

Cognitively Guided Instruction Math



Course Syllabus for K-12 Teachers



What You Will Learn

This 1-credit online course provides an introduction to Cognitively Guided Instruction (CGI) and how to integrate it into teaching mathematics in PreK-12.

Teacher Comment

"This course provided me with a more in-depth look at what the foundational ideas are for CGI. Furthermore, I was able to really understand what Cognitively Guided Instruction is, what it looks like, and how it should be executed."

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Contact Us

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COURSE SYLLABUS

Cognitively Guided Instruction Math

Number of Credits: 1 Credit

Course Objectives

- Learn to define CGI
- Explain the rationale of CGI and why it should be used
- Be able to practice CGI in the classroom to meet diverse learning needs
 - learn how to listen to students
 - practice understanding students' mathematical thinking
 - practice guiding students to build upon their own thinking

Course Overview

This is an introductory course on a research based professional development program for teaching mathematics in elementary schools. This program seeks to enhance an instructor's ability to implement any mathematical curriculum. As a teaching professional yourself, you will learn how to master teaching mathematics by being taught how to listen to your students, understand your students' thinking, and provide support for your students' mathematical learning. This course will define CGI Math and the benefits of using it. You will be guided in your first steps of implementing CGI in your own class, in alignment with Common Core State Standards. Through CGI Math, participants will learn how to better plan for mathematical activities in their classroom and enhance their mathematical instruction.

Goal: Participants will learn how to enhance their instruction in math by learning from their students and fellow teachers. They will practice bringing CGI math into their classrooms to make mathematical learning more engaging and more effective. Participants will also find way to assess their students by aligning CGI concepts with Common Core Standards.

Course Outline

Unit 1: An Overview of CGI Math (where it came from and how it is doing) What is CGI?

Unit 2: Example of CGI Math (Activities, videos and examples)

Unit 3: Why use it? (Examples of its success)

Unit 4: How can we use it? (Video examples of teachers and student interactions using CGI)

Unit 5: Implement CGI Math (Provide you with activities you can bring to your students, colleagues or family members to familiarize you with how to implement CGI Math)

Unit 6: CGI and CCSS (Articles on how they compare and select a matching point to discuss on the forum)

Final: Presentation on CGI (What have you learned and what are you planning to do with this information?)

Description of Activities

For each module please expect the following activities:

- Read through the lesson/session contents (including articles) and watch videos
- Take a short quiz on the material presented
- Complete a written assignment with open-ended responses
- Post your written responses on a discussion forum for interaction with others

Bibliography/Course Content References

Carpenter, Thomas P., et al. *Children's Mathematics: Cognitively Guided Instruction*. Heinemann, 2015.