

Syllabus for TELLIT: Math Cognitive Learning Environment

Welcome

This course will help you learn how to address the cognitive needs of English Language Learners (ELL students). The Cognitive Learning Environment is one that relates to or involves conscious mental activities for students such as thinking, understanding, learning, and remembering in an instructional setting, such as a classroom. During this course, you will view video segments of mathematics teachers using effective strategies that enhance mathematics instruction and promote academic achievement for ELL students. You will have an opportunity to build a repertoire of instructional skills and resources that will have a positive impact on the progress and performance of your students. You may earn 2 CPE credits for this course.

1. Course Overview

In this lesson, you will review information about the course, course objectives, and a brief tutorial on navigating course activities. In addition, you will learn about:

- Second Language Acquisition for ELL students
- Use of Graphic Organizers with ELL students in math
- Levels of English Proficiency and the Texas English Language Proficiency Assessment System (TELPAS)
- Decision-making for instruction and assessment that are developmentally and linguistically appropriate for ELL students
- Key components of the Affective Learning Environment for ELL students

2. Know Your Students

In this lesson, you will learn about the significance of getting to know ELL students. You will:

- Reflect on instructional techniques for math that will help students who do not speak English
- Review differentiated instruction and progress monitoring for ELL students
- Match language objectives to content objectives for math

3. Establish Clear Objectives

In this lesson, you will review information about establishing clear content and language objectives for ELL students. You will learn about:

- Developing content and language objectives that are “student-friendly”
- Using objectives with students throughout the lesson
- Displaying, discussing, supporting, and assessing objectives

4. Build Background Knowledge of an ELL Student

In this lesson, you will learn about the significance of building background knowledge or accessing prior learning. You will review strategies for:

- Building background knowledge of ELL students
- Connecting students’ background knowledge to content

5. Modeling for Students

In this lesson, you will learn about using the Teacher-Group-Student (TGS) approach for Modeling with ELL students. You will review:

- The three key steps of the TGS approach
- Specific purposes and characteristics of each step in the TGS approach

6. Cooperative Groups and Using Hands-On Materials

In this lesson, you will review how to use cooperative grouping and hands-on materials during instruction for ELL students. You will learn about:

- Benefits of cooperative grouping
- Ways to use math manipulatives

7. Sharing and Supporting Multiple Solution Paths

In this lesson, you will learn about sharing and supporting multiple solution paths to math problems. You will review:

- Ways to support multiple solution paths during instruction
- How ELL students benefit from multiple solution paths
- An example of supporting multiple solutions paths for creating sample spaces (Math TEK 7.10A)

8. Course Conclusion - Improving Instruction for ELL Students in Math

In this lesson, you will briefly review key components of the Cognitive Learning Environment. In addition, you will:

- Review the significance of using self-assessments with ELL students
- Complete your own self-assessment activity

Review for Course Quiz

The purpose of this review activity is to prepare you to successfully complete the course quiz that is available from the Epsilon course menu, located on the left-hand side of your browser window.

Helpful Tips

The following tips will help you navigate this online course:

- For animated activities, click the arrow button to continue the animation.
- Check the additional materials section for transcripts, handouts, and other resources.
- For videos, use the controller bar to fast forward or rewind. To turn captions on or off, click the speech bubble icon.
- Click the Previous or Next buttons to move from one section of the course to another.