

GSU-Perimeter College Mathematics Conference
Back to the Future: Face-to-face and Beyond
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The Pandemic Pause: Re-connecting with Students in Mathematics Classrooms

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What is the Context?

The COVID-19 Pandemic pause—the moment of separation for all—is beyond us (relatively), and more students are beginning their return to the face-to-face classroom settings (Jansen, 2020). This return to the face-to-face classroom highlights ways the pandemic changed learning and teaching as faculty and students knew it. In this discussion, we examine some of these changes, and possible ways mathematics educators can increase future classroom engagement.

How do we incorporate more student engagement in our mathematics classrooms?

Pandemic Pause

The moment....

- Every faculty & student became online learners and teachers
- That “paused” mathematics “learning” for students
- That provided society (influencers) an ability to increase the “claim” that a higher education is no longer valued for people to be effective members of society
- Our lived experiences in HE shifted—How did this moment shift for you?

Pandemic Changes

“The pandemic has, in more ways than one, significantly affected learning and school operations” (Zhao, 2022, p. 558).

Student Profile:

- The larger population of students entering higher institutions are cynical, brand/marketing savvy, receptive, and social media junkies.
- Lacks focus because so many other entities are vying for their attention and time.
- Awareness of their social-emotional well-being, attitudes towards learning, physical & psychological development

Faculty Profile:

- Awareness of our social-emotional well-being, attitudes towards working, physical & psychological harmony
- Opportunity to adopt new teaching modality / delivery (hybrid)
- Learn a new student profile, yet again.

Institutional Profile:

- Fewer students' physical attendance and flexible registration guidelines
- Increase use of technology fill to in the gap
- Retirements, administrative changes, “*quiet-quitting*”

What other changes have you noticed?

Quiet Quitting

“Quiet quitting refers to doing only the minimum required work and not going above and beyond. It is an attitudinal shift that has been documented in a number of areas, including the workplace, education, and academia (Nseir, 2023).

Students’ Great Disengagement

- Attitudinal shift toward education
- Do the bare minimum
- Loneliness, anxiety,
- Prioritize mental health and well-being
- Slow down or become intentional with their time.

A Call for Change

The Pandemic Pause provided educators the opportunity to re-do mathematics teaching and learning not only in content delivery modality, but also in fostering student engagement.

Questions to ponder as we go *“Back to the Future.”*

- What old preconceptions do faculty members have about students who attend college today?
- What mindset about teaching mathematics can we intentionally try to adjust?
- What kinds of transformational changes can a faculty make in their mathematics classrooms?
- How do faculty meet today’s students where they are?
- How do we engage with students in our mathematics classroom post-pandemic ?

What Can We Do, Where?

“...direct-instruction style of remediation could damage student’s curiosity and active engagement with learning” (Zhao, 2022, p. 559)

Possible ways we can take advantage is in our co-requisite classes.

- Capitalize on co-requisite classroom times
- Incorporate compulsory study time during Co-requisite classes (instead of faculty free time)
- Create intentional Peer-Mentoring among student in the classroom
- Use Mathematics games to engage students in learning the content in class
- Parking Lot talks
- Keep updates on incoming student profile:
 - Every 5 years, read literature about students entering college
 - K-12 mathematics trends, changes, etc.
- “Reel”-Mathematics (Movie clips to teach and discuss specific topics)

Any other suggestions?

Co-requisite Class Example

“Reel”— Mathematics: Netflix and Maths
Use Co-requisite class time to creatively
reinforce concepts or topics.

[The Ice Road: Netflix Video](#)

(Back to the Future was not on Netflix)

Where is the mathematics?

How can this clip generate test questions?

How can we incorporate this clip into Math
1001, 1111, 1113, 1401, 2112?

Co-requisite Classroom Talking Points (Connections Projects)

Our students are looking for mathematics connections, projects, classroom delivery allowing them to see beyond just direct-instruction or procedural aspects of mathematics.

- How can we use the Stock Exchange to introduce students to incorporating this platform in their financial portfolio, but also the ability to recognize patterns, modeling, estimation, predictions and trends?
- What is the mathematics behind Instagram / Tik-tok (how is it so addictive?)
- How is mathematics connected to other disciplines: Art Math/Astronomy Math/Business Math/Engineering Math/Finance Math/Physics Math/ Music Math
- How does mathematics fit into their professional areas, and ways we help students creatively make the connection to see the wide range of mathematics beyond their classroom learning but throughout their career lifetime?

Any other ideas?

Thank You!!!!.

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