readings.
Written Mechanics (1.000, 33%)	Writing mechanics, punctuation, and spelling are excellent (very few to no errors) throughout entire math unit lessons.	The math unit lessons have a few minor writing, grammatical or spelling errors, but the errors do not significantly interfere with comprehension of the math unit lessons.	The math unit lessons have some major writing, grammatical and spelling errors. Some of these errors interfere with comprehension of the math unit lessons.	The math unit lessons have many writing, grammatical, and spelling errors. The mechanical errors are to such a degree that they seriously interfere with comprehension

				and intent of the math unit lessons.