From Chalkboards to ChatGPT: Trends and the Future of Active Learning in Political Science Classrooms

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Abstract

The role of active learning – student-focused activities, rather than teacher-centered approaches to classrooms – has become a key cornerstone of scholarship in teaching and learning in political science education. Studies contend that such practices can help with student learning and help students achieve other learning objectives such as deepening critical thinking and oral communication skills. Yet, while scholarship in this domain has expanded significantly over the past 10 years, however, most syntheses of the state of the field are from pre-2015. There is reason to believe that approaches to active learning have changed with the advent of new learning technologies in light of the COVID-19 pandemic and artificial intelligence in the classroom, and that instructors can benefit from adapting active learning approaches to these new classroom realities. We provide insights into clear theoretical gaps in our understanding and highlight key next steps for the future of the study of active learning in the political science classroom.

1. Introduction

Active learning, as opposed to traditional lecturing, is an important aspect of pedagogy in higher education, including in political science. In his seminal work, Stice's (1987) contention that "students retain 10% of what they read, 20% of what they hear, 30% of what they see, 50% of what they see and hear, 70% of what they say, and 90% of what they say as they do something" (cited in Baranowski, 2006, p. 33). Research increasingly details the importance of incorporating active learning approaches in political science classrooms. However, others argue for a nuanced approach to broad claims of its effectiveness, for example, in a study of active learning in STEM classes, Freeman et al. (2014) found that active learning promotes learning and retention for students and is more inclusive, but they also found that not all active learning results in positive benefits compared to lecturing (Freeman et al 2014, cited in Hogan and Sathy, 2022). Such studies highlight key concerns about the benefits of incorporating active learning into political science education and its impact on student learning outcomes.

In his 2010 meta-analysis of literature on active learning in political science, Ishiyama (2010; 2013) found that although in-class simulation is one of the most used techniques, evidence for its effectiveness was mixed. Since then, the use of active learning, especially simulations, in political science classrooms has increased. Several reviews of active learning in political science (ALPS) have been published in the decade since (i.e. Blair, 2015; Craig, 2014; Ishiyama, 2010; 2013; Krammerer and Higashi, 2021). While these remain important for scholarship of teaching and learning (SoTL), recent paradigm shifts in education merit a rethinking of ALPS. We contend that there are three central reasons for rethinking ALPS. First, university classrooms were transformed because of the COVID-19 pandemic. Students faced financial hardships, experienced a lack of social connectedness and belonging, and access issues that impeded academic

performance (Lederer, et al., 2021). While some of the immediate effects of the pandemic may be abating, there is no doubt that the pandemic has caused a shift in classrooms, and pedagogy practices, throughout the country. Further, the students entering universities now are the ones who were most affected by the pandemic in the formative years of their learning. Understanding how instructors have approached active learning in the past, and are approaching active learning "post"-pandemic, can help instructors and educators in political science develop comprehensive lesson that increase student retention and engagement, and mitigate potential negative consequences of the pandemic on learning, and as students, professors, and universities alike recover from the pandemic, how to increase student engagement and learning has increasing relevance.

Second, the advent of Artificial Intelligence, and especially Large Language Models like ChatGPT, require a rethinking of teaching, learning, and assessment to adapt to the new realities of the classroom. To do so, it is important to understand broad trends in ALPS such that teaching and learning can be adapted to new realities of the classroom. We contend in the discussion that active learning approaches can be readily adapted to incorporate AI *and* help towards promoting assessment that activates the potential of AI while minimizing its abuse in the form of cheating on papers and essays.

Third, in many ways related to the first two, research on "what works" in political science education has important consequences beyond the political science classroom. In an overview of political science learning, Sloam (2010) noted that "[u]nderstanding how conceptions of politics are formed is for explaining the cognitive processes that can make political participation attractive or even rational for young people" (p. 326). Learning about political science is more relevant than ever before with the rise in fake news and current threats to democracy that many countries around the world now face. Such new realities are shaping the world, and professors need to be able to

respond to these within the political science classroom. Adapting our teaching, including commonly used active learning strategies, will be necessary in political science classrooms to

In this paper, we take up this gap in our understanding of the practice and effectiveness of active learning in political science since 2010. We take Ishiyama's (2010; 2013) work as a starting point and extend his work through 2024. Following his lead, we review articles from *PS: Political Science and Politics (PS),* the *Journal of Political Science Education (JPSE),* and *International Studies Perspectives (ISP)* that focus on active learning in political science classrooms. Since 2010, PS has published 27 articles directly related to active learning, ISP has published 61, and JPSE has published 353 articles on the topic. We review and categorize these articles to provide an updated overview of AL practices in university political science classrooms.

This article proceeds as follows. First, we define active learning and outline the debates surrounding its current effectiveness, outline challenges faced in university classrooms post-2020, and detail why we believe rethinking and adapting ALPS is necessary for future pedagogy. Second, we describe the methods we used to review the literature on active learning in the political science classroom. Third, in the findings section, we describe current trends in pedagogy research for active learning in political science, including types of activities, the methodological approaches and gaps in learning about the effectiveness of such techniques in the classroom, and key outcomes of interest across the studies. We also detail innovations in active learning for both online learning and its potential adaptability with regards to AI in the classroom. Fourth, in the discussion, we highlight key insights and gaps in our understanding of active learning in political science. Finally, we conclude by offering next steps for pedagogical research and active learning in political science.

2. Active Learning in Political Science (ALPS): Past, Present, and Future Needs

At its core, active learning involves students participating in the learning process rather than just listening to a lecture. In a blunt formulation, Bonwell (2003) contends "active learning involves students in doing things and thinking about the things they are doing" in the classroom (p. 2, cited in Ishiyama, 2013, p. 118). Although definitions vary, they share the core idea that active learning requires student engagement in the learning process, covering a variety of approaches, including problem-based learning, service learning, experiential learning, group projects, peer instruction, hands-on activities, think-pair-share discussions, and, most commonly in political science, simulations.

Early scholars of active learning contend that it is essential for acquiring skills and knowledge in the social sciences and humanities (Kolb 1984; Bonwell 2003; Sloam 2010). However, many have since argued for a more nuanced understanding of active learning's effectiveness in the political science classroom, noting that there is still a place for more traditional forms of teaching (DeNeve and Heppner, 1997 provide an early call to action). For example, Omelicheva and Avdeyeva (2008), in a study comparing lectures and debates, found that lectures slightly improve basic knowledge retention, including memorization, recall, and recognition of information: while debates enhance students' comprehension, application, and critical evaluation skills. Other early scholars of active learning in political science noted the benefits of active learning in political science and history, while arguing that these techniques may not be the most "efficient" for imparting key subject matter and enhancing retention (Carpenter 2013; McKeachie 1986).

The scholarship on ALPS has skyrocketed in recent years, as seen in Figure 1, which shows the overall trends in "active learning" across the three journals that regularly publish research on

political science pedagogy from 2010 to 2024: *PS: Science & Politics (PS)*, *International Studies Perspectives (ISP)*, and the *Journal of Political Science Education (JPSE)*. We see a steady but slow increase in articles focusing on active learning from 2010 to 2020, followed by a noticeable jump in 2021, though the trend levels off again in 2022-2024. This jump is exclusively from the *JPSE*, which published an online special issue including a section on *Simulations, Games, and Active Learning to Teach American Politics and Theory* which included 23 articles.

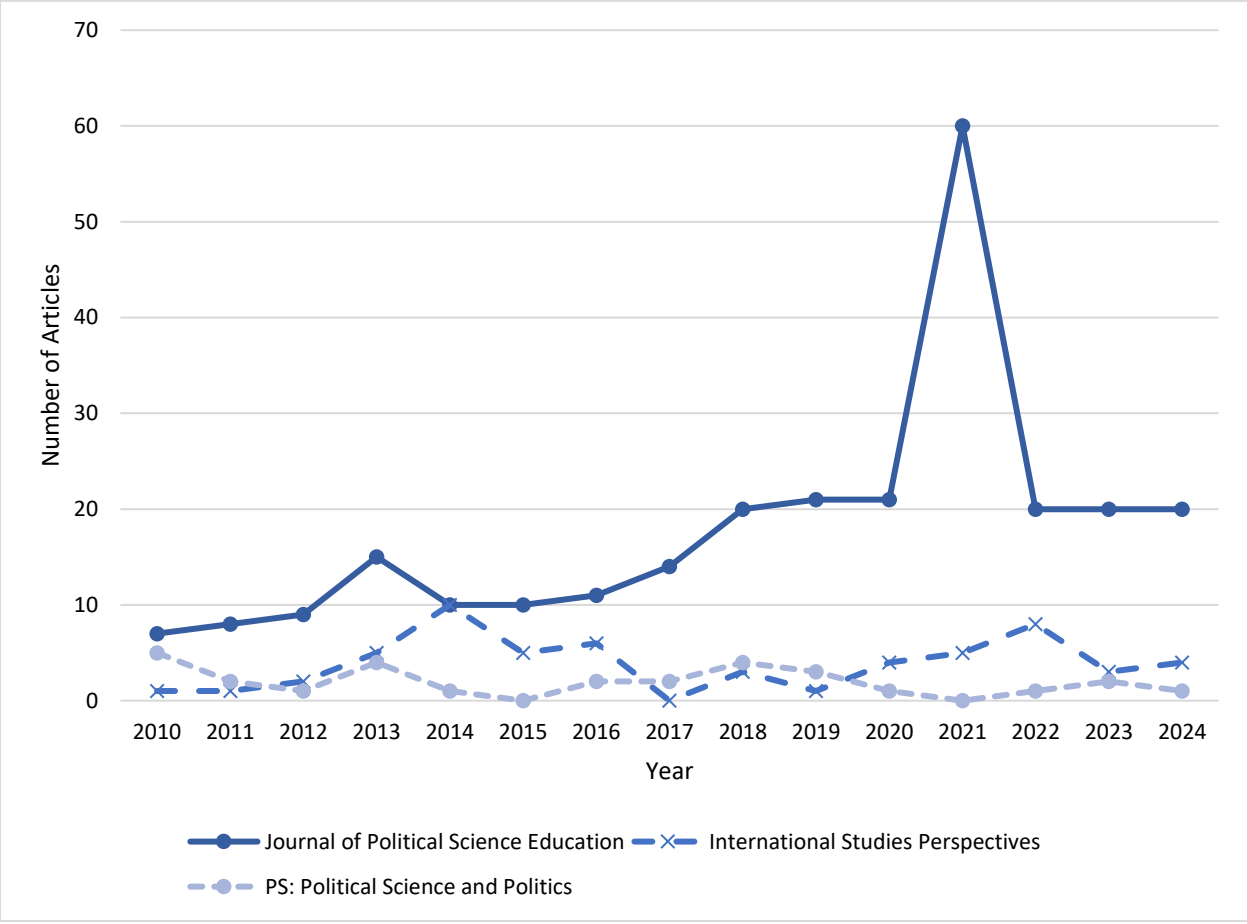

Figure 1. "Active Learning" in Political Science Education Journals (2010-2024).

Kehl (2002) produced the first major review of political science teaching and learning in higher education. Other reviews are pre-2010 or focus on certain aspects of political science education, such as simulations research (Baranowski and Weir, 2015; Krammerer and Hiagashi, 2021). Table 1, below, summarizes the available literature reviews on active learning/scholarship of teaching and learning in political science, and highlights how this review differs and contributes to our understanding of the state of the field. Notably, while there is a detailed literature of what active learning *is* and why it is useful in university classrooms, there have been consistent calls to delve deeper into both the effectiveness of active learning in the classroom and for a more nuanced understanding of these effects. Moreover, while recent studies have begun to disentangle the differential impacts active learning may have across different student groups (for example, minority and first-generation students, and differential impacts across genders), none of the reviews available directly focus on these heterogeneous effects. While we begin to tackle this here, future research (see: Dunlop and Way, working paper), explores these impacts in greater detail.

Table 1. Active Learning in Political Science Literature Reviews from 2010-2021.

Authors	Year	Topic	Years Covered	Number of Articles	Journals Reviewed	Description
Ishiyama	2010	Active Learning in Political Science	2005-2009	134	JPSE, PS, ISP	Descriptive; IR simulations most common
Asal and Kratoville	2013	Simulations	N/A	N/A	N/A	Constructivist approach to IR simulation development; identify need for goal setting, relating back to theory; keeping students engaged. Theory building.
Ishiyama	2013	Active Learning in Political Science	2005-2011	176	JPSE, PS, ISP	Focus on simulations; descriptions of other active learning techniques used
Kollars and Rosen	2013	Simulation design	N/A	N/A	N/A	Generate a typology of IR simulations: Organic Formative; Illustrative Formative; Organic Summative; Illustrative Summative; Hybrid
Craig	2014	Teaching and Learning in Political Science	2005-2012	508	JPSE, PS, ISP, EPS, Politics	Simulations/IR as most commonly studied topic/subfield
Blair	2015	Teaching and Learning in Political Science (US vs. UK comparison)	N/A	73	JPSE, PS, ISP, EPS, Politics, Teaching Public Policy	Articles focus on course design; observational assessments
Baranowski and Weir	2015	Simulations	2005-2013	27	JPSE	Focus on methods of evaluation – pre/post as most common evaluation
Krammerer and Hiagashi	2021	Simulations	2005-2020	788	JPSE; PS	IR simulations are most common
Murphy et al.	2023	Active Learning in Political Science	2000-2019		JPSE, PS, ISP, EPS, Politics	

2.1 Looking Beyond What Works: Paradigm Shifts in Education post-2020

Knowing "what works" in ALPS is only part of why we undertook this review. Three central factors have fundamentally shifted both the purpose and scope of education dramatically in the past five years: the COVID-19 pandemic, the advent of artificial intelligence, specifically in the form of large language models (LLMs) like ChatGPT, and the rise of fake news and subsequent democratic backsliding. Incorporating active learning into political science classrooms has the potential to both mitigate the effects are our students are still facing as a result of the pandemic, prepare our students to understand and recognize threats to democracy including fake news, and leverage LLMs to prepare students for their future career goals and beyond.

First, classroom learning was fundamentally disrupted in the COVID-19 pandemic and evidence suggests that the school closures were particularly impactful on student learning. For example, standardized test scores indicate the scale and scope of learning loss resulting from school closures: the national average for the ACT was 19.8 in 2022 – the first time the average composite score was below 20 (out of 36) since 1991 (Jaschik, 2022), and the biggest year-over-year decrease in average composite score (-0.5) since 2012 (Nam, 2022). Likewise, despite more students taking the SAT in 2022, the average score declined to 1050 from 1060 in 2021 (ibid). Further, student dropout rates in universities are higher than pre-pandemic rates (Krupnick, 2022), underscoring the need to develop mechanisms to increase retention and mitigate dropout in the post-pandemic classroom. Research identifies several reasons for the increased dropout rate, including increased anxiety and isolation as well as caretaking and employment responsibilities external to schooling (Krupnick, 2022). The aftermath of the COVID-19 pandemic also exacerbated many of the factors affecting student mental health, endangering student learning

outcomes and putting future prospects that depend on college accreditation in jeopardy (Lederer et al., 2021).

These shocks also exacerbated many existing education inequalities across the United States – especially those between high- and low-income students (Lederer et al., 2021), and for students from minority communities. While 2020 enrollment in colleges dropped 13% overall, enrollment dropped 29% for students from low-income high schools, and Black, Hispanic, Native American student return rates were lower than those of White students (Cheng, Law, and Pinder, 2021). While there is some evidence that college enrollment rebounded post-2022, with SAT and ACT test-takers returning to pre-COVID levels in 2022 (Jaschik, 2022), though incoming students will continue to feel the effects of the pandemic shutdowns for years to come. Beyond anticipated learning loss and lower retention rates, the lockdowns and online learning environments have specifically impacted aspects of student learning such as communication, problem-solving, and critical thinking skills, which are often learned in the classroom. These are particularly essential in political science classrooms, and the social sciences generally. Active learning initiatives are particularly poised to increase such skills in the classroom, if incorporated with the goal of meeting the needs of today's learners.

The second fundamental shift in how students learn arose with the release of artificial intelligence models, most notably ChatGPT. Concerns have merged regarding plagiarism and academic dishonesty, in addition to concerns about the over reliance of ChatGPT in diminishing student critical thinking skills (Ardoin and Hicks, 2024). In response, instructors have changed types of questions and assessments used, asking for students to write assignments in class on paper, or seeking software that blocks or detects AI (ibid). Yet, far from being the end of education or requiring that teachers go back to the chalkboard, other authors encourage the use of AI in order

to activate discussion about information literacy or achieve other learning objectives (Spindel and Ackerman, 2024), moreover other suggest that integrating AI can *foster* critical thinking and enable authentic assessment (Moreira and Hadjipieris, 2024). Indeed, integrating active learning into activities and assessments involving AI is a potential avenue through which current instructors may leverage this new technology to the benefit of students.

More broadly, there are important reasons to consider how we teach political science as a reflection of society – and indeed, the online shift and the emergence of AI in the classroom are related to our broader society. Social scientists and scholars of education have argued for the central role that education plays in democracies (Dewey, 1916). In environments where fake news and misinformation abound, it is incumbent on political science instructors to equip students with the skills to critically evaluate research and information they receive in their daily lives (Kaufman, 2021). ALPS classroom activities may allow students to engage critically in classrooms, through discussion and group work, in addition to giving students the opportunity to develop data analysis skills to assess information. Such activities thus have the ability to combat fake news, polarization, and indeed threats to our democracy. As Sloam (2010), noted "research into how political science education takes place can illuminate the relationship between education, society, and politics" (p. 330).

Thus, understanding "what works" in political science has important implications not only for learning outcomes themselves, but can also mitigate the effects of learning loss and decreases in student retention caused by the COVID-19 pandemic, and activate students for the new realities of AI and LLMs in our world, but also has broader implications for the relationships between education, political science studies, and democracy. With the push towards ChatGPT and AI in classrooms, understanding how SoTL has shifted with regards to active learning approaches over

the past 15 years, in addition to exploring new developments in the field is important for political science instructors as we look towards the new realities of our classrooms.

3. Methods

This study reviews literature on active learning in political science (ALPS) classrooms and looks toward the future for how these can best be employed. We specifically kept this term broad – looking at studies that incorporate a variety of techniques in "active learning" and approaches in the classroom. Our review considered articles that included "active learning" as either a key word or in the title. Following strategies from previous literature reviews, we focused exclusively on three journals: the *Journal of Political Science Education (JPSE)*; *PS: Political Science and Politics (PS);* and *International Studies Perspectives (ISP)*.

For each article, we coded the main subfield of the article: American, Comparative, International Relations, and Theory; in addition, we included categories for General Teaching (Pedagogy – no subfield); Civic Engagement; and Methods.[1] Our second category detailed the type of active learning technique detailed in each article. Finally, we included a category for assessment techniques, recording whether the researchers added any formal empirical strategy for assessing the effectiveness of the approach. If there is such a measure, we also noted whether the technique had a positive, negative, or neutral impact on their stated outcome. We also noted whether the study had any differential effects considered across, for example, gender or race, where available. We include the "descriptive" category for any article that simply describes the

[1] Coding categories are similar to those identified in Kammerer and Higashi (2021).

activity without including any assessment details. We also include to categories to account for whether the paper discussed activities in online learning (especially with reference to COVID-19) and, later, added a search term for AI (LLMs and ChatGPT) as this new technology came into prominence after we began this project. Details of the categories and codes can be found in Table 2.

Table 2. Coding Categories.

Sub-field	Active Learning Codes	Primary Method of Analysis
American	Active Learning (General)	Assignment/Exam Scores
Comparative	Collaboration	Focus Groups
International Relations	Debates	Mixed-Methods
Theory	Discussion	Observations
Methods	Films/Movies	Pre-/Post-Test
Pedagogy	Flipped Classrooms	Qualitative Case Study
Civic Engagement	Novel/Stories/Non-Traditional Texts	Quasi-Experimental Design
	Online Learning	Randomized Control Trial
	Pop Culture (Other than Film)	Student Surveys
	Problem-based Learning	Teacher Surveys
	Group Projects/Project-Based Learning	Descriptive
	Service Learning/Civic Engagement/ Experiential Learning	
	Simulations/Games/Role Playing	
	Student Response Systems/Polling	
	Writing/Reflections	
	Other	

We excluded several types of articles in this analysis. First, we excluded articles relating to whole-course design and curriculum restructuring at the university level. Although these are important, and indeed crucial in terms of shaping learning objectives from the top-down, whole-course/department initiatives take a long time to embed and require significant buy-in from faculty. Second, several results to our initial searches focused on high school students; however, we chose to limit the scope of the analysis to learning in the university classroom. Third, we excluded articles that focused on active learning for professional development of teachers/professors, including incorporating active learning into courses for attaining tenure. While these are important for the state of the field, in this article we are focused on student learning, rather than the importance of

active learning for professional reasons. Finally, it should be noted that these studies, with very rare exceptions, focus on political science education in the United States (outside of the United States, other key countries represented in this analysis are Canada and the United Kingdom). While countries around the world face similar challenges, education pedagogy research (especially in high education) almost exclusively focuses on college and university campuses in the United States.

4. Findings

4.1 What Types of Active Learning are used in Political Science Classrooms?

In his review of active learning techniques in political science, Ishiyama (2010) categorized several different types of active learning in political science: simulations, service learning, experiential learning, computer-mediated activities, problem-based learning, group projects, and discussion, though by far the most common of these approaches is simulations, with 136 articles detailing simulations used in the political science classroom. Figure 2, below, details the types of active learning described in the reviewed studies covering 2010 - 2024. Simulations are by far the most commonly discussed active learning technique in political science. The second most common category, again in line with Ishiyama (2010), is service learning/civic engagement. It is also important to note that while many of the articles we reviewed focused on one active learning approach in the classroom, combining multiple approaches to active learning is important for student success. Bromley (2013) notes that different activities appeal to different learning preferences and that bringing in multiple approaches can improve learning for all students (p. 818). Others note that active learning do not occur in a vacuum, with multiple active learning activities interacting with each other – "the gains from one activity [reinforce] the benefits and gains of the others, providing momentum over the semester for students to activate different academic and

intellectual skills" (Hendrickson, 2021, p. 321). That is, while the specifics of ALPS have changed, the dominant forms of ALPS have not changed that significant since 2010.

While popular culture has always been used in classrooms, our data show that incorporating popular culture into active learning techniques has become more common in recent years. Specifically, ten studies detail the use of film in classrooms, in addition to leveraging music, television, or other forms of art into classrooms as a means of illustrating key themes and topics. For example, the *Godfather* trilogy (Saltzman, 2019) and the 1963 adaptation of *Lord of the Flies* (Mayborn, 2021) have been used to illustrate concepts such as international anarchy, rules and institutions, and the security dilemma. Likewise, Salter (2014) and Holland (2016) use episodes of *Survivor* and *The West Wing* to illustrate the prisoner's dilemma and student foreign policy beliefs, respectively. Indeed, many of the articles on popular culture in the classroom focus on international relations topics (see James, 2021; Brandle, 2020).[2] Another interesting use of pop culture was including music from the *Hamilton* musical to encourage discussion about critical moments in American history (Adler, 2018). We note that simply using non-traditional texts such as novels, musicals, TV shows, or movies may not directly count as active learning. Rather, the use of pop culture materials needs to be combined with active learning techniques such as student-led activities, games, simulations, or peer-teaching to qualify. For example, Hunt (2019) describes designing a class which seeks to combine the use of pop culture materials on zombies and active learning pedagogy to combine two strategies that have featured prominently in recent discussions about increasing student engagement.

[2] Brandle (2021) notes that in the student response surveys given at the end of the course, students responded that they liked the use of games to learn about IR, though were less likely to respond positively to the use of movies and television in class (though results were improved as the instructor ran the course a second time).

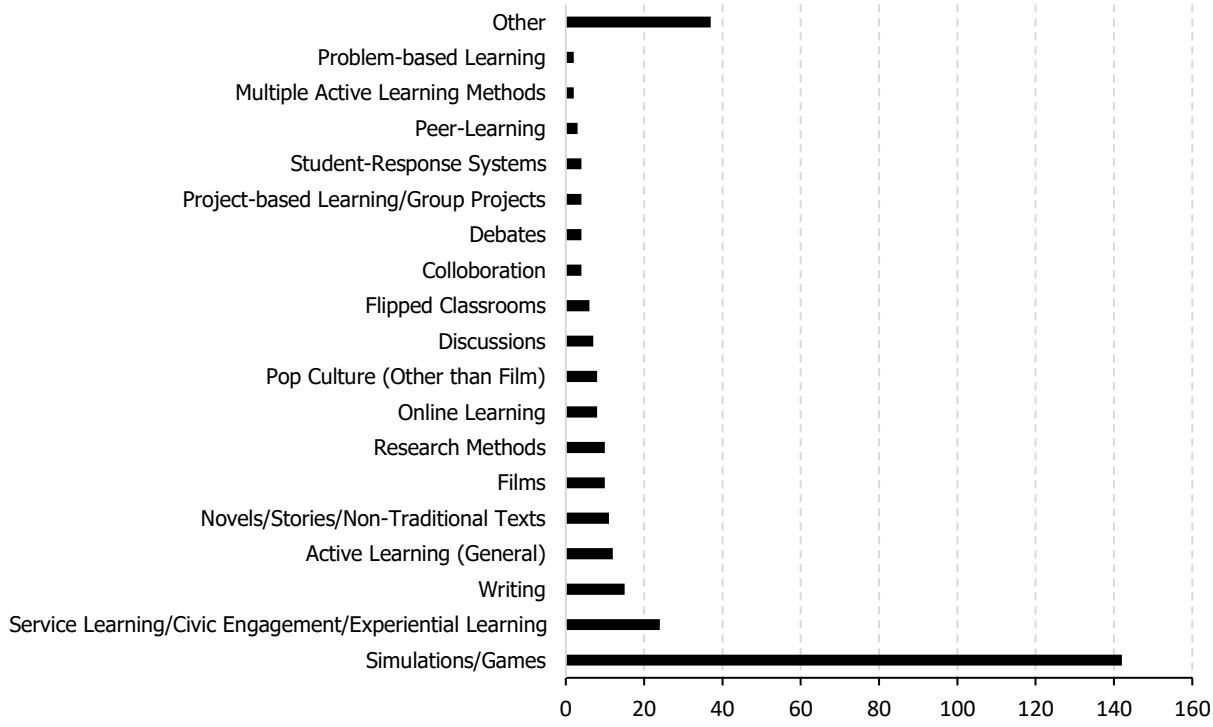

Figure 2. Active learning approaches in the political science classroom

Other commonly used techniques include discussion and/or debates in class – something that rests "at the core of politics," as Andrew Oros (2007, p. 295) noted in a seminal article on the role and importance of incorporating debates into political science classrooms. Oros, along with others (Omelicheva 2007; Omelicheva and Avdeyeva 2008) emphasized the importance of structure within the classroom for successful debates: setting appropriate tasks, managing the classroom effectively, and coordinating the student group interactions effectively (p. 294). However, as Figure 2 illustrates, in recent years relatively little work has specifically focused on the role of debates in the classroom. Still, a few recent studies highlight their importance for students' learning critical thinking skills and oral communication skills (Abernathy and Forestal, 2021; McMonagle and Savitz, 2023). These also shift from asking *whether* debates are a useful pedagogical tool to assessing the relative strengths and weaknesses of different ways of using debates. McMonagle and Savitz (2023), for example, compare the impact of classic structured

debates to that of value-line debates on a battery of learning outcomes. In a similar vein, Abernathy and Forestal (2021) explore the relative effectiveness of moderated dualistic debates and an unmoderated pluralistic debate format on the development of civic skills and support for democratic values. However, Sanjuan and Mantas (2022) find that the inclusion of debates about controversial issues did not increase political interest; this study also looked at the effects across student subgroups and likewise found no significant treatment effects for debates. Thus, this important skill in political science education has mixed results in terms of their efficacy in skills development outside of the classroom.

Finally, in recent years several authors have emphasized combining various forms of writing assignments with active learning (12), including asking students to write fictional pieces (Ramel, 2022) and postcards (Kowalewski, 2022), briefing notes (Chagas-Bastos, 2019), and short papers (McMillan, 2014). Chagas-Bastos and Burges (2019) emphasize the potential of using briefing note assignments to build transferable skills in students by using active learning activities as a trigger. In a similar vein, Ramel and Vergonjeanne (2023) describe combining active learning exercises such as games with non-traditional assignments such as fiction writing in an international relations course. Their teaching experiences demonstrate how incorporating creative writing into the curriculum can enhance active learning by making learning more interactive, engaging, and reflective of real-world complexities. McMillan (2014) argues that frequent, short writing assignments (as opposed to the traditional research paper) can connect to active learning exercises such as role-playing to enhance student ability to synthesize information, provide evaluation, and develop practical writing skills. Combining non-traditional materials with active learning, Kowalweski, Bartlomiejski, and Kowalewska (2022) use postcards as a tool for teaching about urban politics. By selecting, analyzing, and designing postcards, students actively work with and

interpret visual data, applying what they have learned in readings to interpret postcards as a creative way of connecting theory and practice. These papers all illustrate a trend of moving away from simply describing or justifying active learning pedagogies to exploring ways to integrate active learning exercises with specific types of assignments and assessments. These types of activities, as we discuss below, are ripe for adaptation to AI, with the incorporation of effective prompting and appropriate structure.

4.1.1 Simulations

Most often scholarship on ALPS classrooms has centered on simulations; in fact, the *Journal of Political Science Education* now has a section devoted to "Simulations, Role-Play, and Games," and APSA's *Teaching and Learning Conference* contains a track on simulations and games. Indeed, they continue to dominate political science writing on active learning pedagogies, as shown in Figure 2. Some contend that these are important aspects of political science education, with Kammerer and Higashi (2021) arguing that "simulations should be an integral part of political science instruction" (p. 142). However, others, like Bromley (2013), note that simulations are not the only way to incorporate active learning into university classrooms, with students having clear and diverse preferences for different types of active learning in the classroom. In their review of *JPSE* and *PS* articles from 2005 to 2020, Kammerer and Higashi (2021) found that simulations are particularly common in the International Relations subfield and note that other subfields have been slower to adopt simulations their classrooms. The findings of this review confirm this, with 79 studies on simulations in international relations, more than in all other sub-fields combined. Figure 3 breaks down simulation research by sub-field.

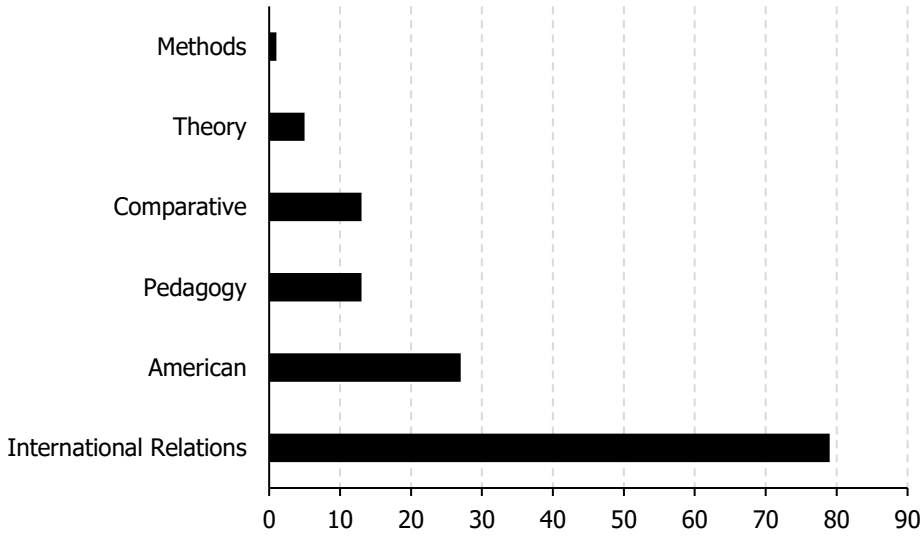

Figure 3. Simulation research by discipline.

Commonly studied simulations include Model UN (e.g., Coughlin, 2013; Engel et al., 2021; West and Halvoron, 2021; Raymond, 2010), Zombies (e.g. Blanton, 2013; Brandle, 2020; Horn, Rubin and Schouenberg, 2016; Hunt, 2021), the Prisoner's Dilemma (e.g. McCarthy, 2014; Salter, 2014), and Statecraft (e.g., Cox, 2021; Carvalho, 2014; Kaftan, 2021; Keller, 2014; Raymond, 2014; Saiya, 2016). However, many other studies include newly designed games and simulations, such as The Brinkmanship Game (Haun, 2022) and the Syrian Civil War Simulation (Ben-Yehuda, 2021), or illustrate key aspects of US Congress (Battaglini, 2021), and Moot Court (Kammerer Jr. 2018; 2020; 2021). Some scholars in IR have created simulations addressing contemporary issues, such as Posch's (2021) development of a simulation designed to replicate the thin institutional environment in contemporary East-Asia as role-playing students struggle to resolve territorial disputes and achieve cooperation, or Orr and Buhr's (2020) development of a simulation of international climate negotiations. Although slower to adopt simulations than IR, both political theory (Gorton and Havercroft, 2012; Perry, 2020) and methods scholars (Kollars, 2017) have begun to develop them in recent years. Perry and Robichaud (2020) emphasize the

value of simulations in teaching normative political theory by developing exercises that provide students with practical decision-making experiences that bring ethical theories to life, building in structured decision points, feedback loops, and randomization devices to create an immersive educational experience. Kollars and Rosen (2017) argue that simulations and games are effective tools for reducing student anxiety about methods courses and increasing student engagement. They introduce games designed to teach students about hypothesis testing, data analysis, and interpretivist methods, and report that students playing the simulations find the material less intimidating and more enjoyable. Overall, although research on simulations is still dominated by IR in 2010-2024 publications, scholars in other subfields have started to adopt them and to develop original simulations. Bromley's (2013) writing on moving beyond simulations to incorporate different types of active learning into our classrooms, given that each student learns differently, and thus incorporating different approaches may prove beneficial in the long run.

4.2 Online Approaches to Active Learning

An additional component of our review includes the incorporation of active learning into online learning forms. Only three articles from 2010 to 2019 met our criteria for online learning from *JPSE*. Ramsey, Evans and Levy (2016) offered an initial push for hybrid learning in graduate seminars. Rothgreb (2018) found little difference in the ability of students to recall factual knowledge with the inclusion of online discussion groups in a class; this contrasts to Williams and Lahman's (2011) article which found that online discussions increased their capacity for reasoned discourse. In a *PS: Political Science and Politics* article, Sabin and Olive (2018) offered innovative methods for incorporating social networks into learning. These first forays into online learning as

a tool for ALPS showed the complexity of measuring student outcomes in these online environments.

Post-2020 searches for online learning yield 36 articles from JPSE, though including "active learning" as a search term reduced the number to nine that met our search criteria. This is not surprising, as the COVID-19 pandemic forced the shutdown of universities across the United States, most universities switched to online learning, which required quick adaptation of tools and methods to the online environment. Most commonly, articles focused on online learning focused on discussions and discussion boards—during COVID this became a common tool throughout lectures as teachers tried (often in vain) to replicate in-person learning. King et al. (2021) note that (even before the pandemic) online discussion forums were being used in university classrooms, due to the "ease with which forums can be populated, the ways they can give students a more dynamic way to interact outside the classroom" (p. 725). In their 2021 article on the value of online discussion, they note that "discussions are particularly valuable when thinking about political issues, which are often value laden. Successful students can use political science as a lens through which to engage with political phenomena… we believe discussion forums give students the opportunity to improve their critical thinking skills by applying their knowledge to important topics within the discipline." (p. 725).

However, with time more articles have come out to showcase the range of activities that can be done even in online courses, beyond simple discussion forums and breakout rooms. For example, Fazal and Sanchez (2022) detail a course-long online simulation in international negotiation with ongoing crises; Bachner and O'Byrne (2021) discuss how text analysis, survey research, and AI can be taught in online environments. These, amongst others, have highlighted the creative nature of teachers in political science. Classrooms now engage with many such tools,

with students not only being asked to attend in person lectures, but also engage in discussion boards and other online activities throughout their time in university classrooms. Moreover, online classes still exist in universities. Thus, these initial writings on integrating active learning into online PS courses have the potential to shape where teachers go next.

5. Looking Forward: AI and the Future Active Learning

One of the biggest changes facing active learning in political science has been the development of artificial intelligence, and specifically post-2022 tools like ChatGPT, which are becoming necessary for student learning and engagement, in addition to helping students prepare for their future employment. While not initially in the scope of this literature review, it is important to consider the implications of these new technologies on political science education. Two recent publications detail the current impact of AI on political science education, and likely potential future avenues (Michels, 2024; and Wu & Wu, 2024); another considered how AI tools can be leveraged in the classroom for equity and accessibility (Cantwell-Chavez & Davis, 2024). No studies on "active learning" directly reference AI, though this will likely change as AI becomes more prevalent in the classroom.

There are however, two studies that can be used as baselines for thinking about *how* active learning can be incorporated into this new age of instruction in political science. Ardoin and Hicks (2024) showcased the concerns that faculty had with regards to ChatGPT and offered suggestions, including reflections and asking ChatGPT to generate alternative perspectives as ways to address and combat misinformation. Though not in the three journals we focused on for this paper, Moreira and Hadjipieris (2024) also described pedagogical innovations that can be used to foster critical

thinking and deliver authentic assessment through the use of ChatGPT in the classroom—for example by critically analyzing and improving upon AI-generate outputs.

6. Conclusions and Implications

From its inception, proponents of active learning have touted its potential to help students across a variety of learning outcomes. Yet, even in his seminal piece, Kolb (1984) noted that while "Active learning builds on the foundation of critical learning, where new information can conflict with previously held beliefs and call for their transformation or rejection… [t]he experience itself may not be enough to learn… since the novelty, goal orientation, emotional involvement, and other elements of role-plays that contribute to high motivation create overexcitement at the expense of the analytic detachment necessary to complete the learning cycle" (Kolb, 1984, cited in Mikalayeva, 2016, p. 225-226).

Our initial goal with this paper was to explore how teaching and learning in political science has shifted over the past decade, and especially post-2020, and to understand whether these trends have impacted our own understanding of the effectiveness of active learning. We were, indeed, skeptical of some of the lofty claims set out by researchers, including in fields beyond political science. Our findings, as we elaborate here and in other work (Dunlop and Way, working paper), do show some reasons to be skeptical; they also show that there is promise for these techniques. Active learning approaches can be enhanced by incorporating structured, reflective elements that encourage deeper engagement with political science concepts. Additionally, the use of AI should not be seen as a threat but as a tool that, when properly integrated, can support critical

thinking, analytical reasoning, and collaborative learning. Moreover, though beyond the scope of this paper, incorporating active learning into classrooms is fun for teachers and instructors, too.

Yet, with the advents of online learning, ChatGPT, and the rise of fake news, active learning in political science took on a more important role. As we discussed above, these crises have led to a fundamental rethinking of education, teaching and learning, and assessment. Perhaps a focus on ALPS is exactly where scholarship needs to be in this moment. Many of the activities discussed in this paper are adaptable to the new learning environments in which AI features prominently. AI presents an opportunity to rethink active learning in ways that promote both engagement and academic integrity. While concerns about academic dishonesty persist, AI-driven tools can be leveraged to foster inquiry-based learning, enhance research skills, and provide personalized feedback. Simulations incorporating reflective components are "AI-proof" in that it is hard for ChatGPT to specifically discuss activities from a classroom. Moreover, AIs are particularly creative and generating new ideas for simulations and activities in class, as well as clear and specific assessment criteria for them, is likely to become more and prominent as professors incorporate AI into their own practice. Rather than replacing traditional active learning methods, AI has the potential to complement them—offering innovative ways to engage students while ensuring that core pedagogical goals, such as critical thinking and problem-solving, remain at the forefront of political science education. Likewise, writing activities and those that ask students to be creative are important places where the pedagogical importance of ALPS can be adapted into AI; AI is also useful for developing rubrics for marking these types of activities.

Active learning is not a static concept but an evolving pedagogical practice that must adapt to the changing landscape of instruction in higher education. By continuing to refine our

understanding of what works—and for whom—we can ensure that political science classrooms remain dynamic, inclusive, and responsive to the shifting educational landscape.

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