

APPLYING SESSION TO INSTRUCTION

The session is not over! A critical phase of learning anything new is **application**, when the learner takes new knowledge and applies it. There is some application included in the session, but, as with all professional learning for instructors, the rubber meets the road (or trail), when the instructors apply what they've learned to their instruction, and when they keep thinking about it and discussing it with their peers. If you want your instructors to try out "new" activities/approaches, program leader support is crucial. Even if they're excited by new ideas, it's easy for them, especially veteran instructors, to keep doing what they have been successfully doing already, and not try out new activities/approaches. Below are a variety of follow-up activities and discussions to dig deeper into the topic, and help you facilitate thoughtful implementation.

- **Staff brainstorm of what they and you can do to encourage incorporation of observation strategies.** After the session reflection, your staff will have already written ideas they have about implementation into their instruction. You can tap into these, as well as other ideas, through a brainstorm of what they plan to do, and how you can support them in doing it.
- **Instructor Observations.** If you do observations of instructors, discuss how you might incorporate elements from this session into the observations.
- **Discussing Implementation of *I Notice, I Wonder, It Reminds Me Of*.** Assign your staff to each try *I Notice, I Wonder, It Reminds Me Of* during their next student program, and write in their journal about how it went. Then, lead them in a discussion of the activity at the end of the program. Here's some suggested questions to focus a reflection or discussion on:
 - » What impact did the activity have on your students' ability to make observations, and to engage with nature?
 - » What was successful about the activity?
 - » What might you do differently the next time you lead it and why?
 - » How did you incorporate the routine into students' other field experiences (e.g., journals, sit spots etc.), and what ideas do you have about incorporating it in the future?
- **Continuing a discussion.** If there was a topic that came up during discussion that you had to cut off, and it seems like your staff is still interested, set aside some time to continue the discussion.
- **Look for external professional learning opportunities.** Encourage staff members to attend workshops by John Muir Laws/Emilie Lygren on observations and journaling, and/or to try out some of the free activities from his website (johnmuirlaws.com) Encourage attendance of workshops by Tom Brown (<https://www.trackerschool.com/>), Jon Young (<https://www.facebook.com/AuthorJonYoung>), Steve Van Zandt or Todd Newberry.



- **Assign your staff a reading related to the ideas in this session.** Tell them to use active reading strategies like underlining important points, writing out questions and connections in the margins, and asking critical questions like who wrote this, who is the audience, etc. Have them pair up with someone else and compare their notes and ideas, then bring this discussion into the whole group. Here are some suggested readings:
 - *Intentional Curiosity* by John Muir Laws, an excerpt from the book, *The Laws Guide to Nature Drawing and Journaling*.
 - *Lafayette Library's Science Cafe: Improving observational skills*, by Lou Fancher. This newspaper article covers more information about John Muir Laws and *I Notice, I Wonder, It Reminds Me Of*. Source: http://www.mercurynews.com/my-town/ci_28022113/lafayette-librarys-science-cafe-improving-observational-skills).
 - *Three Prompts for Deeper Nature Observation*, by John Muir Laws. This short article reviews much of the material from the session related to *I Notice, I Wonder, It Reminds Me Of*, and why it works so well when teaching students to make observations in nature. Source: <http://www.johnmuirlaws.com/natural-history/deep-observation>
 - *Falling in Love with Nature*, by John Muir Laws. In this short article, John Muir Laws speaks about how focusing “sustained compassionate attention” on organisms in nature helps create emotional bonds with the natural world, resulting in stewardship. Source: <http://www.johnmuirlaws.com/stewardship/falling-in-love-with-nature>
 - *The Science of Awe*, by Jake Abrahamson, an article about how experiencing awe can inspire collaboration, critical thinking, and other benefits. Ask your staff to brainstorm instances in your program that can lead to awe-inspiring experiences for students and to discuss how they might provide students with opportunities that model how they can find awe-inspiring experiences in any green space near where they live. Source: http://greatergood.berkeley.edu/news_events/in_the_news_item/the_science_of_awe
 - *Noticing: How to Take a Walk in the Woods*, by Adam Frank. A short article on how using science observation skills and mindset can lead to wonder in the natural world. Source: <http://www.npr.org/sections/13.7/2013/05/14/178467726/noticing-how-to-take-a-walk-in-the-woods>
 - *Fine-tuning the Senses*, by Tom Browns, an excerpt from the book, *Tom Brown's Field Guide to Nature Observation and Tracking*.
 - *A Philosophical Interlude* by Todd Newberry, an excerpt from the book, *The Ardent Birder*. In this chapter, Todd describes making detailed observations as being like interviewing an organism. The BEETLES Student Activity, *Interview an Organism*, is inspired by this approach. Some questions to ask: how might you apply “interviewing organisms” to you instruction; how can you help students ask questions that lead to deeper observations.

See the complete citation for *The Laws Guide to Nature Drawing and Journaling* in the reference list.



johnmuirlaws.com is a rich resource for reading and learning about nature journaling and making observations.



- **Pass out copies of the optional handouts and discuss:**
 - The *More on Making Observations* section of the *Background Information for Presenters* on page 35.
 - *A Whole Bunch of Quotes Related to Making Observations* (on): Ask participants to choose 1-2 quotes they find particularly meaningful and then discuss their choices with a partner.
- **Lead the following extended application activity, *Confidence & Accuracy in Observations*, on the next page.**

