



## *Reflection and Metacognition Series* **PART 1: Reflecting on Teaching Practice**

"Make time for reflection." It sounds simple enough, but how often do we stop to make time for reflection on teaching practices? Many instructors do it automatically while in the midst of teaching; however, transforming potentially-passing thoughts into concrete plans for change requires further intention. And if reflection is important for instructors, might it also be important for students? Schraw, Crippin, and Hartley (2006) found that engaging in reflection helped increase students' critical thinking ability.

This series on Reflection and Metacognition looks at the implications for both instructors (part 1) and students (part 2). We begin with discussing the merits of engaging in reflecting about teaching.

### **What is reflective practice?**

Since the beginning of the 20th century, scholars such as John Dewey, acknowledged reflection as an important element of effective teaching; it was from that continuing conversation that the term "reflective practitioner" emerged (Schon, 1987). Generally, a reflective practitioner is someone who actively engages in thinking about teaching with the express intent that reflections about those experiences inform future practice. More recent scholarship suggests that "...reflection [is] a process in which a person tries to make sense of something while acting on it at the same time" (Bishop-Clarke & Dietz-Uhler, 2012). As instructors, we reflect when we think about what we are doing, are willing to learn, and are open to change.

### **What are the benefits of reflection?**

Reflective practice is central to articulating student outcomes, considering new pedagogical perspectives, and engaging learners in a number of learning environments (in-person, hybrid, online). Reflection offers a chance to (re)explore our beliefs about learning and our teaching, many of which have become so deeply-seeded as to become "automatic."

Brookfield (2017) suggests there are a number of reasons reflection on teaching can benefit educators, such as: developing a rationale for practice, taking informed actions, keeping instructors engaged in the teaching process, and establishing trust with students. With regard to trust, Brookfield posits that intentionally disclosing the pedagogical decisions you have made during the design of the course/lesson/unit is an opportunity to build trust with students and show them that your plans are made to benefit their learning. In other words: A reflective instructor is more able to communicate the "how" and "why" of course design and delivery to students.

### **What is the process of reflection?**

The process is one in which we challenge our assumptions through reflection. According to Brookfield, "Critically reflective teaching happens when we build into our practice the habit of constantly trying to identify, and check, the assumptions that inform our actions as teachers (p. 5)." Brookfield further describes four lenses through which we might introspectively examine our teaching: through the eyes of our students, through our colleagues' perceptions, through our personal experiences, and through theory and research.

Considering ourselves through the lens of our students, increases our awareness in the ways we interact with our students. This may help us interrogate the common assumptions we have, predicated on our own learning, that may or may not be true for our student learners. This lens may inform how we see the disparity between our intentions and actual perceptions. Hearing and integrating this type of feedback can only increase our impact on learning. As but one example of a tangible way to reflect on our practice through the lens of students, Brookfield advocates for use of a [Critical Incident Questionnaire \(CIQ\)](#) as a tool. He argues that it can be quick to implement and particularly insightful. Since these questions ask students to reflect on their own learning, it also can serve as a reflective tool for our students. (For more details of the CIQ, see part 2 in this series.)



Additionally, opening ourselves to our colleagues’ interpretations may also shed new light on our practice. Engaging in open discussions with colleagues who share many of the same professional experiences can add nuance to our way of thinking, while also providing us with credible alternate perspectives. Considering our own experiences as learners (i.e., what makes us engage when in learning contexts, what motivates us to participate, what makes for effective group interaction) might also inform ways to change practice in order to increase student engagement in our own classes. Finally, existing research and literature on learning and teaching may illuminate our experiences or catalyze fresh new ideas. Taken together, and when examining our practice consistently and with a regularity, we engage in critical reflection.

**Why reflect on paper?**

Writing by hand has been demonstrated to stimulate the brain differently than writing on the keyboard. Researchers contend that transforming the spoken word into the written word activates cognitive processes that lead to learning and change. Mueller & Openheimer (2014) found that college students who hand wrote notes (rather than typing on a laptop) performed better on tests of conceptual knowledge.

**How do I get started?**

There are both formal and informal processes on the continuum of reflective practice. You could simply start by thinking of responses to the following questions:

- What worked well in my instruction? Who will I share this news with?
- What needs work? Who can help me think through this?
- What will I do differently? How will I know it is working?

For a more structured approach, scholars suggest a three-phased reflective process: Pre-planning, Planning, and Post-Planning (detailed below).

Phase	Description	Points of Reflection
Pre-planning	Thinking about previous experiences that inform the current teaching goal(s) (successes, lessons learned).	What assumptions or dispositions do you have about your class? What do you want learning to look like in your classroom?
Planning	Transforming thinking into action by designing (in some cases pilot testing) and implementing a teaching plan.	What strategies will help you accomplish this vision? What data will you gather to determine the effectiveness of your planning?
Post-planning	Reviewing the plans and the data you have to understand the effectiveness of your planning and to inform future plans.	What ideas, patterns, themes emerged from your data? What would you like to do differently next time?

While these are accessible and informal points of entry, the most systematized and formal process of reflection leads to the Scholarship of Teaching and Learning (SoTL). More specifically, SoTL is a structured and formal process of reflecting that entails questioning, hypothesizing, collecting empirical data, analyzing, and reporting (Bishop-Clark & Dietz-Uhler, 2012).

There are other ways to conceptualize reflection. Appendix 1 provides more examples to further reflect on your teaching at different stages of the instructional process.

**Extend reflective practice to other areas of professional practice?**

While reflecting on our teaching is the focus of this part, as professionals, we are not limited to reflecting on teaching alone. The practice of reflection can be extended to other areas of our professional lives. Although embedded in our research, we may already have informal systems for reflecting about our reading and our writing. What about reflecting on our mentoring: How do I ask clarifying questions of my mentee? Consult with them? Collaborate with them? Coach them? How do I strike a balance amongst



these behaviors? When attending talks, lectures, or conferences: What did I observe that particularly engaged me intellectually or emotionally? How do I reproduce both types of behaviors in my own class? Reflecting on all dimensions of our professional lives can contribute to deeper introspection and integration, thus improving outcomes and holistic well-being.

### **Additional Readings & Resources**

- McDrury, J., & Alterio, M. (2003). *Learning Through Storytelling in Higher Education: Using Reflection and Experience to Improve Learning*. Sterling, VA: Taylor & Francis.
- Newton, J., Ginsburg, J., Rehner, J., Rogers, P., Sbrizzi, S. & Spencer, J. (Eds.) (2001). *Voices from the Classroom: Reflections on Teaching and Learning in Higher Education*. Toronto, ON: Garamond Press.
- Ovens, P., Wells, F., Wallis, P., & Hawkins, C. (2011). *Developing Inquiry for Learning: Reflection, Collaboration and Assessment in Higher Education*. New York: Routledge.

### **Citation**

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### **References**

- Bishop-Clarke, C., & Dietz-Uhler, B. (2012). *Engaging in the Scholarship of Teaching and Learning*. Sterling, VA: Stylus Publishing, LLC.
- Brookfield, S. D. (2005). *Becoming a Critically Reflective Thinker*. San Francisco, CA: Jossey-Bass.
- Mueller, P. A., & Oppenheimer, D. M. (2014). The pen is mightier than the keyboard: Advantages of longhand over laptop note taking. *Psychological science*, 25(6), 1159-1168.
- Peters, J. K., & Weisberg, M. (2011). *A Teacher's Reflection Book: Exercises, Stories, Invitations*. Durham, NC: Carolina Academic Press.
- Schon, D. A. (1987). *Educating the Reflective Practitioner*. San Francisco: Jossey-Bass.
- Schraw, G., Crippen, K. J., & Hartley, K. (2006). Promoting self-regulation in science education: Metacognition as part of a broader perspective on learning. *Research in science education*, 36(1-2), 111-139.