INNOVATION FOR INCLUSION IN EARLY EDUCATION

IHE Faculty Community of Practice: Discussion on Asynchronous/Online Teaching and Learning

March 4, 2026

Summary of Discussion:
The meeting focused on strategies for engaging students in asynchronous learning, particularly in STEM education. Dr. Alissa Lange and Dr. Amy Perry from East Tennessee State University shared their experiences with online professional development and course design. They discussed using photo essays and video recordings to make learning more interactive, as well as the importance of including multimedia elements like graphics and videos to enhance engagement. Participants also shared ideas, examples, and resources.

Reminder:
Next CoP meeting is on April 1, 2026, from 2-3 pm EST. Come prepared with dilemmas/challenges related to asynchronous online teaching practices related to early STEM and inclusion. The group will embark on a solutions-based problem-solving discussion.

STEMIE Resources:

1. Guide to Adaptations
2. Guide to Teaching Practices
3. **Microlessons:** Short lessons on specific topics related to early STEM and learning trajectories. Use one lesson or stack them to create a complete module.
    a. What are Learning Trajectories
    b. Observing Children's Thinking
    c. What Does Engaged STEM Learning Look Like?
    d. How do I Use Learning Trajectories?
4. Video Reflection Guides

STEMIE
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IDEAs that Work

5. **STEMIE YouTube Channel: Video Demonstrations and STEMIEFest Archived Videos:** Find video demonstrations of STEM at home and in the classroom and also archived videos where you could embed as mini lectures on a variety of STEM topics.
6. **Early Intervention Webinar Series (archived recordings):** Content related to infants and toddlers with disabilities in STEM. While practices are targeted for early intervention practitioners, they are also useful for other practitioners serving young children birth to two.
7. **Storybook Conversations resources: Curated booklists** and **Storybook Guides**
8. **Planning forms: All About Me** | **Action Plan & Reflection** (for early intervention/home) | **Child Activity Matrix** (center-based or home)
9. **Blog posts and podcasts:** The podcasts are targeted at families of young children birth to two but can be used as a way to spark discussion and learn about embedding inclusive STEM into everyday routines. The blog posts include content on a variety of topics related to inclusive STEM learning.
10. **STEMIE Learning Trajectories Website:** Find learning progressions and activities related to science, technology, and engineering teaching and learning for each and every child (birth to five).
11. **Learning and Teaching with Learning Trajectories Website:** Find learning progressions and activities related to early math teaching and learning for each and every child (birth to eight).

Resources and Ideas Shared During the CoP:

1. **From guest discussants, Alissa Lange and Amie Perry at EC STEM Lab**
   - **Synchronous virtual PD by EC STEM Lab where kits are mailed out in advance**
   - **Example of photo essays**
   - **Seed Keepers Forest School**
2. **Tools and tech to support engagement in online environments that provide multiple ways students could express themselves**
   - **Video platform for students to share their reflections: Flipgrid**
   - **VoiceThread** (students could contribute to a discussion via audio, photo,

text, or video)

3. **Open Education Resources (OERs)**
   - Early Childhood Education STEM (from Northern Wisconsin Tech College)
   - Teaching Early and Elementary STEM (authored by our guest discussants, Alissa and Amie and their colleagues!)
4. **Disability/Inclusion specific modules (all free!)**
   - Iris modules (note: mostly K-12 content with some EC content)
   - AFIRM modules (note: while the practices are related to working with children with autism, many of these practices are also effective in supporting children with other disabilities)
   - CONNECT Modules (includes many video demonstrations, some which STEMIE staff love using to illustrate inclusive STEM teaching and learning)
5. **Artificial Intelligence (AI) in Teaching and Learning**
   (Note: Always check in with IT department about restrictions on AI tool usage as different universities may have different guidelines)
   - A Tool to Enhance Communication on Generative AI (GAI) and Learning
   - School AI: allows instructors to guide AI conversations with students and provides feedback on student understanding.
   - Magic School: Free tool that has safety features that helps teachers with planning, assessing, and differentiating instruction – recommended by an elementary school faculty.
   - Notebook LM: Notebook LM was used by a faculty to create short videos explaining lab connections and assignment instruction for students, so the content was more engaging and provided multiple representations of information for students.
   - **Other AI uses:**
     - I have had a colleague use the chatbot to talk through a parent-teacher conference with the student as a teacher and the bot as the parent.
     - Could ask the bot about reaching children with a variety of learning needs. For example, being specific about a STEM concept such as what plants need to survive and thrive, for example.