In Unity There is Strength: How to Incorporate Your Research into Teaching

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This chapter is about how to actively and effectively incorporate research into teaching for academics teaching non-PhD students. When teaching involves professional-track master students or undergraduates, our job centers more on helping students learn about a subject systematically instead of training them to conduct original research to advance the frontier of knowledge. As such, our research and teaching become more disconnected and go their separate ways, and it requires more conscious decisions and course design to connect research and teaching when the course level becomes less advanced.

This chapter examines a variety of ways in which our research can facilitate our teaching and offers tips to identify opportunities in our research process that can be turned into teaching moments to improve student engagement. Because of my experiences working in a Primarily Undergraduate Institutions (PUIs) setting, this chapter is written with two types of academics in mind. It would certainly be most useful for instructors working in the PUI setting. Moreover, the chapter may also be useful for novice instructors or teacher scholars who are trying to integrate their teaching and research more. My goal is to help academics with more demanding teaching obligations to find ways to channel your research passion into more effective teaching.

There are three immediate benefits in closing the gap between our research and teaching. First, we already spend a lot of time and energy thinking about our research, which is what we are passionate about. Finding ways to connect our research to our teaching allows us to channel the passion and connect it to our students. Second, embedding our research in teaching also gives us a way to approach our research differently, and sometimes it helps improve our research, especially in terms of how to frame and communicate your research with a broader audience. Last, in the long run, it simply saves you time and mental energy to transit between research and teaching.

The chapter is organized in the following way. The next section identifies teaching opportunities in the research process. I organize different strategies based on the level of preparation/adaptation needed to turn those research steps into teaching opportunities. I also briefly discuss how research can motivate students toward more effective learning. Then, I discuss the power of backward design in teaching, which can also be the facilitating process to integrate more research into teaching before I provide concrete step-by-step guide to actively

embed research teaching. I use one introductory undergraduate course as a running example to demonstrate the concrete steps to include all the research incorporation strategies I discussed above in this general education course. This section can be particularly useful for instructors at PUIs where research resources are more limited and teaching and service loadings can be more demanding. I conclude the chapter by reiterating the benefit of including research in teaching.

Teaching Opportunities in Research Process

How to identify teachable moments in your research process? In this section, I list some steps in our research process that can become good teaching opportunities. I organize the strategies based upon the needed adaptation efforts. I start with the strategy with the minimum level of preparation to the one with the maximum level of preparation.

Teach what you want to read for your research

The most straightforward way is to assign readings that you are going to read for your research. This strategy requires almost zero to minimum preparation and is most suitable for undergraduate upper-level seminars or graduate-level courses. This strategy is particularly useful for researchers who are in the process of writing a book manuscript. The literature review section in a book manuscript is usually more extensive regarding the breadth and depth of the works reviewed. Each strand of research can easily become a week's reading list. The literature review section can easily become the skeleton schedule for your syllabus. You can also use teaching as an opportunity to help you organize and summarize your understanding of a research topic or your literature review section. For instance, you can assign what you plan to read to your students and have them summarize and evaluate the literature. During seminar discussions, you may use the opportunity to deepen your thoughts and analysis on the literature. If you happen to be writing the book when you are teaching the course, the benefit can be immediate and immense.

Use the theoretical debates in your research

Another useful strategy is to turn the conceptual/theoretical debates happening in your research area into an assignment or a discussion/debate topic in the classroom. Compared to the previous strategy, it takes more preparation to turn the theoretical debates into teaching opportunities and the focus of preparation is on how to tailor the theoretical discussion to fit the level of your course, which will be discussed more extensively in the next section. The gist of this strategy is to use existing debates in the field and turn them directly into assignments or class activities. Such a strategy can be used for undergraduate lower-level courses, upper-level

courses, and graduate-level seminars. All the instructor needs to do is to adjust the level of difficulty.

For example, in comparative politics, one major debate is about what democracy is and is not and how to measure democracy. Another major debate is about what causes and sustains democracy. In my undergraduate-level research method class, I directly turn the debate on different conceptualizations of democracy into a series of assignments. I first have students compare and contrast how major comparative datasets (e.g., Freedom House, POLITY IV, V-Dem, etc.) conceptualize and operationalize democracy. I then have them use different democracy proxies to study one country's democratization process.[1] In the research method class, students are then asked to use the case study to evaluate the pros and cons of different conceptualizations. If it is a comparative politics course, I then ask students to apply theories of democratization and evaluate which argument explains the case better. If it is a graduate-level seminar, I can easily create a writing assignment in which I ask students to evaluate different schools of democratization theory in explaining specific regions/countries.

The "background learning" strategy

When academics start a new research topic, we often time need to do some preliminary research. The preliminary research can of itself become teaching materials. The "background learning" strategy is useful especially when one is trying to start a new project/topic. Teaching obligations can motivate (or force) you to put in the time to do the initial research with concrete deadlines. Because it is also a new topic for you, the amount of preparation time needed can vary quite a lot.

Depending on the course level and the instructor's energy level, there are two routes to adopt this strategy. The first route is the lecture route, which definitely requires more preparation and is more suitable for undergraduate level courses. For instance, when COVID-19 started in 2020, I was curious about how regime types and state capacity impacted government variations in their COVID-19 responses. I did preliminary research and made it a lecture in my Asian Politics course, which students also highly appreciated given how timely the topic was. The lecture also helped me organize the initial thoughts and which ultimately led to several related publications (Yen 2020; Yen et al. 2022; Yen and Liu 2022).

The second route is to directly turn background information research into assignments for students. The idea is to have your students directly research the background information about which you want to learn more. This route is more suitable for undergraduate upper-level courses or graduate level seminars. The caveat is that the outcome quality may vary quite a bit depending on students' levels. For undergraduate level courses, if you are to turn background information research into an assignment, I suggest two additional points: 1) still do some preliminary

[1] This part varies from class to class and depends on my research focus at the time. I usually ask students to focus on specific countries about which I want to know more.

research yourself and point students toward the direction you want. For example, you can provide resources they should read and research; 2) limit the research scope for students. For instance, you may have different groups research different aspects of the background. Doing so can also easily create a follow-up assignment/in-class activity and have students teach each other about what they have learned in their research, and eventually, the whole class can piece together a comprehensive understanding of the topic. In a nutshell, when you need more background information for your research, it can become teaching opportunity as well.

The Power of Motivation and Backward Design

Behind all the tips and strategies in better aligning our teaching with our ongoing research lies one fundamental factor for more effective learning: motivation. Research has shown that students' motivation has direct impact on their learning behaviors and learning outcomes (Ambrose et al. 2010). Authentic and real-world applications can motivate students, and political science research often can be directly linked to ongoing real-world events. We political scientists are also often motivated by ongoing world events to continue our research. Try to channel what motivates you to do your research to your students. Help connect the dots for your students between the ongoing issues happening in the world and how our theoretical framework has relevance and offers useful perspectives. Your students will get motivated too. Moreover, we all have to pitch our research to the general audience, and finding the right way to motivate students provides an opportunity for us as researchers to approach our research topics from different angles. The iterative process often helps us as researchers to frame our research better. In other words, higher levels of integration help channel one's passion for research into teaching and motivating students, which can become reciprocal stimulation for your ongoing research.

How can one include the strategies mentioned above in a course? The key is to employ the strategy of backward design when preparing a course. That is, to start with the expected learning outcomes and the cognitive process students may have to go through to achieve the learning goals. Then, work backward to think through the assessment tools you want to use to evaluate students' success. Assessment tool design is a good place where you can actively incorporate your research. The next step is to organize the content into weekly lectures, discussion questions, and class activities. This is the second place where you can use your research to help you design your course content.

Why is it a more productive process to adopt a backward design approach? Because there are some fundamental differences between research and teaching. First, the end goal is different. Research is to produce systematic knowledge to enhance our understanding of the world around us. It is to use what we already know to explain what we do not know. As such, the end goal of research is to push for an explanation of the new phenomenon or the unknown. In contrast,

teaching is to organize and "translate" the knowledge we already know so that students can understand the world around us through analytical frameworks, and this is especially true when teaching undergraduates, so the end goal is knowledge dissemination. Second, the audience is different. The audience of research is mostly peers in the field, who already have deep background knowledge of the subject. Students are the audience of your teaching. The further away students are from conducting original research, the bigger the gap is between research and teaching, and the more adaptation you would need from research to teaching. Due to the differences in the end goal as well as the audience, research should be tailored and incorporated differently depending on the levels of a course. Therefore, it is more productive to start from the end point, which is the learning objectives upon completion of a course, and design backward.

Step-by-Step Guide to Integrate Research into Teaching

If you already know what you are teaching, how can you actively incorporate more of your research into your teaching? Below I provide concrete step-by-step tips to guide you through the process. To illustrate the step-by-step tips more vividly, I use one course I am currently teaching as a running example. The course is *Introduction to Comparative Politics*.

Step 1: Identify and Align Learning Objectives with Learning Typologies

To incorporate your research into teaching more effectively, the first and foremost is to identify what the learning objectives are. The learning outcomes you set have direct implications on what and how your research should be incorporated. When identifying learning objectives, try using specific and measurable outcomes. Bloom's taxonomy provides a useful starting point. There are six levels of cognitive process in learning, including knowledge, comprehension, application, analysis, synthesis, and evaluation.[2] Each of these levels represents one essential aspect of the learning process. Try to match the dimensions of the learning process with the objectives. Needless to say, your learning objectives should be closely related to the course levels.

Example: Introduction to Comparative Politics

Because it is an introductory course for the major as well as a general education course, the main objective is to lay the foundation for advanced courses and motivate undeclared students to get interested in political science. As a result, I focus on the cognitive domains of remembering and understanding fundamental political science concepts and the ability to apply these concepts in different contexts. My other goal is to introduce students to how social

[2] https://bloomstaxonomy.net/ (Accessed on June 21, 2022).

scientists study and measure political institutions. To this end, the learning objectives are (I bolded the verbs related to Bloom's learning taxonomy):

- **Recognize** and **explain** how political institutions at different levels affect people's lives and can **apply the knowledge** to different contexts and to real world events.
- **Gain familiarity with** the resources available **(i.e., know where to find what data)** for studying politics in the developing world.

Step 2: Incorporate Your Research into Assessment Tools

Once you identify the learning objectives for a course and match the learning objectives with Bloom's learning typology, the second step is to think thoroughly about assessment tools you want to use to evaluate your students' progress. This is where you can include some of the teaching opportunities discussed in the previous section. Background learning and theoretical debates are usually two ways I incorporate my research into assessment tools.

Example: Introduction to Comparative Politics

To achieve the above-mentioned learning objectives, I need to design assessment tools to evaluate whether students can define and explain political concepts and apply those concepts in various contexts. Meanwhile, I also aim to familiarize students with existing datasets political scientists use to study the world.

Last time when I re-designed the course, one of my research projects was to study how state capacity shapes governmental variation in crisis response (Yen et al. 2022). I turned the dataset I was using at the time, the Quality of Government (QoG) dataset,[3] into an assignment and asked a series of questions related to the Government Effectiveness measure developed by the World Bank Group. I then asked students to study the State Fragility Index, another broad state capacity measure developed by the Fund for Peace.[4] Students then were asked to compare the two measures and how political scientists develop two different measures to study state capacity. Because I was already comparing different measures of state capacity for my research, I did not do much extra work to turn it into an assignment.

Step 3: Incorporate Research into Course Content

After you plan your assessment tools, the next step is to plan weekly lectures and class activities. Here, again, how your research can contribute to your course content is contingent upon the course level. If you are teaching an upper-level seminar, assign students what you intend to read for your research would be a good strategy. If you are teaching a lower-level

[3] https://qog.pol.gu.se/data/data-portal (Accessed June 8th 2022)
[4] https://fragilestatesindex.org/, (Accessed June 8th 2022)

course, applying background learning for your research can be more useful. Sometimes, I also turn theoretical debates in the field into classroom debates.

Example: Introduction to Comparative Politics

For this introductory level course, I teach basic concepts such as the modern state, regime types, and regime change. Given that there is constant development in regime change around the world, I always pick a new case to focus on when I teach regime change. For instance, in 2019, I wanted to keep track of Venezuela's presidential crisis, in which the nation was divided to support different leaders as the legitimate president. I turned the event first into my lecture material and then into assignment content. I asked students to first research and summarize the event (which also helps train their synthesis ability) and then ask them to apply the concept of modern states to Venezuela's case and discuss why having one and only one legitimate leader is essential for functioning sovereignty. Another example would be the 2021 regime change in Myanmar. I adopted the same strategy to stay informed about cases of democratic backsliding. I had students summarize the 2021 military coup before I ask them to discuss how Myanmar's case illustrates the theory of democratic backsliding and the conditions under which a military coup is more likely to happen to trigger democratic backsliding. On ongoing world events, The Monkey Cage often has good background readings for undergraduate students too, which makes teaching real-time events easier.

Conclusion

In this article, I discuss various ways research can inform teaching in political science. I identify opportunities in your research that can be transformed into teaching moments. The chapter also offers concrete tips for finding ways to incorporate research into your teaching. The primary suggestion is to start from the level of cognitive understanding we hope our students can achieve in the course before deciding how to incorporate research into teaching. Once the learning objectives are identified, work backward to pick and choose which part of your research can be tailored and included in teaching.

Even though the suggestions are by no means exhaustive and need to be tailored according to the specific academic setting one is in, the chapter provides a starting point for academics working in teaching-oriented institutions to think about ways to bring their research closer to their teaching. In a time when faculty burnout is a real problem in the higher education (Gewin, 2021), it is of vital importance to find ways to work smarter but not harder to have a fulfilling career in academia.

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Short Bio

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