



**2023**  
**ANNUAL MEETING  
& EXPOSITION**  
Oct. 25-28, Washington, DC

# Exploring the Challenges of Culturally Relevant Pedagogy Using a Family Pizza Problem



NCTM 2023 Annual Meeting, Washington, D.C.

Dr. Enrique Ortiz

[Enrique.Ortiz@ucf.edu](mailto:Enrique.Ortiz@ucf.edu)

School of Teacher Education

College of Community Innovation and Education

University of Central Florida

## - Culturally Relevant Pedagogy

- It is a term created by Gloria Ladson-Billings (1994) to describe “a pedagogy that
  - **empowers** students **intellectually, socially, emotionally, and politically**
  - by using **cultural referents** to impart knowledge, skills, and attitudes.”
- Participating in culturally relevant teaching essentially means that teachers
  - create a **bridge** between students’ home and school life,
  - while still meeting the expectations of the district and state curricular requirements.
- It utilizes the **backgrounds, knowledge, and experiences** of the students to inform the teacher’s lessons and methodology.
- It assumes that **culture** is central to student learning.
- It recognizes, respect, and uses students’ identities and backgrounds as meaningful sources.



# The Practice of Culturally Responsive Teaching



© 2017 Center for Culturally Responsive Practices and Oregon Teacher Pathway Programs at Eastern Oregon University. Adapted from the work of Gay (2010), Brown-Jeffy and Cooper (2011) and written by Lubbes (2014).



#NCTMDC23



**2023**  
**ANNUAL MEETING & EXPOSITION**

## - Pedagogy

- It encompasses the theoretical (learning theory like behaviorism or constructivism) or interpretive framework (research-based practices), or philosophical values on which I stand as a teacher (why?).
- It may provide the lens through which I construct, conduct, reflect (how?) on my teaching (what?).
- It builds who I am as a teacher (teacher identity) (who?), and I come back to it again and again (when?).
- We may consider or may have considered **Culturally Relevant Pedagogy** as the pedagogical framework.

# - Mathematics Identity

- The dispositions and deeply held beliefs that students develop about their ability to participate and perform effectively in mathematics contexts and to use mathematics in powerful ways across the contexts of their lives.

## Reference

Aguirre, J., Mayfield-Ingram, K., & Martin, D. B. (2013). The Impact of Identity in K-8 Mathematics Learning and Teaching: Rethinking Equity-based Practices, p. 14.

<https://pubs.nctm.org/display/book/9780873538565/9780873538565.xml>



# General Questions to Keep in Mind:

- How does or could culturally relevant pedagogy look like in my classroom?
- How will culturally relevant methods and strategies affect or will affect my teaching, lesson planning, learning environment?
- What are the benefits for my students (pre-service teachers) if they learn and know these methods and strategies?

# A. My Family Pizza Sharing Challenge (5 minutes)

- Assume that your family goes out to eat pizza at a restaurant.
- As a family, you buy pizza to share between the members of your family in attendance.
  1. Who will most likely be there? How many members of your family would be present for this treat? Who are they?
  2. Considering the people who will attend this occasion, what size(s) of pizza and how many of them would your family buy?  
\_\_\_\_ small      \_\_\_\_ medium      \_\_\_\_ large
  3. How would you share the pizza in a fair manner?  
Explain the considerations that you made in your decision.
  4. What considerations did you take into account in your decision?

## B. Considerations Related to Culturally Relevant Pedagogy

- Would you make any changes to the Family Pizza Sharing Challenge? Explain
- What issues do you anticipate?
  - As a K-8 student:
  - As a K-8 teacher:
- Are there any culturally relevant challenges to My Family Pizza Sharing Challenge? Explain.
- What should teachers do in this situation—continue using the problem with visible discomfort or seek an alternative?
- Discussion of your responses to the **My Family Pizza Sharing Challenge** and culturally relevant pedagogical challenges.



Are any of these 8 competencies addressed by the Family Pizza Challenge ?

**Reference:**

New America (n.d.). *Culturally Responsive Education Resources for Federal, State, and Local Stakeholders*.

<https://www.newamerica.org/education-policy/collections/culturally-responsive-education/>

**#NCTMDC23**

**Figure 1 | Eight Competencies for Culturally Responsive Teaching**



# General Question to Keep in Mind: We will come back to this questions at the end:

- How does or could culturally relevant pedagogy look like in my classroom?
- How will culturally relevant methods and strategies affect or will affect my teaching, lesson planning, learning environment?
- What are the benefits for my students (pre-service teachers) if they learn and know these methods and strategies?



# 5 CULTURALLY - RESPONSIVE INSTRUCTIONAL STRATEGIES

## 1 GET TO KNOW YOUR STUDENTS

One strategy to create a more culturally-responsive classroom is getting to know your students. The more you know about your students, the better.

## 2 INCORPORATE REAL-WORLD LEARNING SCENARIOS

By creating activities that present problems that students can relate to, you're linking to student interests and allowing them the opportunity to use their own cultural awareness to solve the problem.

## 3 USE LEARNING STATIONS

With learning stations, you can provide a variety of materials that are differentiated for students.

## 4 INCLUDE GAMES IN LESSONS

Gamifying learning is a good way to motivate students of all cultures. Students love earning badges or trying to be the top scorer. Setting goals or specific tasks and offering rewards can inspire students and give them what they need.

## 5 BRING IN GUEST SPEAKERS

Inviting diverse speakers to speak to your students and share their knowledge is another strategy for creating a culturally-responsive classroom. Students may be more engaged and motivated if they share a culture with the guest speaker.

## Reference:

Benner, D. (2018, October 15). Five Culturally-Responsive Instructional Strategies. TechNotes.  
<https://blog.tcea.org/culturally-responsive-strategies/>

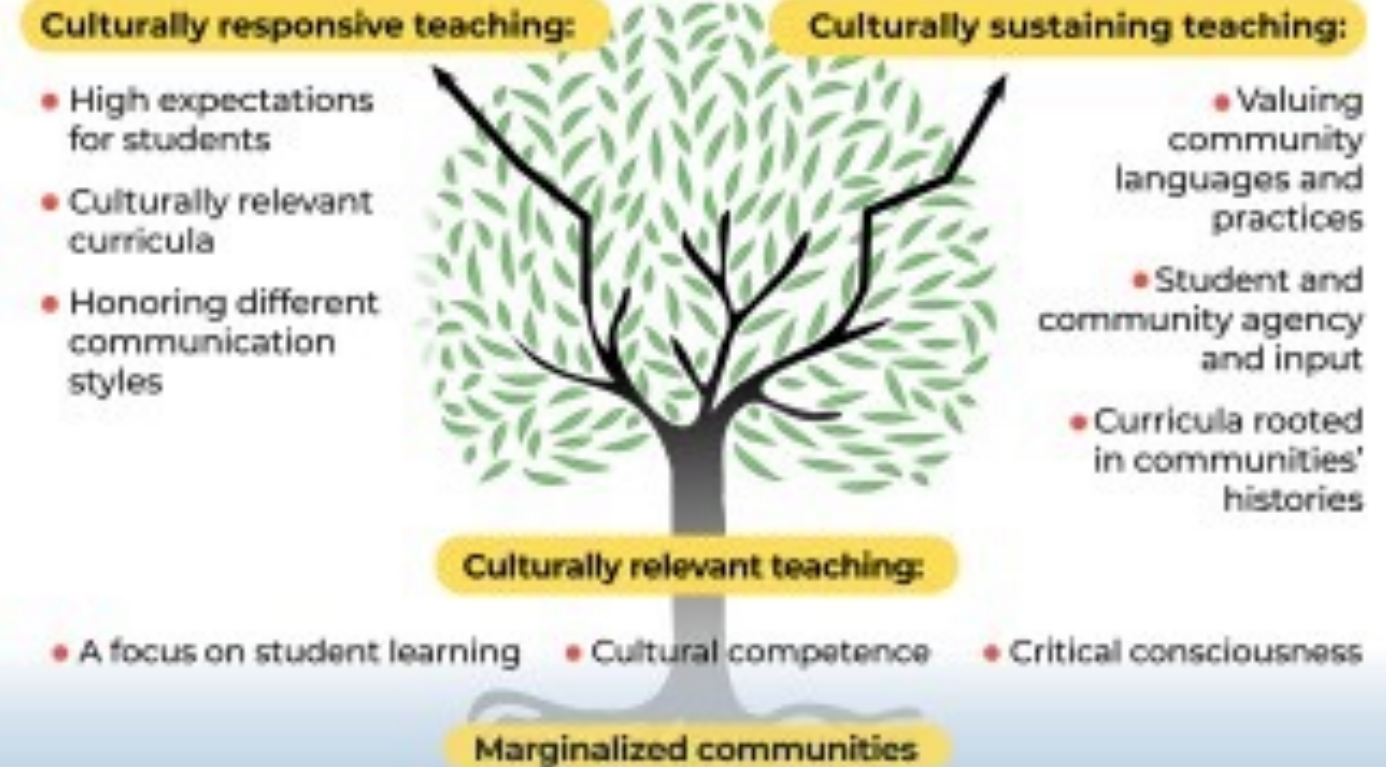


- This diagram shows the place of Culturally Relevant Pedagogy within other pedagogical frameworks.

#NCTMDC23

## Asset-Based Pedagogies

These teaching methods and practices focus on the strengths of all students and value diversity in culture, language, and other traits. Here are some of the most commonly known terms in this approach to teaching and their key components.



“What lies beneath the surface is what the traditional educational system has ignored: the rich wealth of knowledge of those communities, their ways of thinking and being in the world, the languages they speak, and their ways with words.”

—Tedd Beam-Conroy, University of Washington associate teaching professor

# Final Thoughts

- If you want to achieve lasting change, I have learned through my personal and professional experiences that you have to make learning experiences communal, and
  - if you want to make change relevant and impactful, you have to make learning personal.
- However, if you want significant change, you need to make learning both communal and personal.

**#NCTMDC23**

(Enrique Ortiz, work in progress)



**2023**  
**ANNUAL MEETING  
& EXPOSITION**

**Thank you for your participation!**

**Enrique Ortiz**

**[Enrique.Ortiz@ucf.edu](mailto:Enrique.Ortiz@ucf.edu)**

**School of Teacher Education**

**College of Community Innovation and Education**

**University of Central Florida**

**#NCTMDC23**



**2023**  
**ANNUAL MEETING  
& EXPOSITION**