



Get out of the way! How a simulation changed how I think about teaching, turned on my students, and ruined my other classes.

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### **Abstract**

The paper reflects on over ten years of developing and using a web-based Congress simulation. LegSim is a server-based virtual legislature that instructors and students access via the internet ([www.legsim.org](http://www.legsim.org)). The instructor customizes their dedicated session based on considerations such as class size and available time. Students then populate and organize “their” legislature, before proposing attempting to advance legislation that reflects their personal priorities and the constituencies they represent.

LegSim was originally built to be a capstone activity in a didactic, college-level political science course. It has now become the central activity. In this paper I describe the project’s evolution, pedagogy and how I use it in my upper division college course. I then present some anecdotal and systematic evidence about the learning benefits of project-based curricula such as LegSim. Finally, I conclude by asking (not answering!) how the lessons learned might be applied to other classes, and offer a cautionary tale to anyone interested in educational simulation development.

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Get out of the way!

*I hear and I forget. I see and I remember. I do and I understand.*

Confucius

*"I know that I'm not a real representative, but I have gotten myself so into this class that I feel like I have become one! It's really frustrating to put your heart into something you feel so passionate about and have no ability to help it, but I guess it's all part of the game."*

Student in my U.S. Congress class

**LegSim** is a website that offers all of the features students need to organize and operate their own legislative simulation. The instructor customizes this website via a browser (nothing needs to be downloaded or installed). LegSim is intended as a course supplement and includes assignments and activities designed to direct students towards important questions and lessons about lawmaking using experiential learning principles. LegSim is especially beneficial in larger classes because 1) there is no paperwork to manage, and 2) important dynamics of lawmaking such as agenda scarcity are more likely to be present.

## **1. Background**

In the summer of 2000, I sketched out some ideas for a virtual legislature simulation during a teaching retreat. My vision at the time was pretty limited. I thought that the web would be a more convenient way to manage the mock Congress that served as the one or two week capstone of my lecture-based U.S. Congress course. I really didn't know whether it could be done, but was able to pry a small grant from a forward looking Dean in the College of Undergraduate Education (George Bridges), and LegSim was born.<sup>1</sup>

Those initial funds were used to hire a political science undergraduate to start building a website. I wanted students to be able to draft and share proposed legislation on-line. Once the website started to take shape, my ambitions grew (a perennial problem). Why not also have students create legislator profiles with photos and information about the legislative constituencies they represented and their own political views? How about communication tools that would allow them to share their opinions about bills on-line? Hmmm, what about having committee hearings on line? Could they also vote on-line?

Initial student responses were very positive, and ideas for improvements came flooding in. In 2003 we started to offer LegSim to other college instructors, and (I think) our first high school adoption was in 2005. The development process has been a terrific learning experience. One of the early lessons was that more is not necessarily better. LegSim is a one off experience for

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<sup>1</sup> In terms of the history of the internet, this was a long time ago! The Netscape browser had been launched just 4 years earlier. Facemash, Facebook's predecessor, did not launch until 2003.

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students. They will use it during one semester and then never again. The amount of time available for the simulation is limited. The number of students involved will be much smaller than the number of lawmakers in D.C. and students will begin with much less contextual knowledge. Students need to get up to speed quickly and a complete simulation (one that includes the House, Senate, the President, lobbyists, elections etc.) is impractical. What we ultimately strove for was limited simulation that nevertheless conveyed important lessons about the lawmaking process. We currently encourage instructors to choose either a House or Senate simulation, where each also includes a President with veto powers. Each simulation can then be further customized by the instructor to allow for considerable flexibility in how legislation is managed, or to require students to adhere to hard-wired and realistic procedural steps.

## **2. The Benefits of Simulations**

Engagement is a precursor to learning, not an end in itself. Some lecturers are exceptionally effective at bringing a subject to life in ways that promote retention. But simulations are thought to offer learning opportunities with distinct benefits including systems learning, collaborative learning, and learning through failure.

### **Systems Learning – Integrating Conceptual, Procedural and Operational Knowledge**

Systems learning refers to integrative approaches to instruction where the different parts of a system are experienced in relationship to each other rather than in isolation (Kauffman, 1980; Salen & Zimmerman, 2004). Systems research often distinguishes between three types of knowledge: conceptual, procedural and operational. In the context of a US Congress course, conceptual knowledge refers to what students need to know about the general structure of government, such as federalism. Procedural knowledge refers to what they need to know about rules and norms that are central to the functioning of legislative bodies, such as special rules or vote trading.

Operational knowledge refers to what they need to know about the goals and orientations of other actors in a specific setting, and how to use that information to effectively advance their goals (Bransford et. al., 2000). President Clinton's chief legislative staffer (John Hilley) captured operational knowledge when he noted that, *"to get anything done in Congress, one has to understand the players and what motivates them, as well as who can deliver and who can be trusted. No expert can teach those things; they have to be learned and practiced on the job."* Such adaptive skills are highly valued in all professions (Bransford, et. al., 2000) but they do not tend to receive much emphasis in social science education.

As in real life, the best performers in my class are the ones who have a good grasp of conceptual and procedural knowledge, and can adapt to the demands of specific operational environments. Indeed, the students who perform best on written tests are not necessarily the best students in my U.S. Congress class.

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To introduce students to operational knowledge in the legislative context, I usually assign a ‘kiss and tell’ book. In *Dance of Legislation*, Eric Redman writes about the circuitous progress of a legislative proposal he championed as an aide to Senator Warren Magnuson in the 1970s. He advises readers that instead of developing a fixed strategy based on “how a bill becomes a law” (procedural knowledge), their primary objective should be to keep their proposal alive however that can be accomplished. He offers important insights such as “bills do not advance on their merits alone;” “keep as many balls in the air as possible;” and “identify key points of resistance and attack them with overwhelming force.” (Note how different these lessons about lawmaking are from the conceptual and procedural lessons found in textbooks). Although dated, students still relate to its young person’s perspective.

A more recent book that has also been well received by my students is Robert Kaiser’s *Act of Congress: How America’s Essential Institution Works*. This is a longer book that chronicles the enactment of the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010. It is a modern inside look at lawmaking, warts and all. It will surprise students with how different actual lawmaking is from the civics version they learned in high school.

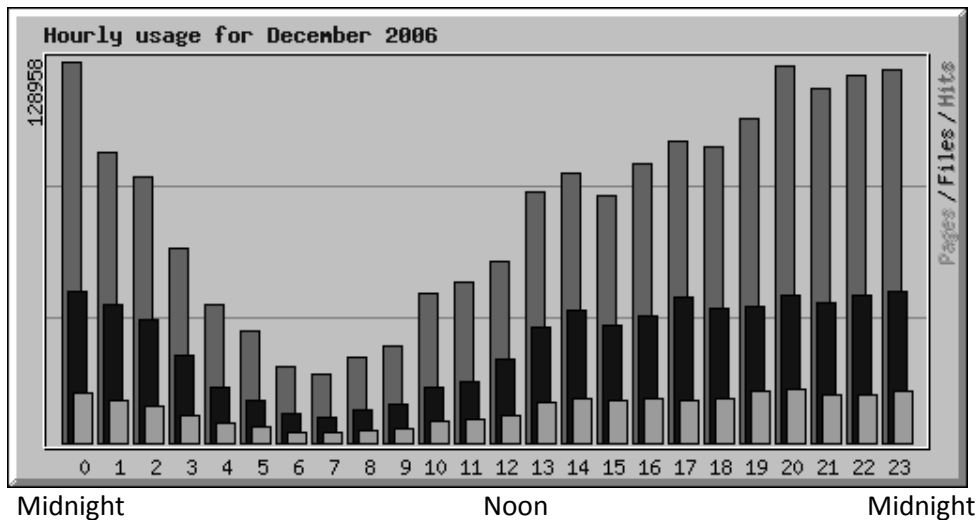
### **Collaborative Learning – Facilitating Learning Communities**

In education parlance, *communities of learners* exist when “independently purposeful” individuals form coherent functional systems for knowledge building (Brown & Campione, 1996). In a legislative simulation, students engage in collaborative knowledge construction in ways not possible with traditional didactic methods (Bruner 1960; Schwab, 1978). They *unintentionally* instruct each other about constitutional principles, institutional design, and legislative behavior and strategy. One student questions whether a proposed policy violates the principle of federalism. Another publicly complains about the Speaker’s decision to refer a bill to one committee rather than to the one that arguably possesses jurisdiction. An effective floor speech appears to alter the momentum in a floor debate and ultimately the outcome of a vote.

Collaborative learning does not just happen. I worry about when my students will begin to treat the simulation as their own. In most years, the tipping point is an event where a significant number of students end up on the losing side of an issue. This first exposure to the stakes involved pleases those on the winning side, but it is those on the losing side who tend to mobilize first. As often as not, the first bill to pass is minority sponsored. This success then serves as a wakeup call for the majority. Peer to peer activity on the LegSim website increases (Figures 1 and 2), and students seek more time to meet during class. It also becomes more difficult to hold their attention during lectures. Increasingly, my effectiveness as a lecturer depends on relating what I want to talk about to what students are thinking about. I can’t just show up with my lecture notes from the previous year and expect to keep their attention. The tradeoff is greater retention because we end up discussing things that students care about.

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**Figure 1. Hours of the day when students are most active on LegSim**



### **Competition - Failure as motivation**

Commercial video game developers are fond of arguing that the competitive nature of games can be a powerful motivator in educational settings. They are usually referring to the instant gratification video games offer in the form of points or advancement to a new level. Importantly, the satisfaction players feel accumulating points or reaching a new level stems from failure. The harder it is to reach a goal, the more rewarding the accomplishment.

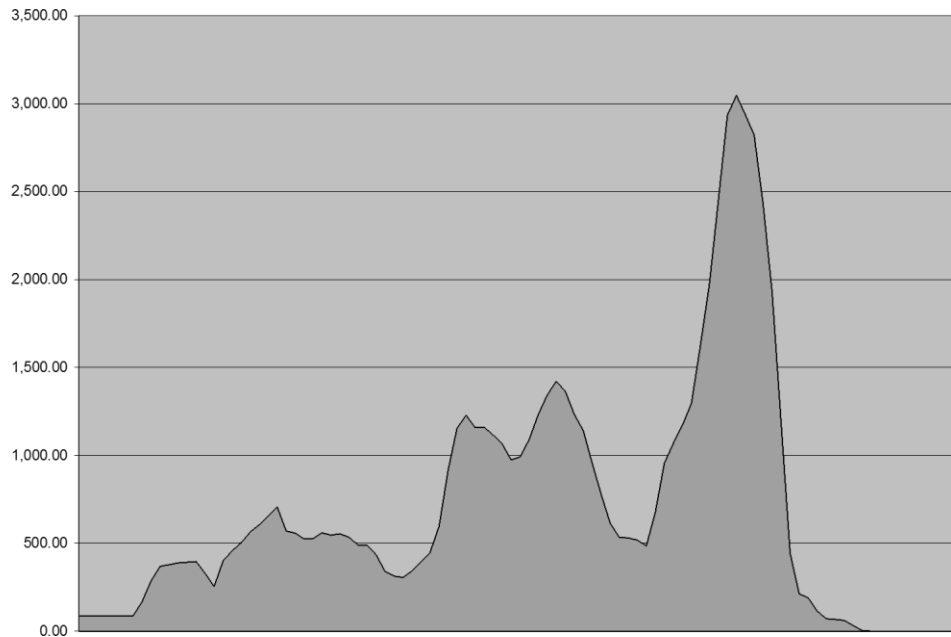
Failure is also an important motivator in LegSim, but in a different way. Students do not compete for points (by sponsoring or cosponsoring more bills for example). Failure comes into play because (like the real Congress) legislative agenda space is a scarce commodity. Students invest a lot in their bills (it is one of the major assignments of the course) and they care what others think about their ideas. In addition, the final essay assignment of the class asks students to talk about their legislative accomplishments and why they should be reelected (worth 25% of their grade).

There is simply not enough time in the quarter to consider all of the proposals sponsored by students. This problem of scarcity is not something that students appreciate initially (despite

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my attention to the subject in lectures!). However, students do eventually learn. By the end of every class, everyone has been sucked into the process by the increasingly animated tenor of in class floor debates and on-line correspondence, by party leaders efforts' to line up critical support, and by the looming adjournment deadline and each student's need to make a compelling case for why they should be reelected (Figure 2).

**Figure 2. Activity on the LegSim website across a 10 week semester (smoothed)**



Note: Y axis refers to the number of daily posts and views in a 100 student course

### **3. Structure of a LegSim-centered Curriculum**

My class begins with a master challenge for students – to show – by the end of the semester - that they have become effective legislators. In the first week of class we review the final written paper, where each student is asked to reflect on their legislative record and develop a strategy for winning reelection. The class content is then structured around helping them meet this challenge through a combination of content delivery (lectures and readings); scaffolding assignments; and experiential learning. The general objective is to provide students with information about legislative topics, and then have them demonstrate their ability to *apply* that information to their own experiences in the simulation.

For example, one of the tasks in the simulation is to make committee assignment requests. Students make their requests in the context of the simulation, and also prepare a written brief explaining the motivations behind their requests. For this assignment, an appropriate response first reviews the role of committees in the legislative process and the considerations that influence lawmakers' committee requests. Finally, the student explains how her own requests

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were shaped by her personal goals, the district she represents and other strategic considerations.

The 10 week quarter class is divided into four parts: *getting started*; *organizing the legislature*; *legislating*; and *wrapping up*. Earlier in the quarter there is more emphasis on the delivery of expert knowledge and less emphasis of experiential learning. As the quarter progresses, the ratio gradually shifts so that experiential learning is the primary focus of the course. Additional details and specific assignments are available on the LegSim website ([www.legsim.org](http://www.legsim.org), click on “learn more”).

### **Getting Started (weeks 1-3)**

- ▶ Expert: Review Final Report Assignment; Constitutional Foundations; Congressional Elections, Legislative Representation and Structure
- ▶ Experiential: Researching and selecting a constituency; My Legislative agenda

In class, the goal is to present *conceptual knowledge* such as constitutional foundations, legislative representation, the dynamics of congressional elections, and the organizational structure of Congress. As I lecture about these subjects, I remind students that the information presented is relevant to both the broader challenge – what does it mean to be an effective legislator? – and to the more immediate assignments they will soon complete.

Student register on LegSim, create their personal legislative profiles and select and describe (on –line) the political characteristics of the constituencies they have chosen to represent. In addition, students develop their legislative agendas, and in the process of doing so demonstrate their appreciation of the concept of representation and the dynamics of congressional elections.

### **Organizing the Legislature (weeks 3-5)**

- ▶ Expert: Legislative process; Committees, Parties and Leaders; Agenda setting
- ▶ Experiential: New members reception; Committee requests; Selection procedures; Leader elections and committee assignments; Committee issues research

In class, the focus is on *procedural knowledge*. I lecture on legislative procedure; the role of committees, parties and leaders. Students also read Redman, which offers a counterbalance to the mechanistic view of lawmaking often conveyed in political science research.

Students meet socially to get to know one another; work as teams to pass an on-line procedural quiz; make and justify their committee assignment requests; nominate leader candidates; decide on a process for choosing leaders and assigning committee members; and then make those selections and assignments.

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### **Legislating (weeks 5-10)**

- ▶ Expert: Bill drafting; Coalition building; Voting decisions
- ▶ Experiential: Bill sponsorship; Committee deliberations; Floor scheduling and debate

In class, the focus is on *operational knowledge*. How do lawmakers build support for their proposals? Each of the subjects (bill drafting; coalition building; voting decisions) is discussed in terms of strategy. How can a bill be constructed to attract support? What are the different ways in which a lawmaker can build support for a proposal (e.g. persuasion, modification, procedure)? What considerations influence lawmakers' voting decisions (and that students who want to be reelected should be thinking about)?

Students research and report on their committees' responsibilities; they draft and introduce at least one major bill on a subject of their choosing (using a provided template); these bills are then referred to committee by the chamber leader. What happens next is entirely up to students. More in class time is set aside for simulation activities such as caucus meetings and floor debates. Although each student must also submit a committee report as an assignment at some point, the only other formal requirement is not due until the end of class - the Final Report on Legislative Accomplishments.

### **Wrapping up (week 10)**

- ▶ Expert: Comparing patterns in the real and mock Congress
- ▶ Experiential: Final Report on Legislative Accomplishments

The simulation ends on the second to last day of the quarter. The very final day is reserved for a debrief and a little fun. As part of the Final Report, each student creates two media pieces. One highlights a theme for their own reelection while the other opposes another legislator's reelection. Posters and other printed material are displayed on the walls while videos are displayed using the overhead projector. I make some broader observations about lawmaking that were reflected in their simulation, including some comparisons to the real Congress (bill success rates tend to be remarkably similar). I then conclude by recognizing a limited number of students who made especially remarkable contributions to the collective learning experience (perhaps because of the high quality of their written work; coalition building efforts; or even their willingness to take risks).

#### **4. It Works! Evidence of Effectiveness**

One of the great (and unanticipated) pleasures of LegSim is that it has changed my view of my role in the classroom from one of dispensing knowledge to one more akin to coaching. I still lecture (and I'm still searching for the right balance) but I now spend a substantial proportion of my class effectively on the sidelines rather than on the field. I do some training and I motivate, but the measure of my success is how my students perform in their roles as quasi-legislators.



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As with any coaching assignment, there are moments of doubt. How long will it take students to realize that they are responsible for making things happen? When is someone going to demonstrate the value of being prepared, the power of information, the importance of agenda control or rules of procedure? Although a little nudge in the form of a reminder that time is moving on is sometimes helpful, my students have always come through.

Exactly how this year's simulation will unfold is much less predictable. This makes the class eminently more interesting to me as the instructor. One year a couple of students thought that their legislature should open with a non-denominational prayer, just like the real Congress. No one objected when these students offered prayers during morning business, but one student complained to university administrators. I soon found myself in a meeting with administrators explaining why I was sanctioning prayers in my classroom. Word got out, and the question of whether a prayer initiated by students as part of a simulation is university sanctioned prayer was sharply debated in discussion threads across campus and beyond.

In the waning hours of another semester, the Republican minority (Republicans are always in the minority in Seattle!) used their knowledge of procedure to delay a final vote on a health care reform bill. The syllabus indicated that the legislature adjourned *sine die* on that day (Wednesday) because I liked to reserve the actual final day (Friday) for a recap. The Democratic leadership then asked me for a little more debate time on Friday. Republican leaders initially agreed, but then had a change of heart. They creatively decided to file a "lawsuit" arguing that the session had officially ended on Wednesday, per the syllabus, so the bill was dead.

I offered the Democrats an opportunity to respond by 5pm Thursday. By midnight Thursday, 24 other students had submitted amicus briefs. And at 9 am Friday morning, the "Supreme Court" (a practicing attorney) issued its written decision. The decision cited one amicus brief as particularly persuasive. The Democrats got their Friday vote and passed the bill. The Republicans were not pleased.

The fact that students own the simulation makes a huge difference in terms of their level of interest and involvement. Some students participate more than others of course. But there is no question that students on the whole are more engaged and take more away from the course. For my own class, the evidence is anecdotal (student feedback and evaluations). In the appendix to this paper, I have included some comments that a student in my most recent class shared with other students and me. These comments (like the activities surrounding the lawsuit discussed above) were unsolicited.<sup>2</sup> But research also underscores the learning benefits of a project-based curriculum that includes LegSim.

### **Experimental Evidence**

One of the criticisms directed at project-based approaches – and educational simulations and games in particular - is that there is little evidence behind the hype. Sure, simulations and

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<sup>2</sup> This particular student was auditing the class and thus did not receive a grade.

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games can be entertaining and engaging, but given that time devoted to “playing games” means that less class time can be devoted to content coverage, is there a net benefit or loss in terms of student comprehension? Recent research examining the educational benefits of games – for example – highlights the fact that games promote certain types of general skills but does not examine whether a game-based curriculum leads to better academic performance (Gee 2000).

For several years we have been collaborating with researchers at the University of Washington School of Education, the George Lucas Educational Foundation, and a Washington school district to implement and test the effectiveness of a project-based AP Government course. The ultimate goal of this project was to assess whether students participating in our “PBL AP” course performed as well on the national AP exam as students in traditional AP course, while accruing other claimed benefits of project-based learning.

The design of this research project is described in detail in a published article (Parker et al. 2011). Briefly, three schools participated in the controlled experiment (314 students). Schools A and C were traditionally high performing high schools (based on past AP Gov test performance). School B was not traditionally high performing on the AP. Schools A and B were “treated” with the PBL AP curriculum while the students in school C enrolled in a traditional AP course. LegSim was only one of the projects of the PBL AP courses, but it was the project most students talked about in their debriefs with researchers.<sup>3</sup>

Student performance was assessed in two ways. First, each student wrote pre-post essay responses to a complex scenario designed to assess their ability to apply what they had learned to a new context.<sup>4</sup> This “deep learning” is one of the claimed advantages of project-based approaches (National Research Council 2002, 1). These essays were then anonymously scored by political science graduate students so that improvement between the pre and post assessments could be compared. Second, students’ performances on a ‘gold standard’ assessment, the national AP exam, were compared. The hope was that the PBL students would do as well (not necessarily better) than the Traditional AP students, and would do better on the “deep learning” assessment.

**Performance on a standardized assessment.** Tables 1 and 2 are reproduced from the Parker et al. article. Overall (comparing columns 3 and 4 of Table 1), the PBL AP classes performed significantly *better* on the AP exam. The average score for a PBL AP student was 2.94, compared to 2.58 for the Traditional AP student. However, the difference is even greater when the comparison considers only the two high performing high schools. Here the average score for the PBL AP student was 3.46 compared to 2.94 for the Traditional AP student. Although students in School B did not score as highly, their AP scores did improve over students from previous years.

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<sup>3</sup> In debriefs, nearly all students cited LegSim as the most valued activity of the course.

<sup>4</sup> These scenarios were based on real world events that were not discussed in class. For example, one placed the student in the role of an advisor to a group opposing an effort by a local government to sell its water rights to a middle-eastern country.

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**Table 1. Performance on the national AP Exam by Treatment Condition**

	PBL AP course School A		PBL AP course School B		Traditional AP course School C		PBL AP course Schools A & B combined	
	(study 1)		(study 2)		(studies 1 & 2)			
	(N=103)		(N=100)		(N=66)		(N=203)	
score of 5	29	28.2%	8	8.0%	4	6.1%	37	18.2%
score of 4	18	17.5%	10	10.0%	9	13.6%	28	13.8%
score of 3	31	30.1%	21	20.0%	21	31.8%	52	25.6%
score of 2	21	20.4%	36	36.0%	19	28.8%	57	28.1%
score of 1	4	3.9%	25	25.0%	13	19.7%	29	14.4%
score 3 or higher	78	75.7%	39	38.0%	34	51.5%	117	57.6%
score 4 or higher	47	45.6%	18	18.0%	13	19.7%	65	32.0%
Mean score	3.46*		2.40		2.58		2.94*	
SD	1.21		1.20		1.14		1.31	

\*p < .05 (comparison between PBL AP course mean and traditional AP course mean).

**Evidence of Deep Learning.** Table 2 addresses the question of whether the PBL AP students showed greater improvement in their essay responses to the complex scenario essay challenges. To reiterate, political science graduate students scored each anonymous essay according to several criteria on a 1-5 scale. Researchers then paired the pre-post responses for each student to assess improvement between the essay completed at the beginning of the course and the one completed at the end of the course. The average improvement was then calculated for each school. Once again, columns 3 and 4 of Table 2 indicate that the PBL AP students showed significantly greater improvement than the students taking the Traditional AP course. School A improved more than School B, but even school B performed significantly better than students in the Traditional AP on this assessment. The school district subsequently required all of its schools to shift to a project-based AP Gov curriculum and is also implementing project-based curricula in other AP subjects.

**Table 2. Complex Scenario Response Improvement by Treatment Condition**

	PBL AP Course School A (study 1)		PBL AP Course School B (study 2)		Traditional AP Course School C (studies 1 & 2)		PBL AP Course Schools A & B Combined	
	(N=95)		(N=78)		(N=91)		(N=173)	
Measure	Mean	(SD)	Mean	(SD)	Mean	(SD)	Mean	(SD)
Overall	2.34*	(0.91)	2.07*	(0.83)	1.61	(0.75)	2.22*	(0.88)
Task & client	2.42*	(0.97)	2.15*	(0.84)	1.62	(0.76)	2.30*	(0.92)
Influencing public policy	2.20*	(0.82)	1.92*	(0.82)	1.53	(0.70)	2.07*	(0.83)
Grasping controversial issues	2.60*	(0.83)	2.13*	(0.77)	1.76	(0.77)	2.38*	(0.88)

\*p < .05 (comparison between PBL AP course mean and traditional AP course mean).

Project-based approaches are not a panacea. Teachers have different capabilities and interests. “Buy-in” is important and teachers have different capabilities and interests. But there’s no question that most students appreciate project-based approaches, and the experiment confirmed that engagement improves learning.

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## **5. So you are thinking about developing a simulation..... A cautionary tale!**

The last thing I wanted to share was the experience of developing educational software. A former executive from Microsoft's education division once told me that "the road is littered with failed educational software projects." By this he meant that educational software is not generally treated with the same respect as textbooks. As a result, schools are less willing to pay what it costs to develop. He wasn't even thinking about small scale political science simulations like LegSim but a quick web search reveals many political science simulations in various states of obsolescence and I now understand why. Starting a software development project is fairly easy. But maintaining and improving it requires sustained effort and resources. We have received a few critical grants along the way,<sup>5</sup> but what really keeps us going are the registration fees we use to pay our part time developer and hosting fees. Thanks to our users!

Regarding developers, we have been lucky. LegSim is a mind bogglingly complex coding project. Sean Kellogg was our main programmer for many years. An undergraduate Political Science major, he taught himself to program as he worked on early versions of LegSim. Though I was able to pay him, his dedication to the project was the primary motivator. Ten years later, Sean finally said "I'm through with LegSim" (I had been waiting to hear that for quite a while). We then went through a dry spell, but we now have another very competent (information science) undergraduate, Hiram Munn, LegSim developer. There's always more to do, partly because our users continue to provide helpful suggestions. Overall, it has been a rewarding experience (particularly when students and instructors share their own positive experiences) and I'm happy to know that we are making a difference.

## **6. And ruined my other classes....**

A student's comment - "education is something you do, not something you get" - has stuck with me over the years. Students value the knowledge they acquire in courses, but knowledge has more impact when it is applied. This is not an original insight, of course, and simulations have been shown to increase students' abilities to integrate knowledge in other fields (Hatano, G. and K. Inagaki, 1986; Bransford, et. al., 2000). But it is also not something frequently seen in social science education.

My other large undergraduate course (also 100 students) is State Politics and Policy (SPP). Many students enroll in SPP expecting an experience similar to my U.S. Congress course. I have specifically avoided LegSim – there's more to state politics than the legislature – but have yet to develop an experiential approach that similarly engages students. I specifically remember looking at students who were so active and engaged in my Congress class, sensing that they seemed completely uninterested in what a visiting speaker - the Secretary of the Department of Health and Human Services or a state Legislator - was saying about the impact of the economic crisis on a wide range of state government functions. The only time that students noticeably

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<sup>5</sup> From the William and Flora Hewlett Foundation, the Dirksen Center for Congressional Studies, the University of Washington, and the George Lucas Educational Foundation.

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engaged was on the subject of higher education tuition. To say the LegSim “ruined” this class is an exaggeration of course, but it did produce feelings of inadequacy and has made me work harder to make the State Politics course more engaging for students.

## **7. Conclusion**

Developing effective experiential learning opportunities can be challenging. Instructors have to cede some control over what students learn, how they learn it, and when they learn it. But research also indicates substantial benefits. There may be less time to cover content, but students are more likely to retain what is covered. It took me longer than it should have to appreciate that engagement is the first step to learning: *“I hear and I forget. I see and I remember. I do and I understand.”*

Compared to traditional didactic approaches, the need to integrate conceptual, procedural and operational knowledge to be successful in a simulation context may better prepare students to transition from school to the professional world and to their roles as citizens. And they can be rewarding and fun - for instructors as well as students.

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## Appendix. A Student Shares his Reflections on a LegSim Simulation with other Students

Since its the last day of class, I thought I'd write up all the things I learned from this simulation. Its definitely been a lot of fun and I learned a lot from it! I'd love to hear what other things you guys have learned from it as well.

You are GOING to be blindsided. It is going to look like everything is going great on your bill, right up until the point that its not, and than it will be too late. Never assume that a lack of objections to your bill means support for your bill. In fact, if you are expecting opposition and you don't get it initially, that is EXTREMELY bad. It doesn't mean you've convinced them, it just means that they haven't bothered to speak out against it. Make sure you find out who's in favor and who's against before it gets to late, or your bill will die before you even know what happened.

Competing bills are just that. Competing. Your opponents will vote No on both, but your supporters will only vote YES on one of them. Make every effort to combine bills whenever possible, otherwise their yays will be your bill's nays, and you will both end up losing.

Do not underestimate just how difficult it is to get a bill passed. Especially anything that is even remotely controversial or different. Don't get cocky and assume your bill will be different.

No idea, no matter how good it is will ever trump the benefit of having allies. Remember you don't just need people to agree with you, you need them to fight for you. Always put in the extra effort to address any concerns they have, and never ever take their support for granted. Otherwise you will lose it.

Facts and figures are very good at reinforcing the support you already have, and can turn potential allies into strong allies. Remember, it isn't enough to just convince people its a good idea you have to back it up as well.

But, while hard facts and figures can strengthen an argument, they do not replace one. By themselves, they will not overcome preconceptions, nor will they will change people's minds. Stories and explanations that are interesting and memorable(and true!), as well as appeals to their own concerns and shared beliefs will go a lot further towards getting them to open up to your idea.

Your peers are not stupid but they are busy. Always assume that your bill is getting minimal attention, and never ever expect them to convince themselves.

Cooler heads can prevail, but only if you take the time to cool off. Don't get caught up in the heat of the argument, and instead focus on coming up with a well thought out response.

It is far more likely that someone does not know about your issue than that they don't care about it. People make their decisions based on what they know, and you will likely have more success bringing up the issues they were not aware of than trying to downplay the importance of the ones they do.

It is extremely difficult to change someone's mind once its been made up. Last minute appeals will only work on the remaining undecided, but otherwise

## Get out of the way!

plan on on your vote being decided before it gets to the floor. Put in the extra effort to make sure its going to go your way. And remember, your opposition is not going to seek you out!

New ideas are very hard to push through, but old ideas are very easy to reuse. Try to spin anything new as a twist on older concept, and avoid coming off as too radical. You want something that seems both practical and different.

It does not matter how well you've thought your bill through. It only matters how well THEY've thought your bill through. Politics is short sighted by nature, and considerably more attention is going to be paid to the NOW rather than the LATER. You can push something with short term gain and long term loss, but you cannot push something with short term loss even if it has strong long term gain. Always make sure you can explain why your bill is good now, and how it will help with the immediate concerns people are having, or you will have a much harder time convincing people to support it.

People will generally choose a bad solution over no solution. Try to come up with a better alternative instead of fighting against the current one.

Do everything you possibly can to get discussion on your bill going BEFORE it comes to a vote. Do not assume that merely hearing your idea will convince them. The more leadway you have to address their concerns before they vote on it, the better chance your bill will have of succeeding.

Get out of the way!

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