Dana Center
Mathematics
P A T H W A Y S

Are you interested in creating a student-centered learning environment that promotes effective student discourse?

Are you open to examining your own beliefs about effective teaching strategies?

Are you looking for a support group of peers and other mathematics education leaders?

Are you willing to try out new classroom techniques?

If you answered "yes" to any of these questions, we would like to invite you to participate in this professional learning opportunity sponsored by the Ohio Department of Higher Education:

FOCI Dana Center **Mathematics** P A T H W A Y S
Focused Online Collaborative Interactions

Series 1: Deepening Student Understanding
Promoting effective student discourse through active and collaborative learning

This introductory FOCI series consists of six sessions that explore the principles and strategies behind student-centered learning. Unlock the power of discourse and collaboration for your students. Analyze questioning techniques that facilitate mathematics sense making. Examine strategies for establishing and maintaining a safe and productive learning environment. Investigate assessment of students' individual and collaborative work and support students in self-assessment.

Series sessions are highly interactive and take place online via Zoom video conferencing technology – so there is no travel required to participate!

You'll work with a cohort of peers in large and small groups to learn together. Facilitators from the Charles A. Dana Center will guide each session and ensure that you have all the tools and support you need to apply your knowledge effectively in the classroom.

Dates and times:
Tuesdays, 3:00 – 5:00pm Eastern

August 27	September 24	October 22
September 10	October 8	November 12

See page 3 for descriptions of the six sessions. Attendance in all six is highly recommended.

Register now at https://forms.gle/9Bp1HwLjTSR12WPf7

What am I committing to?	
Actively participating in the full series of 6 sessions (12 total hours)	• Each session is 2 hours long and during each session we will use authentic situations to explore, struggle with, and make sense of pedagogical and content challenges. • Session delivery uses the video and audio features of *Zoom*. This technology enables us to converse "face-to-face" in real time in large and small groups, without the expense and hassle of traveling to a central location.
Preparing for each session and trying new ideas in your own classroom after each session	• *Prior to each session* you are expected to do a limited amount of preparation work, often a short reading, video viewing, document analysis, and/or personal reflection. • *After each session*, you commit to trying a technique or approach we discussed during the session.
Contributing to the large and small group discussions; supporting your peers on this learning journey	• Contribute in the large and small group discussions, bringing your own perspectives and prior experiences into the conversations. • Collegially engage in conversations and application activities focused on deepening student understanding through effective student discourse and collaboration.

What support will I get from the Dana Center?	
FOCI materials	• You will receive high quality, well-researched, and thoughtful materials for the entire series. All session materials – readings, reflections, handouts, and PowerPoints - will be provided. • You will also have access to recordings of the sessions so that you can review the content on your own.
Support from trained facilitators	• Dana Center curriculum and professional learning specialists will lead the sessions. These individuals are available to answer questions and provide support during and between the sessions. They can address content and application questions as well as technology issues (e.g. the Zoom platform).
Certificate of Completion	• You will receive a certificate of completion at the end of the series that may be submitted with tenure or promotional materials for your department. The topics and number of hours of professional learning you completed will be listed on the certificate.

Do I need any previous knowledge of active and collaborative learning to participate?
No previous knowledge is required! This series will provide an introduction to student-centered learning, effective student discourse, and collaboration. A sample of learning outcomes for each session in the series is given on the next page.

Series 1: Deepening Student Understanding
Promoting effective student discourse through active and collaborative learning

- **Session 1: Establishing a Culture of Student-Centered Learning**
  Participants will:
    o Establish a safe, participant-centered learning environment for the cohort.
    o Set goals for participation and growth during this professional learning series.
    o Examine the literature on the characteristics and benefits of student-centered learning.
    o Explore characteristics of a safe and effective active classroom culture.
- **Session 2: Promoting Discourse Through Multiple Problem-Solving Strategies**
  Participants will:
    o Examine the role of validating multiple problem-solving strategies in creating a learning culture.
    o Develop a short list of "pocket" questions that can be used to respond to various collaborative learning situations.
- **Session 3: Questioning Techniques to Promote Deep, Connected Learning**
  Participants will:
    o Discuss the role of questioning in producing and supporting active learning.
    o Develop questioning skills to facilitate mathematics sense making.
    o Explore the characteristics of connected learning.
    o Develop skills to identify and embed connections when lesson planning.
- **Session 4: Managing an Effective Student-Centered Learning Environment**
  Participants will:
    o Develop intervention skills that keep groups functioning and engaged in mathematical discussions.
    o Examine techniques for using collaboration to achieve closure.
    o Identify ways to use the challenges of collaboration as tools to move forward.
- **Session 5: Assessment in a Collaborative Classroom**
  Participants will:
    o Identify benefits and challenges of assessing group and individual performance in a collaborative setting.
    o Explore specific examples of assessment and self-assessment.
    o Learn to recognize and build on student strengths to promote confidence and enhance learning
- **Session 6: Establishing an Effective Environment on the First Day and Week**
  Participants will:
    o Examine how and when to use various collaborative structures.
    o Develop strategies for organizing groups that function and learn.
    o Explore effective routines for establishing and maintaining a student-centered active and collaborative classroom culture.