

REFERENCES

- Acuto, Michele. 2020. "COVID-19: Lessons for an Urban(izing) World." *One Earth* April:317–19.
- Brandzell, Ben. 2010. "What Malcolm Gladwell Missed about Online Organizing and Creating Big Change." *The Nation*, November 15.
- Carden, Lucas, and Wendy Wood. 2018. "Habit Formation and Change." *Current Opinion in Behavioral Sciences* 20:117–22.
- Dias, Monica Costa, Christine Farquharson, Rachel Griffith, Robert Joyce, and Peter Levell. 2020. *Getting People Back into Work*. Institute for Fiscal Studies, Briefing Note BN 286, May.
- Ganz, Marshall. 2012. "Structuring Leadership." *MLD 377: Organizing: People, Power & Change*. Cambridge, MA: Harvard Kennedy School of Government.
- Gladwell, Malcolm. 2010. "Small Change: Why the Revolution Will Not Be Tweeted." *The New Yorker*, October 4.
- Murphy, Michael P. A. 2020. "COVID-19 and Emergency eLearning: Consequences of the Securitization of Higher Education for Post-Pandemic Pedagogy." *Contemporary Security Policy*, 492–505. Available at doi: 10.1080/13523260.2020.1761749.
- Porter, Michael E. 1991. "America's Green Strategy." *Scientific American* 264:168.

NOT ALL PAIN IS GAIN: LESSONS FROM TEACHING CRITICAL THINKING ONLINE

John LaForest Phillips, *Austin Peay State University*

DOI:10.1017/S1049096520001584

Those who teach political science—especially those like me who teach political theory—overwhelmingly see critical thinking (CT) as one of their priority learning outcomes (Moore 2011). Much of the conversation about stimulating CT in the virtual classroom focuses on discussion boards and interaction more broadly. Nearly everyone agrees that discussion, properly conducted, can help students develop CT (Williams and Lahman 2011). But is there any more that can be done?

Discussions can disappoint. It does not always seem like students make connections between—or inferences from—the assigned materials. There are two possible but conflicting responses to this state of affairs. Instructors can try to add material and assignments to stimulate CT, or they can scale back and try to focus student attention on a narrower range of materials and assignments.

Literature

Most conceptualizations of CT converge on the idea that it involves "an individual's capability to [...] identify central issues and assumptions in an argument, recognize important relationships, make correct references from the data, deduce conclusions from information or data provided, interpret whether conclusions are warranted based on given data, evaluate evidence of authority, make self-corrections, and solve problems" (Pascarella and Terenzini 2005, 156).

One commonly advanced strategy to develop student CT is known as "scaffolding." This entails using targeted assignments to help students break down complex judgments into a series of simpler ones punctuated by guided feedback before asking them to tackle more complex types of reflection (Sharma and Hannafin 2004; van de Pol, Volman, and Beishuizen 2010).

Adding assignments online (scaffolded or otherwise) also has been shown to motivate students to complete assigned readings,

increase participation in class discussion, and improve performance on exams (Brothen and Wambach 2004; Johnson and Kiviniemi 2009). In brief, more is better.

This view is not universally endorsed, however. Some advocate a "less-is-more" approach. The idea is to "shift from a broader focus on 'coverage' of a variety of types of document and concepts to deeper focus on a more narrow range of topics and/or assignments" (Skurat Harris, Nier-Weber, and Borgman 2016, 19).

The rationale for adopting a more minimalist approach stems from the unique characteristics of the online medium. Communication is more uncertain in online courses. Students may not choose to click on all the available course materials. The more materials there are, the higher the likelihood that something important will be missed. Furthermore, because the online environment is usually text based, if students do not read as well as they should (or professors do not write as clearly as they think they do), the potential for miscommunication may be greater. Finally, waiting for an email response to a query takes time; students may not seek clarification if they do not believe an answer will be forthcoming in a convenient time frame.

Advocates of the minimalist approach stress the need to declutter online courses, extend the period between deadlines, and focus scarce student attention on a limited quantity of materials and assignments.

Method and Data

I teach an introductory course in political theory required for political science majors at a midsize American public university.¹ For the past eight years, I have collected a dataset consisting of essays scored for their CT using a rubric adapted from the Washington State University Critical Thinking Initiative (Condon and Kelly-Riley 2004).²

During this time, both minimalist and more scaffolded approaches were sometimes adopted. Scaffolded semesters were identified by the presence of specifically designed scaffolding exercises. Minimalist semesters were identified by the small number of required assignments (i.e., fewer than seven). Anything else was put into a residual category. Although the selection criteria are simple, table 1 shows that they align well with other dimensions of the concepts.

The scaffolded semesters have more assignments, more specific scaffolding assignments, more scaffolded CT quiz questions, more quiz questions overall, a greater variety of reading assignments, more required discussion, and more assignments with individualized feedback. The semesters with a minimalist approach have less of all of these elements. The residual category usually falls in between these two approaches. Space does not permit a discussion of the specific types of scaffolding exercises used, but several are discussed elsewhere (see Phillips 2018). Table 1 also shows that sections using the different approaches are not statistically different in terms of academic qualifications of students.

Summary of Findings

Overall, there were no statistically significant differences in mean CT scores across the three different types of semesters (table 2). The extra work that went into scaffolding online classes yielded no aggregate dividends in terms of measured CT. Table 2

Table 1

Summary Statistics: Three Types of Semesters (Standard Deviation)

	Semester Type		
	Scaffolded	Other	Less Is More
Mean GPA (Beginning of the Semester)	2.99 ^a (0.63)	3.09 ^a (0.60)	3.13 ^a (0.67)
Mean ACT Score	22.43 ^a (5.07)	22.5 ^a (3.3)	22.6 ^a (4.7)
Mean Age	27.5 ^a (9.4)	25.82 ^a (6.1)	26.6 ^a (8.5)
Mean Credit Hours	95.96 ^a (30.9)	92.76 ^{ab} (29.9)	87.88 ^b (34.2)
Gender (Female)*	54%	63.16% ^a	61.74% ^a
Race (Non-White)*	32.7%	24%	41.1%
Mean Required Graded Assignments	21.97 (1.1)	15.67 (3.6)	7.81 (0.9)
Mean Scaffolded Exercises	4.58 (0.64)	0 (0)	0 (0)
Mean Scaffolding Quiz Questions	50.13 (10.3)	18.6 (17.4)	9.47 (8.1)
Mean Content Quiz Questions	99.62 (14.6)	45.74 (34.7)	31.3 (20.3)
Mean # of Essays Scored	3.32 ^a (0.63)	3.8 (0.56)	3.0 ^a (1.05)
Required Discussion Posts	28.87 (11.5)	24.68 (27.7)	13.42 (18.9)
Total Number of Reading Assignments	47.24 (5.48)	36.96 (713.7)	28.94 (6.73)
Assignments with Instructor Feedback	13.97 (5.6)	10.26 (3.7)	6 (0.4)
N (Students/Sections)	67/4	63/5	58/3

Notes: Means sharing the same superscript are not significantly different from one another (Tukey-Kramer Honest Significance Test; $p < 0.05$).

* Nominal variables are analyzed using a paired one-tailed chi-square test. Means sharing the same superscript are not significantly different from one another ($p < 0.05$).

Table 2

Dependent Variables of Interest: Three Semester Types (Standard Deviation)

	Semester Type		
	Scaffolded	Other	Less Is More
Mean Aggregate CT Score (out of 100)	54.08 ^a (18.5)	53.04 ^a (17.9)	53.63 ^a (17.4)
Mean Writing Proficiency (out of 50)	41.06 ^a (6.2)	42.12 ^a (6.4)	40.66 ^a (5.9)
Withdrawal Rate (%)	10.48 (5.6)	17.5 (8.7)	6 (4)
Content Exams/Quiz Mean Score (out of 100)	73.67 ^a (12.4)	76.76 ^a (11.2)	74.85 ^a (13.7)
Assignment Completion Percentage	94.18 ^a (9.4)	95.71 ^a (10.6)	96.4 ^a (9.2)

Notes: Means sharing the same superscript are not significantly different from one another (Tukey-Kramer Honest Significance Test; $p < 0.05$).

* Dummy variables are analyzed using a paired one-tailed chi-square test. Means sharing the same superscript are not significantly different from one another ($p < 0.05$).

also lists secondary learning outcomes for context.³ Overall, there were few differences between the minimalist and the scaffolded semesters. The only statistically significant difference is that students withdraw less often from the minimalist semesters. Despite the author's best efforts, alternate methods of analyzing the data (e.g., regression analysis) did not uncover further differences.

students) are not doing enough. This can lead to busy and intimidating online course designs. These courses are more work for students but also more labor intensive for the instructor in both preparing for the course and time spent assessing and giving feedback during the course. If moving the needle on CT online is difficult despite a substantial increase in effort, then—*ceteris paribus*—it is more efficient for everyone if the more minimalist

If moving the needle on CT online is difficult despite a substantial increase in effort, then—ceteris paribus—it is more efficient for everyone if the more minimalist course designs are adopted.

Conclusion

Instructors want their students to flourish online. If they follow a more minimalist approach, they may feel as if they (and their

course designs are adopted. Seeking innovation in online learning is important, but we also should acknowledge that not all pain is gain. ■

NOTES

1. Students self-selected into online courses but had no advance notice of the course design.
2. Six dimensions of CT are scored: Issue Identification, Textual Interpretation, Logical Consistency, Awareness of Alternative Perspectives, Use of Evidence, and Assessing Implications. Scores are weighted equally to form an additive index.
3. To improve comparability, all exam scores were normalized as a percentage of the top score. Scores for writing proficiency are averages of scores for Spelling and Grammar, Introduction, Organization, and Efficiency. Exams varied in their content and format, but criteria for assessing writing were stable for the entire period.

REFERENCES

Brothen, Thomas, and Catherine Wambach. 2004. "The Value of Time Limits on Internet Quizzes." *Teaching of Psychology* 27:58–60.

Condon, William, and Diane Kelly-Riley. 2004. "Assessing and Teaching What We Value: The Relationship Between College-Level Writing and Critical Thinking Abilities." *Assessing Writing* 9:56–75.

Johnson, Bethany C., and Marc T. Kiviniemi. 2009. "The Effect of Online Chapter Quizzes on Exam Performance in an Undergraduate Social Psychology Course." *Teaching of Psychology* 36:33–37.

Moore, Matthew J. 2011. "How (and What) Political Theorists Teach: Results of a National Survey." *Journal of Political Science Education* 7 (1): 95–128.

Pascarella, Ernest T., and Patrick T. Terenzini. 2005. *How College Affects Students*. San Francisco: Jossey-Bass.

Phillips, John L. 2018. "Making Assignments Count: The Quest for Critical Thinking in Undergraduate Political Theory." *Journal of Political Science Education* 15 (2): 142–60.

Sharma, Priya, and Michael J. Hannafin. 2004. "Scaffolding Critical Thinking in an Online Course: An Exploratory Study." *Journal of Educational Computing Research* 31 (2): 181–208.

Skurat Harris, Heidi, Dani Nier-Weber, and Jessie C. Borgman. 2016. "When the Distance Is Not Distant: Using Minimalist Design to Maximize Interaction in Online Writing Courses and Improve Faculty Professional Development." In *Applied Pedagogies: Strategies for Online Writing Instruction*, ed. Daniel Ruefman and Abigail Scheg, 17–36. Boulder, CO: University Press of Colorado.

van de Pol, Janneke, Monique Volman, and Jos Beishuizen. 2010. "Scaffolding in Teacher–Student Interaction: A Decade of Research." *Educational Psychology Review* 22:271–96.

Williams, Leonard, and Mary Lahman. 2011. "Online Discussion, Student Engagement, and Critical Thinking." *Journal of Political Science Education* 7 (2): 143–62.

A FORMAT-FLEXIBLE PEDAGOGY OF CIVIL DISCOURSE

Jennie Sweet-Cushman, Chatham University

DOI:10.1017/S1049096520001547

College can be a formative time for exploring our political beliefs. As teachers, political scientists should be keenly interested in fostering this development through political discussion in the confines of the classroom while remaining aware of the pitfalls that accompany this engagement outside of it—particularly because much of this discussion takes place online. Accordingly, facilitating conversation in an online format is crucial to developing skills that translate to the larger political environment. Drawing on my experience in teaching synchronous class discussions on Twitter, this article explores best practices for using online discussions to model civil, substantive discourse and considerations for training students to be responsible in their independent political communications.

Although the current contentious political environment might suggest otherwise, engaging our fellow citizens in meaningful dialogue about politics is crucial to the health of democracy.

Research shows that discussing politics helps us to refine our own views and makes us more empathetic toward the views of others (Harrison 2020). Despite how uncomfortable differences of opinion might make us feel, we know that “crosscutting” conversations have many positive outcomes (Mutz 2006).

Alas, many of us—our students included—are avoiding the rancor that seems ubiquitous in political discussion by avoiding it. The conditions seem most harsh in online spaces where opportunity is plentiful but social accountability is less so. As Harrison (2020, 10) observes, “Societal, cultural, and technological changes are making it increasingly convenient to avoid contention and disagreement altogether, leaving us without opportunities to learn how to handle respectful disagreement of opinion.”

These realities make it imperative for college instructors to provide opportunities for students to engage in civic discourse. This period of socialization in young adults’ lives is vital given that their attitudes are not totally fixed and remain malleable through early adulthood (Sears and Levy 2003). This means that when students come to us, they very well may have some idea of their political values but are still open to refining them based on the new people and ideas that they will be exposed to in college. Political discussion is crucial to this development.

It is naïve to imagine that the skills that lead to the quality exchange of ideas develop without purposeful training; therefore, our classrooms should be training grounds. Any instructor who has successfully navigated a discussion-based (i.e., in-person or online format) course recognizes these building blocks for preparing students to be good discussants. This preparation ideally should consist of the building of community, training in information literacy, and socialization of “good” behavior.

In my own pedagogy, this means building toward students discussing political issues synchronously during a “Class on Twitter” (Sweet-Cushman 2019), a pedagogical innovation to combine the benefits of classroom discussion with the reality of real-world conversation. Students are given an issue of politics or policy and are expected to practice their information literacy and discussion skills to share information with one another quickly and succinctly on Twitter. I wait until students have had an opportunity to get to know one another; online, this is through small-group work or breakout sessions—meaningful political discourse does not occur between strangers in the comments section but rather between individuals with at least some level of familiarity and trust (Himmelboim et al. 2012; Stolle, Soroka, and Johnston 2008). It is our responsibility to develop that trust. I also pose most of the questions, setting up the resulting discourse to be constructive and focused.

Students must be prepared with the requisite information literacy to support substantive contributions. Two primary considerations are guiding students’ understanding of (1) the difference between opinion and fact,¹ and (2) how to judge the quality of information—including assessing what makes a good source. Students reported that they find this second consideration challenging (Sweet-Cushman 2019), but I have had luck with the Media Bias Chart® constructed by Ad Fontes Media.

We also should socialize students in productive discussion dynamics. Faculty should model good behavior in this regard, providing a safe space to disagree, ask questions, and seek clarification. For me, this can take the form of “manufacturing” disagreement when it does not exist naturally among students.