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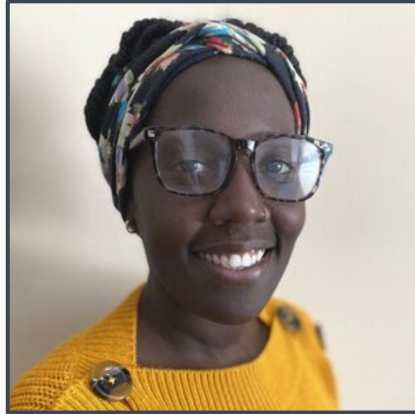


Embracing Cognitive Diversity & the Science of Learning

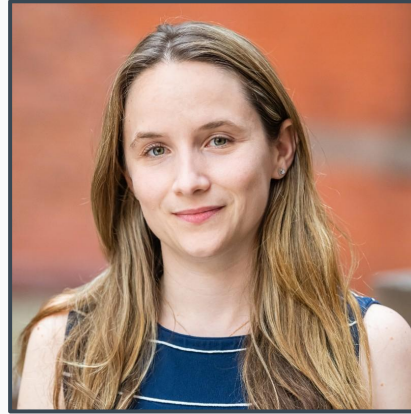
Welcome! Please complete the launched poll upon arrival!



Emily Dia
Partnerships Manager
MCP



Debbie Menard
Program Manager
MCP

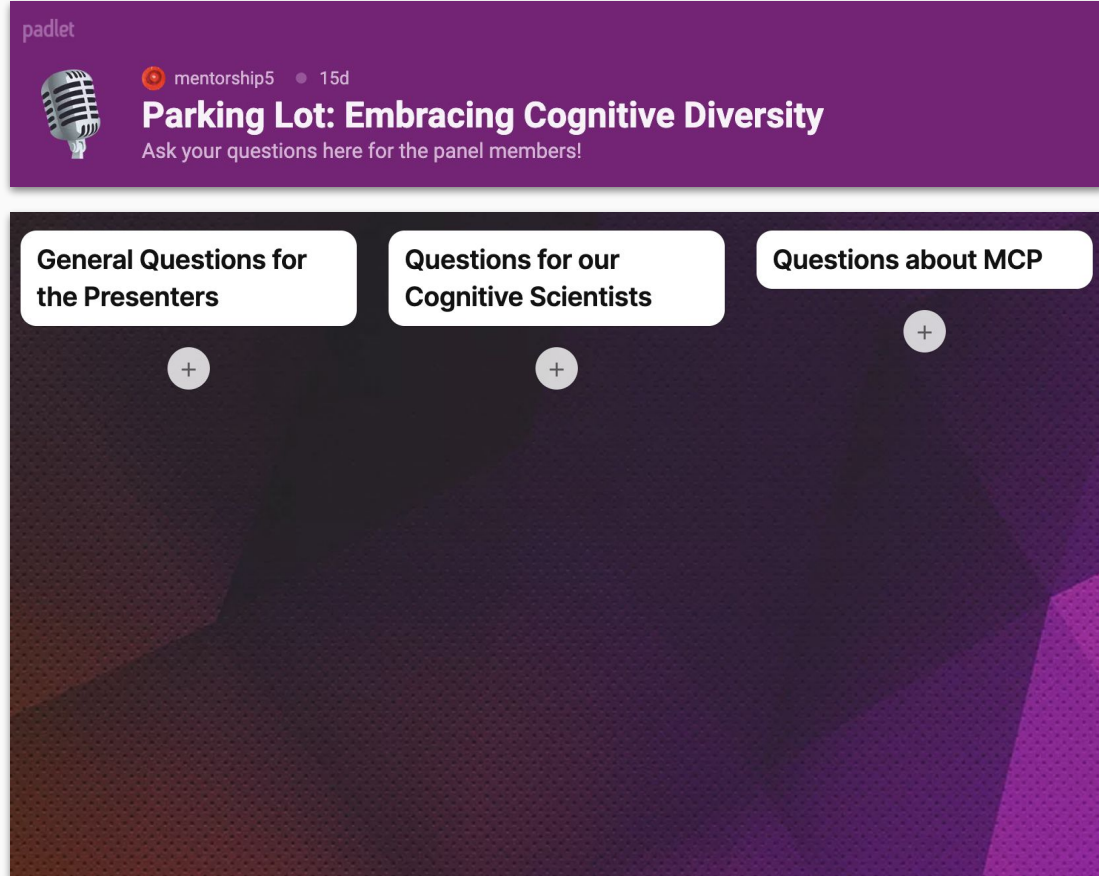


Susanna Brock
Director of Research &
Development
COGx



Samantha du Preez
Director of Marketing &
Community Engagement
MCP

- Zoom Reminders
- Questions → Padlet
- Post-Webinar Follow-up
 - Recording & Slides
 - Generate a certificate

A screenshot of a Padlet board. The top header is purple and contains the text 'padlet', a microphone icon, 'mentorship5', '15d', and the title 'Parking Lot: Embracing Cognitive Diversity'. Below the title is the instruction 'Ask your questions here for the panel members!'. The main content area is dark purple and features three white rounded rectangular buttons: 'General Questions for the Presenters', 'Questions for our Cognitive Scientists', and 'Questions about MCP'. Each button has a small white circle with a plus sign below it.



Agenda:

1. Welcome & Introductions
2. COGx + MCP
3. The Science of Learning
4. Strategies to Support all Learners
5. Questions & next steps

Why is the science of learning important for students?

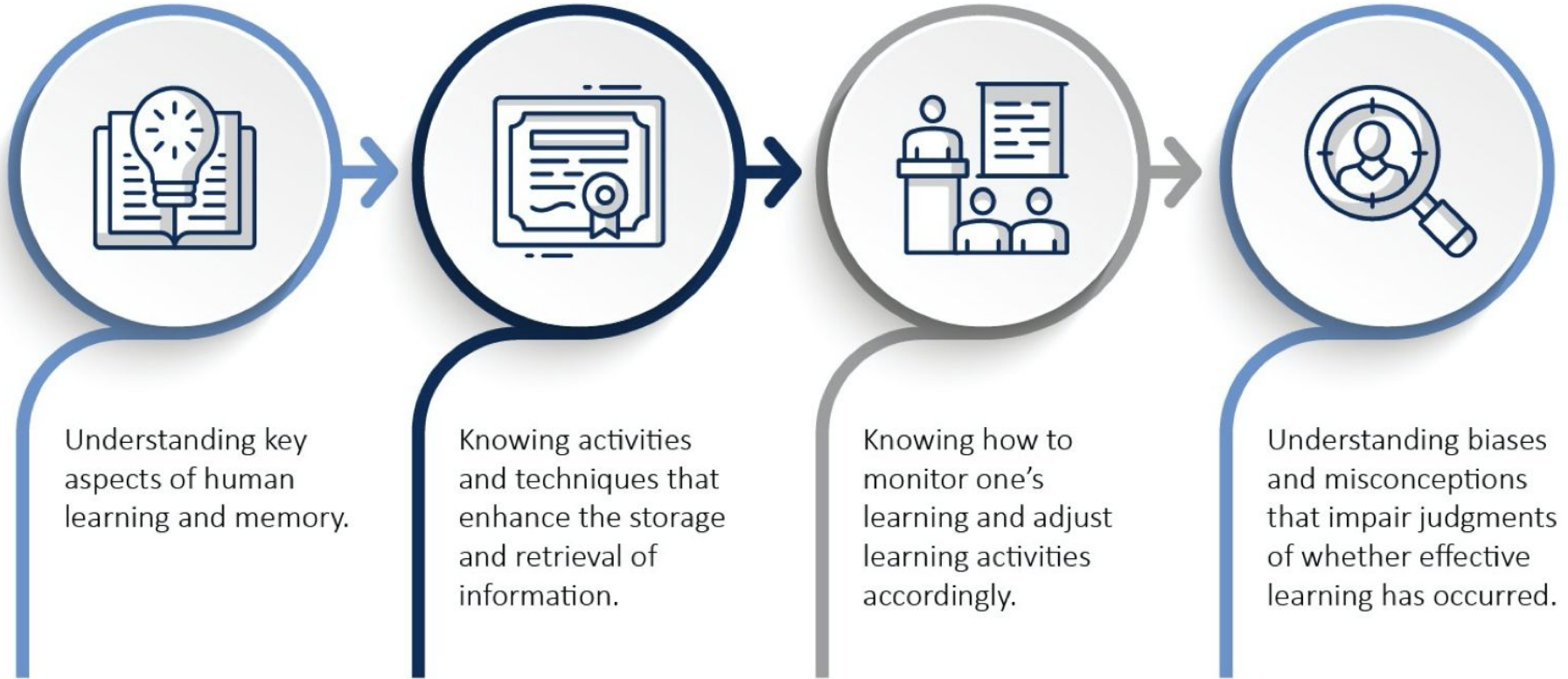


Teaching



Learning

Why is the science of learning important for students?



The Modern Classrooms Project empowers educators to **build classrooms that respond to every student's needs**. We lead a **movement of educators** in implementing a self-paced, mastery-based instructional model that **leverages technology to foster human connection, authentic learning, and social-emotional growth**.

Every day, in every classroom, **every student will be appropriately challenged and supported**.

Through our personalized training programs, we empower educators to implement our research-backed instructional model:

Blended Instruction

Students access content through teacher-created videos.



Self-Paced Structures

Students control the pace of their own learning.



Mastery-Based Learning

Students progress from one lesson to the next when they demonstrate mastery.



Blended Instruction

Self Determination Theory of Motivation

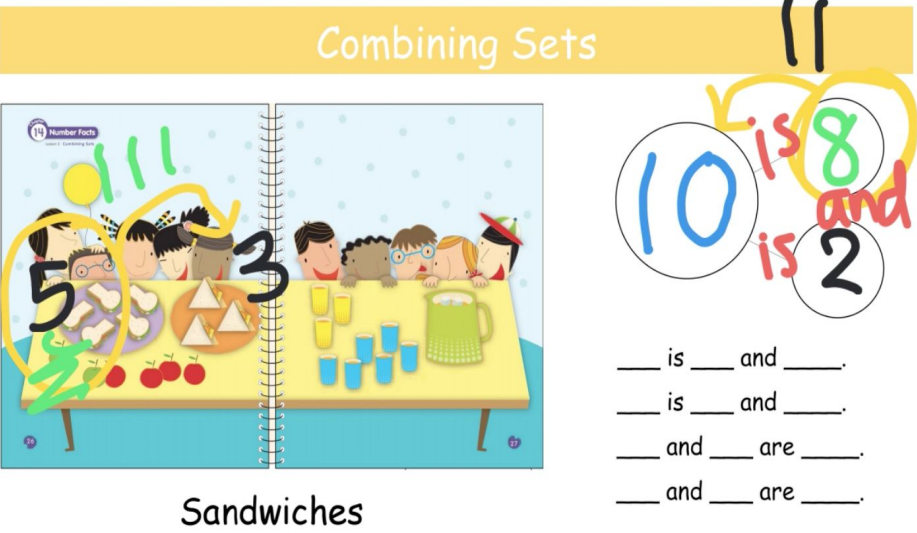
- Competence: student engaged in comfortable challenge
- Autonomy: student decides pace
- Relatedness: student builds relationship with teacher and peers



Blended Instruction

In Modern Classrooms:

- Teachers **replace whole-class lectures** with teacher-created **instructional videos & resources**
- Technology is a **tool to support the needs of all students**
 - Unrestricted access
 - Learner autonomy



Combining Sets

Number Facts

Sandwiches

10 is 8 and 2

___ is ___ and ___.

___ is ___ and ___.

___ and ___ are ___.

___ and ___ are ___.

02:52 09:07

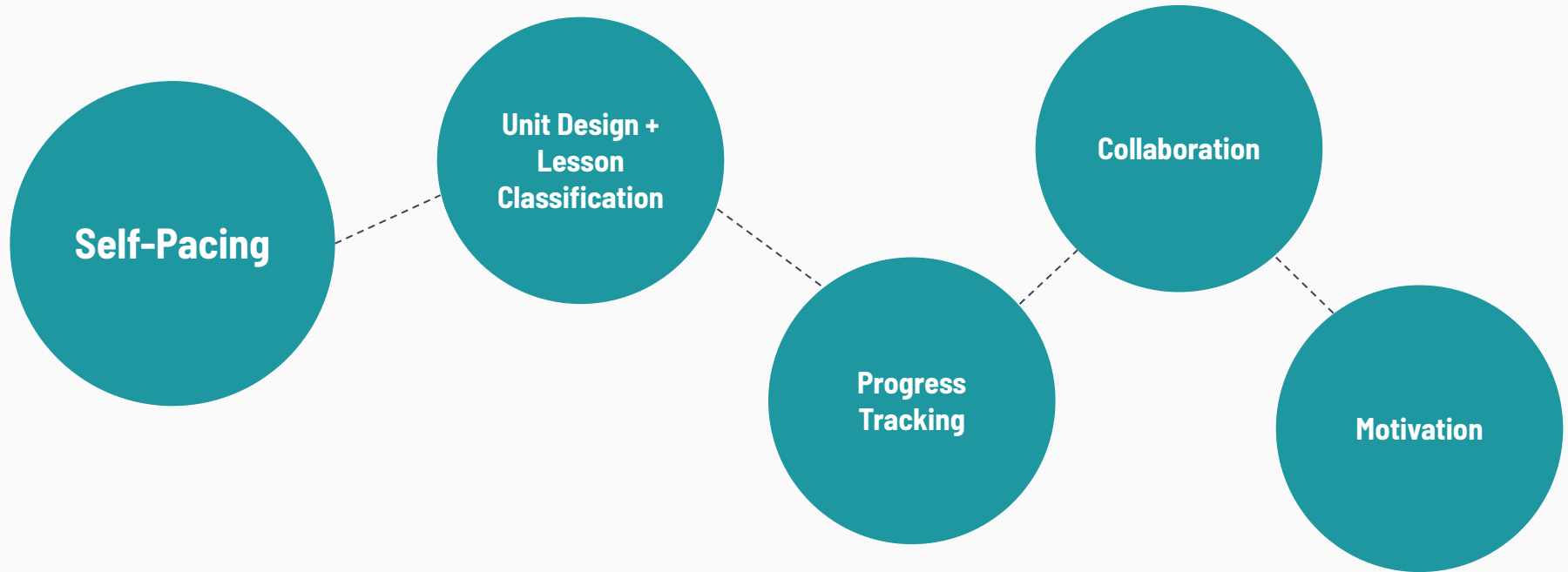
Self-Paced Structure

Information Processing Limitations

- Attention: the ability to direct and maintain focus for a given period
- Processing Speed: a funnel through which information has to pass
- Working Memory: ability to hold onto and manipulate information



Self-Paced Structure



Mastery-Based Learning

To develop **mastery**, students must:

- Acquire component skills,
- Practice integrating them, and
- Know when to apply what they have learned

*Students are **more** motivated by **mastery goals** instead of performance goals.*



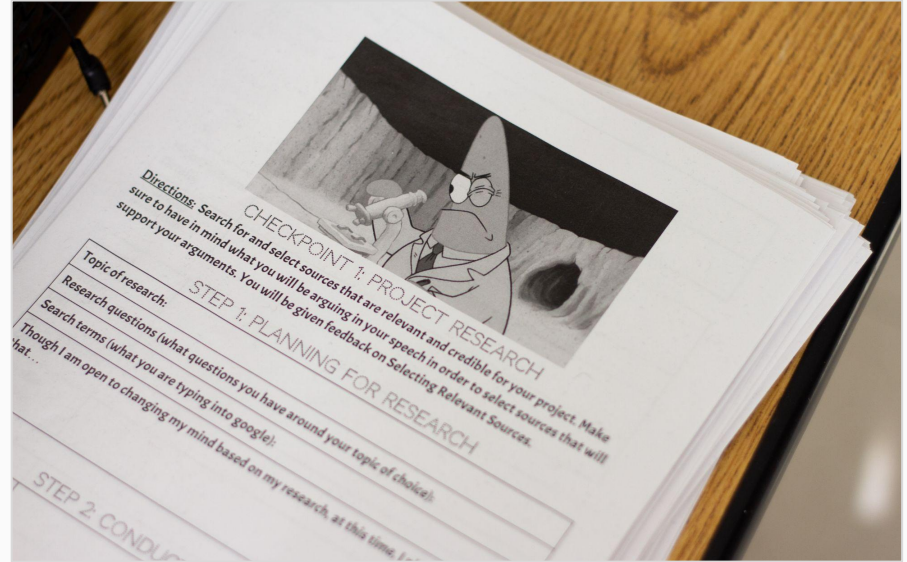
Deliberate practice towards a learning goal and **constructive feedback** inform each other in a cycle of performance improvement



Mastery-Based Learning

In Modern Classrooms:

- “Mastery checks” are the gateway to progress from lesson to lesson
- Criteria for mastery is clearly defined
- Students experience the PROCESS of mastery:
 - **Revision**, guided by personalized feedback
 - **Reassessment** when students are ready
 - **Reflection**, to help students grow



In a typical classroom...

- Instruction **revolves around the teacher** at the front of the room
- Students only have access to instruction **during class**
- **Technology** is viewed as a novelty or a distraction

Embracing Cognitive Science Means...

- Classrooms are **differentiated, and student-centered**
- Students have **unrestricted access to learning**
- Technology is a tool to **build relationships and maximize personalized learning**

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Where can you start start now?



Strategy 1: Support Motivation with Progress Trackers

Personal Progress Trackers

- Encourage students to take ownership their progress
- Help students plan and stay organized



Cold War
Objective calendar
UNIT ASSESSMENT: Seminar, Quiz, Essay

LESSONS 6.1 – 6.3 MUST BE COMPLETED BY THURS, FEB 7;
SEMINAR (6.4) IS IN-CLASS ON FEB. 8 (A Day)/FEB. 11 (B Day)
LESSONS 6.5-6.7 MUST BE COMPLETED BY TUES, FEB 26
QUIZ (6.8) IS IN-CLASS ON FEB. 27 (A Day)/FEB. 28 (B Day)
LESSONS 6.9 – 6.13 BY ESSAY DUE ON MON, MARCH 16

Lesson	Target date	Objective	Warm-up questions	Done?
6.1 <i>Intro to the Cold War</i>	Thurs, Jan 31 (A day)/ Fri, Feb 1 (B day)	I can analyze primary documents, key vocabulary and Cold War-era songs in order to articulate my questions about the Cold War.	1. List three famous rivalries (intense competitions) you can think of. 2. If someone is being "cold" to you, they are not fighting directly with you, but are being unfriendly and perhaps talking about you to others. Describe a time this happened to you.	<input type="radio"/> notes <input type="radio"/> CW <input type="radio"/> ExTick
6.2 <i>Post-war conferences</i>	Mon, Feb 4 (A day)/ Tues, Feb 5 (B day)	I can analyze primary documents from post-WWII conferences between Allied Powers in order to explain the origins of the Cold War in expanded sentences.	1. Explain different ways that leaders can come to power in a country. 2. Identify three ways the USSR and the USA were different after World War II.	<input type="radio"/> notes <input type="radio"/> CW <input type="radio"/> ExTick
6.3 <i>Iron Curtain speech & Stalin's reply</i>	Wed, Feb 6 (A day)/ Thurs, Feb 7 (B day)	I can analyze Winston Churchill's Iron Curtain speech in order to explain, on a quote explication chart, who Churchill felt was responsible for the Cold War.	1. The Cold War was a division between the "East" and the "West". What are divisions between people that affect American society today? For example, one division is rich and poor. Name three more. 2. What were characteristics of the USSR after World War II? Would you have wanted to live in post-war USSR? Why or why not?	<input type="radio"/> notes <input type="radio"/> CW <input type="radio"/> ExTick
6.4 SEMINAR	Fri, Feb 8 (A day)/ Mon, Feb 11 (B day)	I can listen, collaborate, and cite textual evidence from primary documents in order to argue who is responsible for the Cold War in a Paideia Seminar.	1. Think of a time someone said something about you that wasn't true— they didn't have any proof of what they were saying. What is the importance of evidence, or proof, when people make claims? 2. Spend the remaining time re-reading Winston Churchill's "Iron Curtain" speech and then Joseph Stalin's reply.	

Strategy 1: Support Motivation with Progress Trackers



Public Progress Trackers

- Identify the day's "target lesson"
- Support strategic, flexible grouping
 - Mini-lessons
 - 1-1 reteaching
 - Data-driven reteaching
- Create a culture of revision
- Foster collaboration
 - Co-thinkers
 - Lesson superstars

Target Lesson: 5.3

STUDENT	Lesson you're on
Dewayne	5.3
Rocquel	5.1
La'Niaya	5.2
Alexis	5.4
Myah	5.4
Jaelen	5.3
Marcus	5.3
Ryan	5.4
Imani	5.1
Arnett	5.3
Tyler	5.3

Monday, Jan. 6

STUDENT	Lesson you're on
Trinity	5.1
Jujuan	5.3
Brandone	5.4
Di'jon	5.3
Kamyah	5.1
Malik T.	5.4
Raven	5.2
Mahjae	5.2
Davon	5.3
Kayla	5.1

ORANGE= Ahead of pace!

GREEN= On pace

PURPLE= Revising

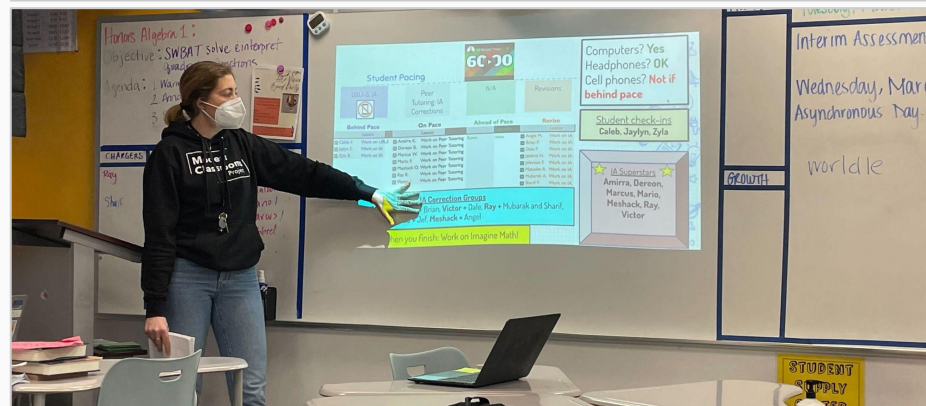
BLACK= Behind pace

SHOUT OUTS!

Alexis, Myah, Ryan, Arnett, Brandone, and Malik for coming to school Thursday & working hard!

REMINDERS

We only have two weeks left in Quarter 2! What will your final grade be?





Keep Learning About the Science of Learning

- Learning Is Emotional
 - Cognition and emotion are inextricably connected
- Foster Metacognition
 - Students' ability to reflect on their own learning is predictive of academic success

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Wanna Learn More?



Free Online Course



- ✓ Access to content and tutorials
- ✗ No assignments
- ✗ No feedback or coaching
- ✗ No certified credentials

40,000+ teachers enrolled in 2020/21

Virtual Mentorship Program



- ✓ Access to content and tutorials
- ✓ Feedback on all submitted assignments
- ✓ One-to-one coaching
- ✓ Certified credentials

100+ School/District Partnerships



Calendar options:

Session 1: ~~May 16 - June 19~~ (full!)

Session 2: June 13 - July 17

Session 3: July 11 - August 14

During our five week Summer Institute, educators will:

1. **Work one-on-one with our Expert Mentors** in the Modern Classrooms Project Virtual Mentorship Program
2. **Engage in live presentations** on blended instruction, self-paced learning structures, and mastery-based grading.
3. **Receive additional support** in subject-specific meet-ups, our private discussion board, and optional sessions.



**COGx's Program
Developing Sophisticated
Learners**

**provides online PD for
educators that teach how to
apply science-based strategies
to their teaching.**

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Your Questions



Final Thoughts

padlet



mentorship5 + 1 • 1m

Parking Lot: Embracing Cognitive Diversity + MCP Webinar

What is something still circling in your head?

What's something that "squared" with you? (i.e. that you agree with)

What are three key points you will take away?



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Thank you for joining us!



Additional Resources

- **Our Free Online Course:**
<http://learn.modernclassrooms.org>
- **Modern Classrooms Edutopia Videos:**
[Secondary + Elementary](#)
[Using Blended Learning to Teach Cursive](#)
- **Facebook Group:**
www.facebook.com/groups/modernclassrooms
- **The Modern Classrooms Podcast:**
<https://modernclassroomspodcast.fireside.fm/>

Virtual Mentorship Program Pricing



Program	Cost	Goals
Virtual Mentorship Program (VMP)	\$500 per Educator Additional fees for: <i>2 degree-granting credits (\$150)</i> <i>3 non-degree credits (\$200)</i>	Planning a Modern Classroom <ol style="list-style-type: none">1. Work one-on-one with an expert teacher mentor in our Virtual Mentorship Program2. Engage in three live sessions on blended instruction, self-paced structure and mastery-based grading3. Participate in optional live sessions on subject-specific guidance and best practices in personalized learning
Virtual Mentorship Program PLUS (VMP+)	\$1000 per Educator Additional fees for: <i>2 degree-granting credits (\$150)</i> <i>3 non-degree credits (\$200)</i>	Planning and Implementing a Modern Classroom <i>Includes everything in the Virtual Mentorship plus:</i> <ol style="list-style-type: none">1. Unrestricted access to Modern Classrooms experts for coaching calls throughout the school year2. Year-round webinars to support effective implementation3. Planning sessions for educators that pursue the Distinguished Modern Classrooms Educators (DMCEs) and Expert Mentors Credentials

This toolkit helps teachers understand the impacts that blended, self-paced, mastery-based practices have on students. **Here's what's included in the toolkit:**

- **A start-of-year survey:** Collect baseline data on student attitudes and beliefs.
- **A mid-year survey:** See how student attitudes and beliefs have changed over time!
- **A pre-filled analysis spreadsheet:** Charts are auto-generated using student data.

Data collected will not be shared with Modern Classrooms in any way. [Access the teacher research toolkit and watch our walk-through video.](#)

If you work directly with teachers, supporting their instructional shift to blended, self-paced, mastery-based learning, check this resource.

Built for instructional coaches who make frequent visits to classrooms, [this resource](#) can help you **support teachers at different levels of Modern Classroom implementation.**

Special Guidance for Instructional Coaches



We have supported several instructional coaches in our Virtual Mentorship Program, as they design blended, self-paced, mastery-based units and prepare to help teachers in their schools implement these principles across grade levels and disciplines. Here are a few suggestions we want to offer educators who coach classroom teachers in the Modern Classroom instructional model.

In the online course itself, instructional coaches have opted for submissions that are:

- student-facing unit to share as an exemplar with the teachers they support.
- teacher-facing professional development unit.
- student-facing unit that teaches or reviews companion skills (ex: math often used in a physics classroom or historical thinking skills used in a social studies classroom) that teachers or departments can reference throughout the year.

Many students need time to adjust to a self-paced and mastery-based classroom, and these early weeks of a new school year can be uncomfortable for classroom teachers. Students, particularly by the time they reach middle and high school, are often used to “completion and compliance” rather than engagement and mastery. The shift can take time and encouragement, but an overwhelming majority of teachers we train stick with this instructional model. To support your teachers in the first quarter