Tech Snacks: SoTL Article Review

Once per semester OTLE provides a synopsis of the SoTL (Scholarship of Teaching and Learning) world. This time around we'll present some interesting themes we are seeing in SoTL journal articles and then give a quick review of three articles that may have useful insights and tools for your own teaching practice.

Spring 2021 themes

Below are some of the key themes and links to some interesting articles that we found in the most recent issues of the following journals: *College Teaching; Innovations in Education and Teaching International; Insight: A Journal of Scholarly Teaching; Interdisciplinary Journal of Problem-based Learning; International Journal for the Scholarship of Teaching & Learning; Journal of the Learning Sciences; Journal of Research in Innovative Teaching and Learning; Journal of the Scholarship of Teaching and Learning; Journal of University Teaching and Learning Practice; New Directions for Teaching & Learning; Teaching and Learning Inquiry; Teaching in Higher Education.*

Increasing Student Metacognition and Motivation

- Telling Students it's OK to Fail, but Showing Them it Isn't: Dissonant Paradigms of Failure in Higher Education
- Reflective Writing and Self-Regulated Learning in Multidisciplinary Flipped Classrooms
- Making the Invisible Visible: Enhancing Information Literacy and Metacognition with a Constructivist Activity
- Revising with Metacognition to Promote Writing Achievement
- Trifecta of Student Engagement: A Framework for an Online Teaching Professional Development Course for Faculty in Higher Education
- Mindfulness and Academic Performance: The Role of Compassion and Engagement

Promoting Active Learning and Active Reading

- What Type of Debrief is Best for Learning during Think-Pair-Shares?
- A Multi-disciplinary Mixed-Methods Study of Group Dynamics in Active Learning Space
- Samifying History: Designing and Implementing a Game-Based Learning Course Design Framework
- The Importance of Making-While-Reading for Undergraduate Readers: An Example of Inductive SoTL
- Promoting Critical Reading with Double-Entry Notes: A Pilot Study

Building Community and Inclusivity

- Reflecting on a Multi-Perspective Approach to Teaching and Learning about Police Shootings
- From Awkward to Awesome: Building Community and Engagement in the Moments before Class

Including Scaffolding and Feedback in Course Design

- Grading for Growth: Using Sliding Scale Rubrics to Motivate Struggling Learners
- Comparing Mastery-based Testing with Traditional Testing in Calculus II
- Using Repetitive Instructional Intervention to Improve Students' Higher-Order Thinking Skills
- The F3: Faculty Feedback Forms for Students

#1: Designing Active Reading Exercises

Hovland, Ingie. (2021). The Importance of Making-While-Reading for Undergraduate Readers: An Example of Inductive SoTL. *Teaching & Learning Inquiry, (9)*1, 27-44. http://dx.doi.org/10.20343/teachlearningu.9.1.4

Summary – The author describes and tests out nine different pre-class "writing-to-read" assignments and finds that <u>concept mapping</u> is best received by students as a helpful tool. She lays out her process for implementing and evaluating the various assignment methods and then concludes with commentary about what mapping seems to be a superior strategy to the others.

Why it may be helpful for you – The article is fairly straightforward and it describes the author's classroom implementation process in a way that makes it easy for others to adopt. Concept mapping in particular stands out as the most preferred and effective pre-reading exercise from the students' point of view, but other methods are also described in detail and could be experimented with in the classroom. Finally, this article serves as a model of SoTL scholarship that instructors at MSUN could easily emulate to conduct and publish their own pedagogical research.

#2: Flipping the Classroom

Robbins, M. M., Onodipe, G., & Marks, A. (2020). **Reflective Writing and Self-Regulated Learning in Multidisciplinary Flipped Classrooms.** *Journal of the Scholarship of Teaching and Learning, (20)*3, 20-32. <u>https://doi.org/10.14434/josotl.v20i3.27541</u>

Summary – The authors recognize that the flipped classroom strategy relies on "self-teaching, self-assessment, and self-regulation" and ask *how* a student without strong self-regulation might acquire those skills so that they can be successful in flipped classrooms. A group of faculty across various disciplines conducts an experiment in which one class section is required to keep self-reflective learner logs and the other isn't. Each section completes a learner questionnaire at the beginning and end of the course to measure improvement in self-regulation. They use this to test two hypotheses: Do students in flipped classes show increased self-regulation? (Mixed results.) Do students in flipped classes with reflective writing show improved regulation more than the first group without an intervention? (Yes, partly.)

Why it may be helpful for you – Both the questionnaire and the self-reflective activities ideas designed to teach self-regulation (e.g., learner logs, study plans) would be useful for any class, especially classes with high numbers of freshmen.

#3: Teaching Higher-Order Thinking

Caroll, K. A., & Harris, C. M., (2020). Using Repetitive Instructional Intervention to Improve Students' Higher-Order Thinking Skills. *College Teaching* (69)2, 82-90. https://doi.org/10.1080/87567555.2020.1823310

Summary – The authors (in MSU's Ecology department) recognize the importance of being able to "build connections between foundational concepts" and "generate new research questions" in STEM fields and ask whether explicit training will result in improved student achievement in these areas. They implemented a study in which they repeatedly asked students to articulate connections between topics and course goals, to gauge whether this would increase their achievement. They also concurrently surveyed students about their confidence in each week's topic.

Why it may be helpful – While the confidence results were inconclusive, the frequent prompts asking students to articulate connections between topics were correlated with significant improvement. OTLE has the resource referenced (*Classroom Assessment Techniques*, Angelo and Cross 2012).