Active Learning Strategies for Diverse Learning Styles: Simulations Are Only One Method

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ABSTRACT
Although political science instructors increasingly recognize the advantages of incorporating active learning activities into their teaching, simulations remain the discipline’s most commonly used active learning method. While certainly a useful strategy, simulations are not the only way to bring active learning into classrooms. Indeed, because students have diverse learning styles—comprised of their discrete learning preferences—engaging them in a variety of ways is important. This article explores six active learning techniques: simulations, case studies, enhanced lectures, large group discussion, small group work, and in-class writing. Incorporating these activities into an introductory, writing-intensive seminar on globalization and surveying students about their engagement with course activities, I find that different activities appeal to students with different learning preferences and that simulations are not students most preferred activity. Bringing a broader range of active learning strategies into courses can improve teaching for all students, no matter their learning style.

Political science lends itself to a wide range of active learning activities. Unlike traditional teaching methods, where students more passively take in information through at-home readings and professor-delivered lectures, active learning demands more—and more engaged—student participation. Active learning helps students not only learn content but also develop critical thinking and writing skills (Bonwell and Eison 1991). These activities require instructors to offer opportunities “for students to meaningfully talk and listen, write, read, and reflect on the content, ideas, issues, and concerns of an academic subject” (Meyers and Jones 1993, 6; emphasis in original). Indeed, the annual National Survey of Student Engagement includes increasing active and collaborative learning as one of only five benchmarks of effective educational practice (NSSE 2012). In the United States, millennials (the generation born after 1980) account for more than 75% of all undergraduates and more than 85% of full-time undergraduates (US Department of Education 2012); because this generation is more likely to attend college, more ethnically and racially diverse, and more likely to embrace technology than previous generations (Taylor and Keeter 2010), engaging them in more interactive ways is critical. Because students have diverse learning preferences, a broad range of active learning activities can help engage them in their learning.

In political science, often we focus on a single active learning activity: simulations. These include mock conventions, assemblies, debates, and other collaborative activities when students take on roles and make decisions accordingly. Simulations and role plays are the most common active learning activities in introductory courses (Archer and Miller 2011), and these are also used in upper-level, graduate, and online courses (e.g., Baylouny 2009; Brynen 2010; Parmentier 2013). Since 2006, simulations and role plays have been featured in one or two tracks at the annual APSA Teaching and Learning Conference; a recent issue of The Journal of Political Science Education focused exclusively on simulations (Asa et al. 2013); and many articles show faculty how to integrate these activities into their classes (e.g., Auerbach 2012; Wedig 2010). Role plays are common in all subfields, including American politics (e.g., Baranowski 2006; Rinfret, 2012), comparative politics (e.g., Baylouny 2009; Biziouras 2013), international relations (e.g., Loggins 2009; Oros 2007), and even political theory (Ahmadov 2011; Schaap 2005).

Studies show that students learn from the role plays in their political science courses. Students report greater engagement, insight, and learning after participating in simulations (e.g., Brynen 2010; Oros 2007). More important, studies using control groups show that students perform better on quizzes if they have participated in a simulation or discussion (Powner and Allendoerfer...
2008), better comprehend, apply, and evaluate complex concepts when taught through debate (Omelicheva and Avdeyeva 2008), have better knowledge of the material and perform better on exams after participating in brief simulations or collaborative activities (Baranowski 2006; Centellas and Love 2012; Lay and Smarick 2006), and remember more information over the long term after taking part in simulations (Bernstein and Mezlish 2003). Thus, simulations help students engage more deeply with course material, understand complexity, perform better on assignments, and better retain material over time.

However, simulations are not the only way to bring active learning into our classrooms. Because students have diverse learning styles, comprised of their distinct learning preferences, it is easier for them to learn and engage with material in ways that complement their learning styles; as a result, incorporating a broader range of active learning activities in our courses may help make our teaching more effective (Bonwell and Eison 1991; Dunn 2000; Meyers and Jones 1993). Research demonstrates that “educators … have increased students’ academic performance by responding to their diverse learning styles” (Dunn 2000, 8). A recent study demonstrates the promise of applying learning styles to teaching, demonstrating that learning styles significantly influence students’ performance when exams are given in different formats (Leithner 2011). Some studies have investigated active learning activities other than simulations. For instance, case studies can be effectively integrated with simulations; after students become familiar with a case, they then take on a specific role in a simulation (e.g., Crossley-Frolick 2010; Fliter 2009). Additional studies show that many other active learning activities can engage students and improve student learning, including case studies without simulations (Craig and Hale 2008; Krain 2010), discussion (Pollock, Hamann, and Wilson 2011), enhanced lectures (Huerta 2007), experiential learning (Bardwell 2011), writing (Çavdar and Doe 2012), and combining two or more active learning activities (e.g., Auerbach 2012; Powner and Allendoefer 2008).

**ACTIVE LEARNING STRATEGIES**

To evaluate the impact of active learning activities on student learning, I incorporated six common active learning techniques into an introductory, writing-intensive seminar for first-year students focusing on globalization: simulations, case studies, enhanced lectures, large group discussion, small group work, and in-class writing. I taught four sections of this course (with 14 to 16 students) at two private, selective, small liberal arts colleges between September 2007 and December 2010. I invited students to complete an anonymous survey about their learning preferences and satisfaction with course activities at midterm and at the end of the semester. Asking students to reflect on their preferred ways of learning and satisfaction with class activities does not directly measure whether students’ learning preferences or the effect of active learning strategies on student learning. However, it helps us understand the impact these activities have on students’ perceptions of what they have learned and which techniques they believe helped them learn. Because students’ perceptions of their learning are linked to their learning outcomes, examining students’ perceptions has value (López-Pérez, Pérez-López, and Rodriguez-Ariza 2012).

This study was not conducted at institutions typical of American higher education system; private, four-year, not-for-profit institutions enroll only 14% of all tertiary students in the United States, and small liberal arts college are a small subset of this group. However, comparing 2010–11 statistics from both institutions’ Common Data Set to statistics from all undergraduate students in the United States reveals some commonalities. Compared to the national average, both institutions had a similar or lesser percentage of white students (63%), both had a similar or greater percentage of international students (3.5%), and whereas one of the institutions was a women’s college, the other had only a somewhat lower percentage of women (57%); the Common Data Set does not give any information about students’ income level or age (US Department of Education 2012: Institute of International Education 2011). Thus, the student body at these two schools is somewhat representative of students studying at all US institutions of higher education.

**LEARNING STYLES ENGAGED BY ACTIVE LEARNING STRATEGIES**

The impact of learning styles on student achievement has been explored in a wide range of postsecondary education fields, from biology to economics to law (e.g., Bonwell and Eison 1991; Dunn 2000). Although learning styles are not mutually exclusive and students can—and do—learn in many ways, students learn most easily when they are taught in ways that complement their preferred learning styles.

Although the many learning styles inventories have important differences in how individuals’ many discrete learning preferences are classified into their overall learning styles, these inventories also have important commonalities (Dunn 2000, 6). Here I focus on two key dimensions: preferred learning environment and preferred learning medium. Looking at learning environment, individuals learn best in either social situations, where they explore new material with others, or in solitary situations, where they reflect on their own. Looking at learning medium, individuals learn best when they are exposed to new material visually, in graphs or diagrams, verbally, via written or spoken words, and when they can interact physically, through movement or touch. As shown in table 1, all six of these active learning activities appeal to students with a range of learning styles.

Although millennials, the majority of our students, are technologically adept (Taylor and Keeter 2010), this study did not address the role of technology. However, technology can help facilitate active learning activities, from using listservs and instant

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message in a simulation (Brynen 2010) to creating a fact-checking blog for an election (Bardwell 2011). Next, I examine the learning styles most engaged by these six activities and describe how I incorporated each activity into my course.

Simulations can take place in a single class or several classes, and students sometimes prepare, in advance, an outline, statement, or briefing paper (e.g., Fliter 2009; Loggins 2009). These exercises are appropriate for smaller classes of up to 35 students (e.g., Baranowski 2006; Rinfret 2012). For larger classes, online synchronous or asynchronous activities can be used (e.g., Bernstein and Meizlish 2003; Coffey, Miller, and Feuerstein 2011). Activities can be incorporated into discussion sections (Oros 2007), several students could be assigned to play an individual role (Wedig 2010), or some students could serve as observers (Baylouny 2009).

Role plays appeal to social learners, verbal learners, and, to some extent, physical learners. In this course, students engaged in two simulations each during a single class period; debriefing generally continued into the next session. The first simulation was a bilateral trade negotiation, and the second was a policy roundtable about the future of globalization.

Like role plays, case studies ask students to explore a particular situation. Whereas simulations ask students to take on the roles of key actors, a case study is “an intensive study of a single unit for the purpose of understanding a larger class of (similar) units” (Gerring 2004, 342). Case studies help students grapple with complex issues, examine interrelated processes, discuss decision making in difficult issue areas, and engage in critical thinking.

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findings with the whole class, and concluded with a large group discussion on a few related, open-ended questions tied to the course’s overall learning objectives.

**ASSESSMENT OF ACTIVE LEARNING STRATEGIES**

I examined students’ survey responses about how these six active learning activities contributed to their learning. Although I did not ask students to complete a learning styles inventory, I learned a great deal about their preferred activities from their survey responses.

Table 2 shows students’ responses to the quantitative questions about which active learning activities helped them learn. Large group discussion was the most preferred active learning method, with 87% of students agreeing that this activity helped them learn. Simulations trailed well behind, with 64% of students agreeing that this activity helped them learn, followed closely by case studies (63%). A majority found small group work (54%) and enhanced lectures (50%) helpful, but only 36% of students found in-class writing helpful.

Students’ qualitative responses likewise demonstrate that a majority of students felt that large group discussions, simulations, and case studies were the most helpful activities, and that lectures and in-class writing were less helpful. One student wrote, “the discussions are interesting and stimulating,” while another noted that the best aspect of the class was “listening + participating in discussions. Very interesting.” Another commented that her favorite class activity was “debates! They were so fun and helped a lot.” Another student found the “policy simulations very fun and informative.” Almost as many students agreed that they learned as much from case studies as they did from role plays. As one student commented, “I enjoyed the case studies and learning about the different aspects and effects of globalization.” However, note that some students found other activities useful. One of the 50% of students who found enhanced lectures helpful commented that she most enjoyed the “PowerPoints on writing” that accompanied enhanced lectures on key writing skills. Another student, part of the 36% of students who found in-class writing helpful, noted that one of the best aspects of the course was “peer editing,” which generally happened in class.

Simulations sparked the broadest disagreement among students, shown by the question’s standard deviation (1.17), the highest of any in the survey. The strong division in opinions is also shown in students’ qualitative responses. Many students found simulations helpful and enjoyable. One student put a 6 on the quantitative evaluation form, and others repeatedly circled the 5 and added exclamation marks to show their enthusiasm. But 36% of students did not agree that role plays helped them learn. One student explained that while the simulations “were often fun and in some ways helped provide perspective, [they] otherwise were uninformative.” Although some students appreciated that role
CONCLUSION
This article demonstrates that students have diverse preferences about which active learning activities best promote their learning and that not every activity promotes learning for all students. I discovered that, despite first impressions, only 64% of students agreed they learned from simulations, whereas 87% of students agreed they learned from large group discussions. Given that simulations are the most commonly used and evaluated active learning strategy in political science, it is surprising that there is sharp disagreement among students about whether simulations are the best way to promote learning. Remember that students both can and do learn from activities that do not mesh with their learning preferences and that not every student will be engaged by each active learning activity. Although we cannot engage all students with every class activity, by adding more active learning strategies to our teaching repertoires we can design our courses to appeal to students with all learning styles at least some of the time.

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REFERENCES