
Promoting Equity in Critical Thinking Skills

INSTRUCTIONS

This handout was designed for use with the podcast, “Promoting Equity in Critical Thinking Skills,” from Teachstone. The questions and activities in this handout could be used in a work session (e.g., professional learning community, professional development session), for individual coaching, or for self-reflection.

Goals

- ◆ Discuss the importance of providing opportunities to preschool girls to develop reasoning skills.
- ◆ Reflect on your practices to develop preschool girls’ confidence to build their reasoning skills.
- ◆ Plan experiences to further support preschool girls’ confidence in applying their reasoning skills.

Activity

- ◆ Listen to the podcast.
- ◆ Use the questions below to guide your reflection to support preschoolers’ reasoning skills.
- ◆ Implement your plan and adjust as needed to support preschoolers’ reasoning skills.

You’re trying to encourage that confidence. You don’t want to squelch that curiosity or that confidence. You want to bolster it. You want to let them know that their voice matters and they have something to contribute.

Dr. Lourdes Norman-McKay

REFLECTION QUESTIONS

- ◆ What caught your attention from the podcast? What made that fact, excerpt, or example meaningful to you?

- ◆ Dr. Norman-McKay discusses the importance of providing opportunities for girls and underrepresented groups in STEM (Science Technology Engineering Math) to develop critical thinking skills, such as reasoning.
 - How are you providing children with opportunities to reason and process problems and work through steps in your learning environment?

- ◆ Dr. Norman-McKay identifies that, in general, women are not entering the STEM workforce as much because of not wanting to make mistakes. Curiosity and innovative thinking are not encouraged as much in the preschool years which may lead to lack of confidence in girls to make and learn from mistakes. Reasoning and problem-solving are some of the key skills in the STEM mindset.
 - Are the girls and underrepresented minorities in your learning environment taking risks by asking questions and sharing ideas?
 - Is your learning environment supportive of making mistakes? How are the preschoolers encouraged to use reasoning skills from the lessons learned when they make a mistake?
 - How are you using the mistakes as opportunities for growth for all children?
 - Does the environment encourage the children to continuously explore and reason until they are satisfied with the outcome?

- ◆ Develop an action plan to further support building confidence in preschoolers, especially girls and underrepresented minorities, as they develop reasoning skills.
 - How can peers support each other?
 - What are ways you can design a learning environment to promote reasoning skills within all activities?
 - Consider resources and supports you may need to support reasoning skills. How will you obtain these?
 - Implement your plan, monitor children's progress, and adjust as needed.

ADDITIONAL RESOURCES

Learn more about supporting children's reasoning skills:

- ◆ **Source:** KQED
 - ◆ **Article:** Can Teaching Spatial Skills Help Bridge the STEM Gender Gap?
 - ◆ **Link:** <https://www.kqed.org/mindshift/43802/can-teaching-spatial-skills-help-bridge-the-stem-gender-gap>
 - ◆ **Description:** This article discusses the importance of developing spatial reasoning for girls, which has lasting effects for schooling and into adulthood.
-
- ◆ **Source:** NAEYC
 - ◆ **Podcast:** Developing Your Preschooler's Spatial Thinking
 - ◆ **Link:** <https://www.naeyc.org/resources/pubs/tyc/winter2021/message-backpack-spatial>
 - ◆ **Description:** This article shows ways educators can develop spatial skills in the classroom.